## LANGUAGE \& LINGUISTICS IN MELANESIA

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


## LLM SPECIAL ISSUE 2021

Eight Languages of the Admiralty Islands, Papua New Guinea

Sketch 1: Seimat

Robert Blust
University of Hawai'i

## Sketch 1:SEIMAT

### 1.1 INTRODUCTION

As already noted, Seimat is spoken in the Ninigo Lagoon, an extensive reef system located about 370 kilometers northwest of Manus, and extending perhaps fifty kilometers across. Because the inhabitants have limited land with little elevation, they have a particularly close relationship to the sea, one that is reflected in many of the nouns collected. Vincent Tonam spoke vividly of his experiences as a diver when growing up, and it is clear that an intimate familiarity with the sea, its plants and its animal life, is a central feature of the traditional culture of this part of the Admiralties.

Readers who wish to see a more in-depth description of the structure of the language should consult Wozna and Wilson (2005), as this 96-page sketch grammar with 333 sentence examples offers much that I was not able to check during my brief contact with a single speaker. First, they report (2005:4) that their data was "collected from a large number of people from the communities of Pihon, Amix, Lau, Mal and Patexux." Second, their description is "based on thirteen months of fieldwork done between February 2003 and November 2004." My roughly fifteen hours of fieldwork with one speaker from Awin village in the western part of the Ninigo lagoon can hardly be expected to compare with their much broader effort, although in a few cases I have been able to supplement certain details in their grammar sketch. On the other hand, the sketch that I provide includes much more vocabulary, particularly relating to flora and fauna, and to such cultural features as items of material culture. Used together, these two sources provide the best information we currently have on a language that has received little attention from linguists, and that is likely under threat from the dominance of Tok Pisin.

Perhaps the most important (and questionable) statement that appears in the Introduction to Wozna and Wilson (2005) is the following: "There is no dialect variation in Seimat, although some small lexical differences exist between the western islands within the group (Awin, Patexux, Mal, Lau), and the eastern islands (Pihon, Amix, Liot). Within the current corpus these have been calculated at less than $1 \%$.". As will be seen at various points throughout this sketch, there are reasons to question the accuracy of this statement. Although there is broad agreement between my fieldnotes and this grammar, there are both lexical and structural differences (for the latter see below), as where they write alohah 'afternoon', where I recorded aloha (perhaps influenced by my many years in Hawai'i!), kaniup as 'coconut water/green coconut' (2005:19), when the only gloss I have for kan i up (water GEN coconut) is 'coconut water', despite my having collected terms for stages of coconut growth, yax for 'branch', where I have pehe- ( $\eta a x=$ 'finger' in my fieldnotes), papa-n 'its side', where I have popo-n, manihuh for my manexux 'bird', or xux for my hux 'island'. Some of these discrepancies may be due to transcriptional errors on my part, but others may be due to dialect variation, as (pace Wozna and Wilson) we still lack a clear picture of the dialectology of the Ninigo lagoon.

In other cases Wozna and Wilson recognize a wider range of meanings for a term than I have with a gloss that is perhaps incomplete, as with hahalin, glossed 'taboo, forbidden' in both
sources, but also as 'in-law' in the former (p. 61), reflecting a likely mother-in-law avoidance requirement for married men, common in many traditional cultures.

### 1.2 PHONOLOGY

The Seimat consonant inventory is shown in Table 1.1:
Table 1.1: The consonant phonemes of Seimat

| p | t |  | k |  |
| :--- | :--- | :--- | :--- | :--- |
| $m$ | n |  | y |  |
|  | s |  | x | h |
|  | l |  |  |  |
| w |  | y |  |  |

Little needs to be said about the twelve consonants of Seimat, all of which have their expected phonetic values except that /t/ is dental, while /n/, /s/ and /l/ are alveolar. However, this inventory differs in one feature from that of Wozna and Wilson (2005:5), namely in the inclusion of $/ \mathrm{y} /$, which they do not recognize. While this segment is rare, occuring word-initially in only one form in my vocabulary, it is difficult to avoid recognizing it as distinct from /i/ in words such as /ayas/ 'outrigger boom', /hayup/ 'south wind', /tone hunaya-i an/ 'hearth' ('place cook food'), /kayah/ 'tree with wood used to make traditional fireplows', /maya/ 'men's sarong, laplap', /maya/ 'papaya', or /xayo/ 'kind of thin-bodied barracuda', all of which would otherwise occur with an almost unprecedented three-vowel sequence (four for /hunaya-i/). Other reasons for interpreting these as glides are the predictability of stress (see below), and the structural parallelism with /w/, which seems to be uncontroversial (why write e.g. kawiw 'hermit crab', but aias 'outrigger boom', when both have an unstressed high vocoid in intervocalic position?).

A related problem is whether to write a word-final sequence of V (usually /a/) + high vocoid as a vowel-glide sequence or a sequence of two vowels, as with their kiliwau (my kiliwaw) 'to run'. Since Seimat allows both vowels and consonants word-finally, a motivated basis for a decision in such cases is not always easy to find. With -au vs. -aw it may be arbitrary in monosyllabic stems such as xau/xaw 'stone fish corral', but in longer words stress provides a clue. For example, /topiw/ 'sugarcane' is stressed on the / $\mathrm{o} /$, not the $/ \mathrm{i} /$, which would be the expected locus of primary stress if the word were /topiu/. With -ai vs. -ay the matter may also be settled by stress assignment in polysyllables, as with palay [pálaj] 'few' (cp. [paráj] 'to fry', which gets its final stress from the Tok Pisin adaptation of the English loan). In monosyllables motivating a decision may be more difficult, but for transitive verbs such as [xaj] 'to hit, thrash', the fact that the word almost certainly contains the transitive suffix - $i$ decides the matter in favor of a vowel.

In some ways the synchronic phonology of Seimat appears relatively simple. Unlike many Nuclear Micronesian languages to the north, it has a straightforward canonical Oceanic five vowel system, $i, u, e, o, a$, with little allophony. However, Seimat is typologically rare among AN languages in having phonemic vowel nasality, a feature that was recognized sporadically by Smythe (1958), and Z'graggen (1975), but not described systematically until Blust (1998a), who noted that all vowels may appear in both oral and nasal forms, but that these contrast only after
two consonants: /h/ and /w/, as in hũ̃̃-hu 'two (in serial counting)' vs. huohu 'breaking of wave (as in surf)', or wãt 'to sneeze' vs. wat 'monitor lizard'.

Wozna and Wilson (2005:5-6) recognize the same contrast, but state that it was disappearing among the younger speakers with whom they worked, and cite specific examples of words that I recorded with a nasal vowel that they heard only with its oral counterpart. I worked with Vincent Tonam in 1975, when he was 21, which means that he was born in 1953 or 1954, and Wozna and Wilson reportedly collected their data between February, 2003 and November, 2004, at a time when Vincent would have been about 50. Contrasts of oral and nasal vowels were quite clear in his speech when it was recorded, and he was insistent about the differences, but the increasing use of Tok Pisin by the younger generation, and the relatively low functional load of vowel nasality in a language that already has many homophones as a result of the reduction of earlier disyllables to monosyllables, may be working together to eliminate this feature.

The historical basis for this unusual distribution of nasal vowels is explained in Blust (1998a), and will be reiterated in the next section, but before doing that it is worth noting that, according to Wozna and Wilson (2005:6) "There is only one exception: the nasalized vowel sequence /ai/ occurs after the bilabial nasal consonant $/ \mathrm{m} /$, as in $m \tilde{a} \tilde{a} \tilde{a}$ 'clothes'." ${ }^{1}$ Wozna and Wilson present no evidence that nasality is contrastive in this environment, and I believe they have sporadically interpreted the automatic vowel nasality after a nasal consonant as though it is phonemic (or must be counted as phonemic by adopting the 'once a phoneme always a phoneme' principle). Onset-driven nasal spreading is common to many AN languages (Blust 1997), but is rarely reported, even in fairly careful descriptions. For Seimat I recorded all vowels as predictably nasalized after a nasal consonant, and at first allowed this to creep into phonemic transcriptions of some words, as mütumũt for correct mutumut 'vomiting', or moĭh 'to live, be alive' for correct moih. Althgough these have been corrected, some ambiguities remain: I recorded, e.g. [nãhĩ] 'to walk', and [nũhĩ] 'to wash', but it is unclear whether the nasality of the last vowel in these words is phonemic (since it follows $/ \mathrm{h} /$ ), or is due to nasal spreading from the primary nasal consonant earlier in the word. Tentatively, I have adopted the latter interpretation.

Similarly, at first I was writing long vowels in some words, as [ko:w] 'sea cucumber', or [wã:t] 'earthworm]. However, attention to vowel length in surface monosyllables showed that length is predictable in these forms, as duly noted by Wozna and Wilson (2005:6), a product of the 'minimal word constraint', a language universal that requires free morphemes to have at least two moras regardless of the number of syllables they contain.

Wozna and Wilson (2005:5) write the mid vowels as $/ \varepsilon /$ and $/ 0 /$, but I see no reason why they can't be written as /e/ and /o/. My phonetic transcriptions show /e/ as consistently [ $\varepsilon$ ], but they do not show a corresponding laxing of the mid back vowel as a consistent feature (it was recorded occasionally as [ 0 ], but much more often as [o] --- a phonetic detail that could benefit from further checking). In addition, as noted in Blust (1998a:301), I recorded /i/ and /o/ with lowered or laxed allophones in closed syllables.

[^0]Other issues with the vowels concern their alternation with zero, and the underlying form of the genitive marker that appears both as $i$ and as $e$. The first of these issues is pervasive in Seimat as a result of the appearance of thematic vowels in the suffixed forms of surface (C)VC bases, as shown in Table 1.2:

Table 1.2: Thematic vowels in Seimat possessive constructions

| Simple base | $-\mathrm{k}^{\prime} 1 \mathrm{SG}^{\prime}$ | $-\mathrm{m}^{\prime} 2 \mathrm{SG}^{\prime}$ | $-\mathrm{n}^{\prime} 3 \mathrm{SG}{ }^{\prime}$ |  |
| :--- | :--- | :--- | :--- | :--- |
| ut | uti-k | uti-m | uti-n | penis |
| sus | susu-k | susu-m | susu-n | female breast |
| kinaw | kinawe-k | kinawe-m | kinawe-n | neck |
| leh | leho-k | leho-m | leho-n | tongue |
| pul | pula-k | pula-m | pula-n | eye |

As just noted, I assign the thematic vowel in such forms to the stem, while Wozna and Wilson (2005) assign it to the suffix. ${ }^{2}$ They note that the vowel was once unambiguously part of the stem, but nonetheless choose, for unstated reasons, to assign it to the suffix (2005:8, 33). My choice is motivated by the fact that their analysis requires each suffix to have five unpredictable allomorphs, while assignment to the stem creates no such unnecessary complication (since each stem is unique). This situation has arisen primarily because the loss of original final vowels transformed possessive suffixes of the shape ${ }^{*}-\mathrm{gu}, *_{-m u}{ }^{*}-\mathrm{n} a$ to $-k,-m,-n($ or $-V k,-V m,-V n$ ). The same change also applied to progressive verbs of the kind $a \eta$ 'to eat', ayi-ay 'to be eating' or lay 'to sail a canoe', laya-lay 'to go sailing', yielding underlying forms of the shape /ayiani/, /layalaya/, and the like, and this raises the question "What, then, do we do with historical full reduplications that lost a final vowel but show no synchronic alternation, or at least have not been recorded with one, as payapay 'moon, month', or pilipil 'tiger shark'?".

My own preference is to leave the surface forms of reduplications unchanged in their phonemic representations (thus aniay, not **apiani), but to mark the morpheme boundary immediately before the suffix in possessed nouns, although this might be seen as an inconsistency with regard to the representation of underlying stem vowels.

One other area that requires a decision about the abstractness of phonemic representations concerns the genitive marker. In many cases this is clearly $i$, as in Set A:

## Set A

atol i mom (egg GEN chicken) 'chicken egg'
in i pulil (house GEN spider) 'spider web'
kan i pul (water GEN eye) 'tears'
ku i pop (bone GEN side) 'rib'
kuku i in (post GEN house) 'housepost'

[^1]> lok i ae-k (joint GEN leg-1SG) 'my knee'

However, in other cases it is $e$, as in Set B:
Set B
aw e sal (mouth GEN road) 'path, road'3 nan e pul (pus GEN eye) 'sleep in eye'
palon e ah (ash GEN fire) 'ashes of a fire'
pat e up (tree GEN coconut) 'coconut tree'
wah ẽ pata (root GEN tree) 'taproot'
xam e al (radiance GEN sun) 'shimmer on water'
In each of the six cases in Set B there is either synchronic or historical evidence (or both) that the noun preceding the genitive marker ends or ended in $-a$, and this is not the case for any form in Set A). The use of $e$ in these words thus appears to be due to a process of assimilation in which $a+i>e$, and given the variation of $i$ with $e$ under these conditions this difference of form can be attributed to a synchronic phonological process. So far this is fine, but $a+i$ do not coalesce to a mid front vowel when the following high front vowel is the transitive suffix, as seen in Set C):

Set C
axa-i 'to whet, sharpen a blade'
hasa-i 'to string, as fish'
paxa-i 'to see, look at' pula-i 'to mend, repair something'
sana-i 'to split' xa-i 'to hit with a stick, thrash'

In at least three forms in my fieldnotes $a+i$ also do not coalesce when the high front vowel is the genitive marker:

Set D
hua i up $=$ [huáj up] </hua i up/ 'coconut'
pul i xixi < /pula i xixi/ 'callus' (lit. 'fish eye')
wah ẽ ka i lah < /wahã i ka i lah/ 'betel pepper'
The last of these examples is striking in that the genitive marker coalesces with the preceding low vowel in /wahã i/ > [wahẽ] 'root of', but not in /ka i/ 'leaf of' (the entire collocation being literaally 'root of leaf of areca palm').

In addition, an underlying $o+i$ appears to coalesce to a surface genitive marker $e$ in thax e mina- $k$ 'finger of my hand' (cp. yaxo-k, yaxo-m, yaxo-n). Given these various problems, I have opted to write the genitive marker as it appears in its surface form, hence as either $i$ or $e$.

[^2]In other cases a sequence of $a+i$ has combined to form a diphthong in normal speech, as seen in ka i pata 'leaf of a tree', which was recorded as [kaj páta], or /wahã i ka i lah/ 'betel pepper', which was transcribed as [wahêkájlah].

Wozna and Wilson (2005:7) note "There is no evidence of contrastive stress in Seimat. Stress normally occurs on the penultimate syllable of a word, except in a small group of trisyllabic words where reduplication occurs. In this case the primary stress occurs on the antepenult and secondary stress on the ultima." They illustrate this process with the words for 'moon', and 'conch shell trumpet'. My marking of stress is sporadic (more consistent during the early phase of elicitation, and less so later), but generally agrees with the above statement. The only additional comment I would make is that in hưwõpànim 'ten'primary stress was recorded on the first syllable rather than the antepenult, but this may have more to do with the morphological structure of this word (hũ̃ + panim) than with a general principle of prosody.

Finally, although Seimat allows word-final consonants, it does not allow consonant clusters, and with two exceptions in my data (haniaumay 'kind of unicorn fish', tawisaean : morning star/evening star: Venus'), vowel sequences are limited to two members.

### 1.3 GRAMMAR

Given limited contact hours and the focus on phonology and lexicon as part of a survey intended to determine genetic relationships, grammatical information in my fieldnotes is limited. The categories covered are 1.3.1. the counting system, 1.3.2 personal pronouns, 1.3.3. possessive pronouns, 1.3.4. demonstrative pronouns, 1.3.5. directionals, 1.3.6. questions, 1.3.7. causatives, 1.3.8. the attributive suffix, 1.3.9. the transitive suffix, 1.3.10. imperatives, 1.3.11. tense and aspect, and 1.3.12. miscellaneous (a catch-all for anything that does not fit the other categories).
1.3.1 The counting system. The basic numerals used in serial counting are shown in Table 1.3: ${ }^{4}$

Table 1.3: Seimat numerals used in serial counting

| tehu | one |
| :--- | :--- |
| hũõhu | two |
| toluhu | three |
| hinalo | four |
| tepanim | five |
| tepanim tehu | six |
| tepanim hũõhu | seven |
| tepanim toluhu | eight |
| tepanim hinalo | nine |
| hũõ-panim | ten |
| hũõ-panim tehu | eleven, etc. |
| tolu-pa | fifteen |
| tolu-pa tehu | sixteen, etc. |

[^3]seilon tel
seilon tolu
seilon hinalo
seilon tepanim
seilon tepanim tel
seilon tepanim hũhũa
seilon tepanim tolu
seilon tepanim hinalo
patei tel
twenty
thirty
forty
fifty
sixty
seventy
eighty
ninety
one hundred

Certain features of the numerals call for comment. Setting aside historical issues that will be addressed below, the first thing to notice is that this is a quinary system, where $6-9$ are $5+1,5+2$, etc., and 10 is $2 \times 5$. The word for 'five' itself is preceded by what appears to be a clitic form of 'one', suggesting that it may earlier have been a noun. This is supported by Wuvulu and Aua pani- 'hand', pani-m 'your hand', although Seimat now uses mina- for 'hand'. The idea that the Seimat numeral system is based on human body parts is, however, further supported by the word for 'twenty' which is literally 'one man' (all fingers and toes). Alone among the languages of the Admiralties, Seimat uses the word for 'person, human being' for ' 20 ', clearly a collective representation for all the digits of the hands and feet. The only other Austronesian languages known to use 'one person' to mean 'twenty' are certain languages in New Guinea, and Iaai, spoken on the island of Uvea in the Loyalty islands of southern Melanesia. Since 'one person' is commonly used in Papuan languages as a word for 'twenty', one is tempted to see the Seimat innovation as reflecting a Papuan substrate. What is puzzling about this is that Seimat is spoken in a location that requires considerable sailing skill to reach, and judging from phenotype it is doubtful that the Ninigo lagoon was ever populated by Papuan speakers. On the other hand, it is also unlikely that the Seimat numeral system could have been subject to Papuan contact influence on Manus, since nearly all languages of the eastern Admiralties preserve a modified form of the Proto-Oceanic decimal system.

My data differ from Wozna and Wilson's in the numerals 30-90, which they give as seilon tel h:uopanim '30', seilon h:uh:ua '40', seilon h:uh:ua h:uopanim '50', (where $h$ : = nasalization of the following vowel), seilon tolu ' 60 ', seilon tolu h:uopanim ' 70 ', seilon hinalo ' 80 ', seilon hinalo h:uopanim ' '90', and in recording patei tel as against their seilon tepanim ('five people') ' 100 '. The speaker with whom I worked was very confident of his knowledge of the language, and I take it that his numerals $30-90$ reflect a decimalization of the Seimat system under modern influences, whereas Wozna and Wilson's data represent the earlier vigesimal system.

Other observations that emerge from a purely synchronic consideration of the material in Table 1 are: 1. the -CV in tehu, hũõhu, and toluhu is a separate morpheme, as shown by its absence in te('five'), hũhũa ('seventy') and tolu ('fifteen', 'thirty', etc.), 2. the morpheme for 'one' has two allomorphs, te- and tel, and 3. the morpheme for 'two' has two allomorphs, hüã and hũõ.

In addition to the numerals used in serial counting Seimat has partially differing sets used to count members of various noun classes. Wozna and Wilson (2005:22-24) illustrate sixteen of these which, using the form of the numeral 'one' to mark each class, have the following form: 1. tel (with people), 2. tok (with animals, including dogs, birds, fish, but also bananas), 3. tea (with
long objects, including trees, canoes, and knives), 4. tehu (a 'general' category that includes houses, stones, spears and nights in the examples given), 5. teik (with pieces or amounts of larger objects), 6. tepaun (with body parts), 7. tewasa (with bunches, as of bananas or betel nuts), 8 . teka (with leaves), 9. tesol (with places or groups of things, including gardens, places of work or play, groups of children or gardens, etc.), 10. tepap (with palms, roofs and planks), 11. teŋax (with fingers and branches, as of trees or branching coral), 12. temot (with coconuts and eggs), 13. tehot (with fire), 14. texux (with islands), 15. tenen (given as 'undetermined', but includes stories, songs, and customs), 16. tewau (also given as 'undetermined', but includes windows, villages and holes).

They illustrate pattern 1 with the word for 'person' (seilon). I recorded it with the word for 'child' (akaik), as seen in Table 1.4:

Table 1.4: Seimat numerals used in counting people

| tel akaik | one child <br> two children |
| :--- | :--- |
| hũhũã akaik | three children |
| tolu akaik | four children |
| hinalo akaik | five children |
| te-panim akaik | six children |
| te-panim tel akaik | seven children |
| te-panim hũhũa akaik | eight children |
| te-panim tolu akaik | nine children |
| te-panim hinalo akaik | ten children |
| hũõ-panim akaik | eleven children, etc. |
| hũõ-panim tel akaik |  |

Similarly, they illustrate pattern 2 with the word for 'dog' (sinen). I recorded it with the word for 'pig' (pow), as seen in Table 1.5:

Table 1.5: Seimat numerals used in counting animals
t-ok pow
hũ-õk pow
tolu-ok pow
hinalo pow
te-panim pow
te-panim t-ok pow
te-panim hũ-ok pow
te-panim tolu-ok pow
te-panim hinalo pow
hũõ-panim pow
hũõ-panim t-ok pow
one pig
two pigs
three pigs
four pigs
five pigs
six pigs
seven pigs
eight pigs
nine pigs
ten pigs
eleven pigs, etc.

The other patterns are illustrated briefly (from 1-4) in Wozna and Wilson (2005:22-24), and will not be repeated here except to show the category for long objects in relation to trees, in Table 1.6:

Table 1.6: Seimat numerals used in counting trees

| te-a pata | one tree |
| :--- | :--- |
| hũ-a pata | two trees |
| tolu-a pata | three trees |
| hinalo pata | four trees |
| te-panim pata | five trees |
| te-panim tea pata | six trees |
| te-panim hũ-a pata | seven trees, etc. |

For most noun classes a phonologically dependent numeral classifier (-ok for animals, -a for long objects, $-h u$ for houses, etc.) is used only for the numbers 1-3, and for those composite higher numerals that repeat these, namely 6-8. The numerals $4,5,9$ and 10 appear to be identical in all noun classes. The single exceptional form is tel 'one', which appears to be te- 'one' plus a classifier $-l$. However, since $-l$ occurs with no other numeral, it appears best for now to treat tel as an unconditioned allomorph of te-. In general readers may refer to the treatment in Wozna and Wilson (2005:20-24) for further illustration of the system of numeral classifiers. Sounding a familiar warning, they state (p. 20) "The increased use of English numerals, felt to be easier, means that Seimat numerals are slowly disappearing. Only the numbers from one to twenty are still commonly used on a daily basis."

The only other observations that I can add here are that I recorded the same classifiers for counting ropes and animals on the one hand ( $t$-ok tal 'one rope', $t$-ok xixi 'one fish'), and for counting bunches of betel nuts and leaves on the other (te-ka tuep 'one bunch of betel nuts', te-ka ka i pata 'one leaf'), adding some detail to what is found in Wozna and Wilson.
1.3.2. Personal pronouns. Seimat personal pronouns occur in singular, dual and plural numbers. My fieldnotes on these are incomplete, and the reader is best referred to Wozna and Wilson (2005:10), whose description is repeated in Table 1.7, with morpheme boundaries added:

Table 1.7: Seimat personal/free pronouns (after Wozna and Wilson 2005)

|  | 1IN | 1EX | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| SG |  | ya | o | i |
| DL | ka-lu | ami-li | amu-lu | la-lu |
| PL limited | ka-ko | ami-te | amu-to | la-to |
| PL extended | ka-ha | ai-ha | au-ha | la-ha |

The reader will notice that there is allomorphy in the dual and limited plural markers. To the extent that this involves the vowels there is agreement in backness between the vowel of the suffix and the last vowel of the stem ( $-l i$ and -te after ami-, but $-l u$ and $-t o$ after other stems). In
addition the first person inclusive limited plural form shows $k$ - rather than the more general $t$-, presumably in agreement with the initial consonant of the stem. In neither case is this due to a general property of the language, since the sequences $i C u$, $i C o$ and $k V t$ are well-attested in the lexicon (ninu 'white cowrie', tinun 'feverish', alikomen-i 'to bend something soft, as a mat', ipon 'night', katu 'scar', kakatop 'fishnet float', etc.). ${ }^{5}$ In addition, the stem for the non-singular form of the first person exclusive and second person shows unexplained variation between $a m i \sim a i$ and $a т и \sim a u$. Although morpheme boundaries will generally be marked for active affixes elsewhere in this sketch, they will be ignored henceforth for the pronouns.

In my own fieldnotes these pronouns occur as subjects of both transitive and intransitive verbs, and in object position:

1) ya mali-wen 1SG laugh-PAST 'I laughed'
2) ŋa/o/i ani-aŋ hula

1/2/3SG eat.PROG taro
'I am eating taro/you are eating taro, $\mathrm{s} / \mathrm{he}$ is eating taro'
3) ya paxa-i i

1SG see-TR 3SG 'I see him/her'
4) i paxa-i ya

3SG see-TR SG 'S/he sees me'

Wozna and Wilson (2005:10-12) recognize an important distinction that was not apparent in my more limited grammatical data, namely a difference between what they call 'limited' and 'extended' plural reference, which they illustrate with sentence 5), and explain as follows (2005:11): "The word kako 'we' in the first clause indicates the group the speaker knows and is part of, whereas kaha 'we' in the second clause includes people that the speaker does not know or who form a separate group."
5) Kako pak ape kaha hatesol pak ulea

1PL.IN sing then 1PL.IN.EXT all sing do.again 'We (and my friends) will sing, and then all of us will sing again'

On the other hand, one feature of interest that turned up in my limited data, but that I do not find in Wozna and Wilson, concerns the structure of conjoined subjects or objects. Singular nominal subjects do not require a resumptive pronoun (it is optional), as shown in 6-8) but conjoined subjects do, as shown in 9 ) and 10):
6) John (i) aŋi-ay

John 3SG eat-PROG
'John is eating'

[^4]7) John (i) aŋi-aŋ hula John 3SG eat-PROG taro 'John is eating taro'
8) John nijah-i Vincent pexuh John see-TR Vincent beach 'John saw Vincent at the beach'
9) John ma Mary lalu ani-ay hula John and Mary 3DL eat-PROG taro 'John and Mary are eating taro'
10) John ma Mary lalu nijah-i Vincent pexuh John and Mary 3DL see-TR Vincent beach 'John and Mary saw Vincent at the beach'

Judging from a single sentence 11) the same appears to be true of conjoined objects:
11) ya nijah-i John ma Mary lalu pexuh 1SG see-TR John and Mary 3DL beach 'I saw John and Mary at the beach'

Finally, as in many other Oceanic languages, a conjoined subject that contains a noun and a pronoun is expressed with the first person dual exclusive pronoun followed by the nominal subject in what Lichtenberk (2000) terms an inclusory construction, as in 12), a feature also noted in a single sentence by Wozna and Wilson (2005:33):
12) ami-li John kiliwaw hani Manus letu

1DL.EX John travel to Manus tomorrow
'John and I will go to Manus tomorrow'
One other feature of the preceding sentences that is puzzling is the absence of a general locative preposition in sentences (8), (10) and (11), given the allative marker in (12). Wozna and Wilson (2005:46) use he 'LOC' in similar constructions, such as 'I was working in the garden', but I recorded nothing of the kind.
1.3.3. Possessive pronouns. As with the personal pronouns, my fieldnotes on possessive pronouns are incomplete, and the reader is therefore referred to Wozna and Wilson (2005:10), whose description is repeated in Table 1.8, with morpheme boundaries added:

Table 1.8: Seimat possessive pronouns (after Wozna and Wilson 2005)

SG
DL
PL limited -(V)ka-ko
PL extended -(V)ka-ha

1EX
-k
-(V)mi-li
-(V)mu-lu
-n
-(V)la-lu
-(V)mi-te -(V)mu-to -(V)la-to
-(V)i-ha -(V)u-ha
-(V)la-ha

An example from my own fieldnotes is the following possessive paradigm for min 'hand' (the speaker did not offer an extended plural set):

|  | 1IN | 1EX | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| SG |  | mina-k | mina-m | mina-n |
| DL | mina kalu | mina mili | mina mulu | mina lalu |
| PL | mina kako | mina mite | mina muto | mina lato |

As can be seen, the only significant formal difference between personal/free pronouns and possessive pronouns in Seimat is seen in the singular forms. All other possessive pronouns are identical to their free pronoun equivalents except in having an optional initial vowel, and in lacking the first stem vowel of the dual and plural forms.

In POC and many of its descendants inalienable nouns, such as body parts or kin terms, are directly possessed with a suffixed pronoun, and alienable nouns (most other things) are indirectly possessed by suffixing the possessive pronoun to a separate morpheme (sometimes called a 'possessive classifier') that may distinguish general, edible, and drinkable possession, or in some cases other types of possessive relationship. Seimat shares many of the features of this system, but differs from it in an interesting way. To see this the Seimat system is compared in skeletal form with the pronominal possessive system of Fijian, representing a canonical Oceanic type; N $=$ noun, and direct possession is marked for 3SG; articles are ignored:

|  | Direct | Edible | Drinkable | General |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| Fijian | N-na | ke-na N | me-na N | no-na N |
| Seimat | N-n | ana-n N | unuma-n N | N-n |

Wozna and Wilson (2005:33) observe that "In Seimat, all nouns can be directly possessed." This might initially give the false impression that Seimat lacks the alienable/inalienable possessive distinction, but as seen above, that is not the case. As they themselves point out, Seimat makes this distinction, and they identify not just three, but five possessive classifiers, as shown in Table 1.9 , illustrated for first person singular (with morpheme boundary moved to assign the thematic vowel to the stem):

Table 1.9: Seimat possessive classifiers (after Wozna and Wilson 2005:37)
welu-k
tupu-k
ana-k
unuma-k

eta-k $\quad$| classifier for cultivated plants |
| :--- |
| classifier for animals looked after |
| classifier for food intended to be eaten |

In addition to these I recorded a possessive classifer for things to chew, illustrated with what I have written uxa-k topiw 'my sugarcane (to chew)'. ${ }^{6}$ Seimat differs from the canonical Oceanic pattern for pronominal possession, then, in marking both direct possession of inalienable nouns and general possession of alienable nouns with a possessive pronoun suffixed directly to the possessed noun. I recorded singular possessive forms for most nouns that fall into the typical Oceanic 'inalienable' category, as with min 'hand', mina-k 'my hand', mina-m 'your hand', mina-n 'his/her hand', but did not do so for nouns that fall into the typical Oceanic 'alienable' category. However, Wozna and Wilson have such forms, and they follow the same pattern, as with in 'house', ina-k 'my house', iŋa-m 'your house', iya-n 'his/her house', or kin 'garden', kine-k 'my garden', kine-m 'your garden', kine-n 'his/her garden'. For this reason Wozna and Wilson were able to state correctly that "In Seimat, all nouns can be directly possessed."

As seen above with uxa-k topiw 'my sugarcane (to chew)', my marking of morpheme boundaries differs from that of Wozna and Wilson in that, wherever possible, I represent the possessive suffixes by a single invariant form. While the vowel preceding the possessive suffix is synchronically unpredictable, where reliable etymologies are available it usually reflects a historical vowel that was lost in word-final position, but preserved before a suffix. The issues about synchronic representation that this kind of alternation raises have been discussed in the Oceanic context before in relation to thematic consonants that appear preceding a suffixal vowel in Polynesian languages, as with Samoan inu 'to drink', inu-mia/inum-ia 'be drunk by s.o.' (Hale 1968). In the Polynesian case abstract underlying forms with fnal consonants which allowed a single allomorph of the verbal suffix were rejected by native speakers on the grounds that Polynesian languages lack surface final consonants. In Seimat the issue is, in a sense, reversed, since here it is the underlying presence or absence of a final vowel that is at issue, and since Seimat has surface forms with both final consonants and final vowels, the outright rejection of an underlying form such as /awa/ 'mouth', based on surface forms aw 'mouth', awa-k 'my mouth', etc. cannot be justified by appeal to native speaker intuition about possible canonical forms (more on this below).

One other matter that requires further discussion concerns a different pattern of possessive suffixation for some nouns. Since POC had the five vowels $*_{i}, *_{u}, *^{e}$, $*_{o}$ and $* a$, the reflexes of any of these can appear as thematic vowels before a suffixal consonant in Seimat. However, Wozna and Wilson (2005:33) recognize not five, but seven thematic vowels or vowel sequences: "The thematic vowel in these suffixes, symbolised by (V), stands for any of the vowels $i, e, a, o$, $u$ as well as for the vowel sequences $a u$ or aia. We estimate that $80-90$ percent of noun roots take $a u$ as their thematic vowel, but there is a minority in which the vowel is unpredictable and therefore lexically specified."

This statement contrasts with my fieldnotes, as reflected in the attached vocabulary, where the singular possessive forms are included after most nouns, and these almost always take a single thematic vowel (for example, twelve of the thirteen possessed nouns in the /a/ section of the vocabulary have a single thematic vowel, and where etymologies are available this is what is historically expected). I did record some examples of $a u$-, but very few, and given my limited data I recorded only one instance of aia- (which I write aya-): hanaw 'breath; to breathe', hanaw

[^5]aya- $k$ 'my breath', etc. The reason for this rather striking discrepancy remains unclear, but may be due to dialect differences that are still poorly understood.

Both $a u$ - and aya- differ from other possessive classifiers in following the possessed noun rather than preceding it, suggesting that they originated from a different word class. The clearest example of a possessive pronoun attached to $a u$ - in my data for the Awin dialect is perhaps the English word 'pen', which is possessed in sentences such as:
13) te-tea e pen au-k
one COP pen $a u-1$ SG
'This is my pen' or 'This one is my pen'.
Alternatively, I was given the following option with the same meaning:

| (14) | pen | au-k |
| :--- | :--- | :--- |
| pen | $a u-1$ SG | te-tea |
| this.one |  |  |

Here the possessive pronoun is suffixed to the possessive classifier $a u$-, of unknown meaning and function, rather than directly to the possessed noun. A native form with the same pattern is shown here as part of a complete first person singular possessive paradigm for 'coconut':


A second native form which exhibits the same pattern is puhĩsis 'back of the head', puhĩsis au-k 'the back of my head', which cannot be /puhĩsisau-k/, since the phonological change which gave rise to synchronic vowel alternations before possessive suffixes was single vowel deletion, not the deletion of a vowel sequence. Other cases, such as 'armpit', which was recorded only in a possessed form as $a k a k a u k$, etc., are less clear (= akak au-k, etc., or $a k a k a u-k$, etc.?). Tentatively, I analyze these as taking $a u$ - possessive marking.

This construction does not appear to show any semantic difference from one with direct suffixation, so the condition for using $a u$ - remains unclear. In native words that end with a
consonant this was historically followed by a thematic vowel which reappears under suffixation in synchronic alternations, as with pat 'head', patu-k 'my head', but no thematic vowel is available for 'pen', perhaps forcing an alternative method of possessive suffixation. However, this analysis cannot explain the lexically unpredictable use of $a u$ - in native morphemes.

One other way in which Seimat possessive marking differs from that of most Oceanic languages, but resembles a pattern found in some languages of the eastern Admiralties, is that body part terms can occur in unpossessed form, something that is impossible in most languages that distinguish alienable from inalienable possession (where an unsuffixed body-part word would be conceptualized by at least some speakers as though it were detached from the body). Wozna and Wilson (2005:35) describe this as rare, and list just four examples: min 'hand', nis 'teeth', pul 'eye', and taxiy 'ear'. However, in addition to these I recorded many more, all of which were said to mark a general category without reference to individual possession. A small sample includes: aw 'mouth', kaw 'forehead', leh 'tongue', pat 'head', put 'navel', sok 'body hair', sus 'female breast', uk 'head hair', ut 'penis', waku 'testicles', and xoh 'gums'. By contrast, it is notable that all kin terms that I recorded were obligatorily possessed.

Finally, some possessive constructions present problems of morphological analysis for which a clear solution is yet to be found. For example, the forms un 'to drink (intr.)', and unu-un 'to be drinking (intr.)' indicate an abstract base form /unu/, which the transitive counterpart unum-i 'to drink (something)' allows to be extended to /unum/. However, when this is nominalized as unumak 'my thing to drink' a question arises as to where to place the morpheme boundary for the possessive pronoun. The most straightforward solution would be to write unuma-k, with the 1SG possessive marker suffixed to a vowel-final base. However, this implies a base /unuma/ which is otherwise unknown. Alternatively, we could write unum-ak, which regularizes the base, but creates an allomorph of the possessive suffix which is idiosyncratic. Ultimately neither of these solutions works, and we are left to conclude that unumak contains an unexplained low vowel inserted between the base and the possessive pronoun.
1.3.4. Demonstratives. In a description of just over one page, Wozna and Wilson (2005:19-20) state that "There are no articles in Seimat and the demonstrative system is simple. There are two demonstratives, ie 'this' and io 'that', which follow the head noun." Although my data sample regarding demonstratives probably is smaller than theirs, it contains some features which suggest significant differences from the material they recorded.

The first thing to point out is that demonstrative pronouns such as 'this' or 'that' have the same shape, or a very similar one to the corresponding adverbs 'here' and 'there' in many AN languages, and this also seems to be the case in Seimat. In this connection it is worth noting that I recorded a three-way distinction in distance for both the demonstrative and adverbial uses of these morphemes, as seen in sentences 19a-c) and 20a-c):

| 19a) | tea | ie | e | pen | au-k | 'This is my pen' |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 19b) | tea | io | e | pen | au-k | 'That is my pen' (not near hearer) |
| $19 \mathrm{c})$ | tea | ien | e | pen | au-k | 'That is my pen' (further away?) |
|  | one | DEM | COP | pen | CL-1SG |  |


| 20a) | pen | au-k | ie | 'My pen is here' |
| :--- | :--- | :--- | :--- | :--- |
| 20b) | pen | au-k | io | 'My pen is there', (not near hearer) |
| 20c) | pen | au-k | ien | 'My pen is there' (further away?) |

Given the use of 'one' in 19a-c the English translation here might better be rendered as 'This/that one is my pen'. Wozna and Wilson (2005:19) also note the use of ien in Seimat, but state that in their data it is a discourse marker: "A third demonstrative ien is not a spatial demonstrative, but is primarily used to refer back to entities which have been established in the discourse." They illustrate this with sentences such as tehu kompani ien kahui ha-solia ya (CL company that pay CAUS-do.well 1SG) 'That company paid me well'. I have no doubt that their description is accurate for the dialect group they represent (the eastern group), and it is possible that ien also functions as a discourse marker in Awin and other dialects of the western group. However, this is not the case in the above sentences, first because they were recorded in isolation, and so have no discourse context, and second because the speaker clearly associated all three demonstratives as members of a set relating to spatial reference. In at least Awin, then, it appears that there is a three-way distinction in spatial demonstratives, although the semantic parameters of the nonproximal deictic remain unclear
1.3.5. Locatives and directionals. Wozna and Wilson (2005:50-52) briefly describe a set of venitive and allative suffixes (marked respectively by -ma and -wa, as in i nahi-ma 'He comes (here)' vs. i nahi-wa 'He goes (there)'), together with several other directional suffixes, and the reader is referred to their sketch for more information on these. In addition, I recorded a set of locative or directional prepositions that are used for indicating the spatial relationship of a referent to its surroundings. These are illustrated in sentences 21)-29):
21) sinen e mat-e if dog COP front-GEN house 'A dog is in front of the house'
22) sinen e puhuy in dog COP behind house 'A dog is behind the house'

| $\operatorname{manexux}$ | e | patul | hon | in |
| :--- | :--- | :--- | :--- | :--- |
| bird | COP | on top | roof | house | 'A bird is on top of the house'

24) weiko e ahitake hat
snake COP under stone 'A snake is under the stone'
25) 

| xixi | leili | po |
| :--- | :--- | :--- |
| fish | inside | basket |
| 'A fish is inside the basket' |  |  |



Wozna and Wilson (2005:65-68) identify five locative nouns with similar functions, which they give as 1. hahitak 'under, underneath', 2. melal 'outside', 3. patalal 'in the middle', 4. tehit 'at the back', and 5 . wasol 'between'. I unfortunately did not record semantic equivalents for 2,3 or 5, but for 1 and 4 the forms I have differ either in phonemic shape (hahitak vs. ahitake), in both phonemic shape and meaning (tehĩt = 'back' as a body part), or in cognation (tehit vs. puhuy). In addition, although wasol may also mean 'between', I recorded it as 'passage through the reef' (hence space 'between' the sides of the coral obstruction). What this strongly suggests is that the dialect of Awin village differs in various particulars from what is perhaps the more 'standard' form of the language recorded over a wider area by Wozna and Wilson.
1.3.6. Questions. I recorded a small amount of material relating to wh- questions, formed with 1. aita 'who?', 2. nake 'why?', 3. la 'what?', 4. lokon 'when?', 5. ia 'where?', 6. ukekia 'how?', and 7. hil 'how much/many?' These are illustrated in sentences 30-39), along with the answers that were supplied to those questions where these were recorded:
aita ani ana-k xixi
who eat CL-1SG fish
'Who ate my fish (that I intended to eat)?
31) John ani ana-m xixi

John eat CL-2SG fish
'John ate your fish'
32) nake lahan John ani ana-k xixi
why ? John eat CL-1SG fish 'Why did John eat my fish?'
33) i ani nake i hitol

3SG eat because 3SG hungry
'He ate it because he was hungry'
34) o ani la

2SG eat what
'What did you eat?'
35) ya ani-wen hula

1SG eat-past taro
'I ate taro'
36) lokon o tike xixi
when 2SG catch fish
'When did you catch the fish?'
37) o tike xixi ia

2SG catch fish where
'Where did you catch the fish?'
38) o tike ukekia xixi

2SG catch how fish
'How did you catch the fish?'
39) hil xixi o tixe
how many fish 2SG catch
'How many fish did you catch?'
My data is insufficient to determine why 'who?, 'why?, 'when?' and 'how many?' occur sentence-initially, while 'what?'and 'where?' occur sentence-finally, and 'how?' is placed between the verb and object.

Finally, although the question 'What is your name?' takes the personal interrogative 'who' as the question word in many AN languages (Blust 2013:509-511), Seimat instead uses 'what':
40) axa-m la
name-2SG what
'What is your name?'
Little information was collected on yes-no questions, but examples such as the following suggest that these are formed largely by a shift of intonation (rising on the question, falling on the answer, symbolized by upper-case vowels here). This is supported by a statement to the same effect in Wozna and Wilson (2005:76).
tahulo [tahulO] 'Is it deep?'
tahulo [tAhulo] '(Yes), it's deep'
1.3.7. Causatives. Wozna and Wilson identify a number of affixes that are important in wordformation proceses, and several of these also occur in my less extensive data. The first of these
is the causative prefix ha-, which I recorded in ha-puta 'to drop, throw down' (cp. puta-put 'falling from a height'), and in the following sentences:

| 41) | i | ha-to-na | ya |
| :--- | :--- | :--- | :--- |
|  | 3SG | CAUS-sit-? | 1SG |

'He made me sit down'
42) i ha-tu-hĩ ŋa

3SG CAUS-stand-? 1SG
'He made me stand up'
43) i ha-tani ya

3SG CAUS-cry 1SG
'He made me cry'
44) i ha-hia an

3SG CAUS-hot food
'She heated the food'

In the last of these examples a free base hia was said not to occur in the language. One recorded example suggests that the causative prefix is sometimes used in deverbal nominalizations: honohoy 'to be hearing', ha-hoŋo-hoy 'messenger, herald' (i.e. one who spreads the news by causing others to hear/letting others hear).

Wozna and Wilson (2005:44-45) make the interesting observation that for verbs that end with a vowel the causative construction is formed by ha- alone, but for verbs that end with a consonant the thematic vowel that normally appears under suffixation, or in the first iteration of full reduplications, surfaces again. This is seen above in ha-tayi, and in four forms that they cite. Why this should be is unclear, since alternations involving thematic vowels in Seimat result historically from final vowel deletion, and there is no reason why a final vowel would resist deletion just because the base in which it occurs carries the causative prefix. In another context Wozna and Wilson (2005:26) also observe that when the prefix ha- is added to a numeral it signals 'all' + numeral, as in ha-tolu 'all three (of people)', or ha-tolu-ok 'all three (of animals)'. They do not identify this with the causative prefix, but given reflexes of PAN *pa- or *pa-kawith numerals in many AN languages to signify such meanings, as with PMP *paka-telu 'to triple, multiply by three' (Blust and Trussel 2020) it is clear these are the same morpheme, with a slight semantic change in Seimat (as Wozna and Wilson 2005:25 note, multiplicatives in Seimat are formed with the suffix -lak).
1.3.8. The attributive suffix. Wozna and Wilson (2005:29) state that "Adjectives are derived from verbs and morphologically come under two patterns: those that end in $-n$ (very common) and those that do not." This is something that is prominent in my field data, and was noted at the time of collection, when it was concluded that there are two types of evidence that a suffix -an marks attributive relationships. The first of these is from alternations in which -an distinguishes a non-attributive base from an attributive derivative, or where an attributive base was recorded
with and without a suffix -an, as in $a x$ 'smoke, dust' : axu-an 'smoky, dusty', tax 'sea, saltwater' : taxi-an 'salty', or tahulo ~ tahulo-an 'deep' (note that in my more limited data the bases are nouns, or non-suffixed forms of adjectives, not verbs). The second type of evidence appears in listing all recorded words in this semantic class, the great majority of which have more than two syllables, and end in -an, as shown in Table 1.10 (forms with synchronic morpheme boundaries are marked with a hyphen):

Table 1.10: Evidence for Seimat -an 'marker of attribution'

```
ailan 'hard, like stone'
ayian 'sharp (point, blade)'
axaxawan 'blue'
axu-an 'smoky, dusty'
huhan 'full (container)'
kaka-n 'red'
kawatan 'heavy'
kekean 'hot (food, sun)'
kosenan 'quick, fast'
kukunan 'short (length, height)'
makan 'ripe'
makian 'cold (food, weather)'
mamanahan 'wide'
manukan 'raw, uncooked'
maxayan 'bad-tasting'
```

```
moloan 'painful'
nuxan 'lazy'
pusoan 'tired, fatigued'
salan 'correct, true'
solian 'good'
tahulo-an 'deep'
taloian 'quick, fast'
tanenan 'calm, still (water)'
taxi-an 'salty'
tilokoan 'dark'
uxeyan 'itchy'
wayinian 'sour'
watilan 'rotten, crumbling (wood)'
waxexan 'wet'
xewan 'clear (water)'
```

In addition to these 30 examples a smaller number of attributive words (stative verbs or adjectives) end with some other vowel preceding a final $-n$ : asekun 'crippled, lame', axun 'wounded', kakawin 'crooked', kuewen 'old (from earlier times)', lialun 'bad', loloen 'descending, setting', makalokalon 'bald’, malun 'cooked', moih-in 'living, alive', omiomin 'narrow (as a road)', paon 'sweet', papaxaxun 'white', tinun 'feverish, sick', wakiakin 'soft', wanen 'true, genuine', xoixohin 'near'. There appears to be no way to predict the suffixal vowel in these cases, although the recurrent association of $-n$ in words that are generally longer than two syllables with an attributive meaning strongly suggests that these also contain a fossilized attributive suffix. A still smaller set of similar words that end with -Vn are reduplications that normally would end with the consonant that precedes the final -Vn but which also contain what appears to be a fossilized attributive suffix: ayoayon 'yellow', paupaun 'light in weight', paxepaxen 'dry; to dry up', pilupilun 'spotted, as fur, feathers, or animal skin', potopoton 'fat, corpulent, obese', sawisawin 'smooth, level, straight', weluwelun 'long, tall', and xauxauan 'far'.

Although most instances of this affix in my fieldnotes are fossilized, or at least not identifiable by contrast due to my limited grammatical data, Wozna and Wilson (2005:29) provide many more examples of alternations which show clearly that most Seimat adjectives contain a suffix that ends with $-n$, and this can be supplemented by comparative evidence, as in POC *ayo 'turmeric', *ayo-ayo-ana 'yellow' > Lenkau ayo-an, Arop yaŋo-yo-ana 'yellow' (Blust and Trussel 2020). In my own data attributive words with $-n$ are found in citation forms, but the
suffix is absent in phrasal context, as with the citation form polun 'black'next to ko-kol e polu $i$ hat (small $e$ black $i$ stone) 'a small black stone'.
1.3.9. Transitives. Another affix that is productive in Seimat, although it may be fossilized in many forms, is the reflex of what Pawley (1973:120ff) called the 'close transitive' suffix *-i. Recorded cases which show it by contrast in my data are 1. an 'food' : an-i 'to chew', 2. hox 'canoe paddle': hoxe-i 'to paddle a canoe', 3. nat 'knot (Tok Pisin)' : nat-i 'to tie a knot', 4. salek 'cooking pot' : salek-i 'to boil in a cooking pot', 5. sayasay 'fork of a branch; twin': saya-i 'to split', 6. sa-sawit 'needle' : sawit-i 'to sew', 7. sus 'female breast' : susu-i 'to nurse', 8. tele-tel 'to be killing' : tele-i 'to kill something', and (with apparent deletion of the last stem vowel) 9. holaha 'to open, as a flower' : holah-i 'to open anything folded, as clothing, or a mat'.

Wozna and Wilson (2005:42) describe "eight allomorphs" of a transitive suffix in Seimat, which they arrange in "four groupings, with the last one a residual category." These are 1) verbs taking the suffix -eni, as in hoy 'to hear, listen' : hoy-eni 'to listen to', 2. verbs taking the suffix -(V)ini or -ni, as in mal 'to laugh' : mal-ini 'to laugh at', 3) verbs taking the suffix -(V)i, as in han 'to climb' : han-ei 'to climb (tr.)', 4) verbs taking the suffix -ane, -e, -o or -omi, as in kak 'to speak' : kak-ane 'to speak to', hil 'to fight' : hil-e 'to fight (tr.)', hamey 'to make a noise' : hamey-o 'to disturb by making a noise', or tan 'to appear' : tan-omi 'to make, create'.

They add (2005:43) "There is also a group of transitive verbs that do not have intransitive counterparts. They do not show specific morphology, though the majority of them end in $i$." In this group they mention eighteen examples, of which atai 'to build', kahui 'to buy', and sulini 'to push' are representative. My more limited grammatical data contains only two examples of -eni defined by contrast (ти-типа 'to hide (intr.)' vs. mun-eni 'to hide (trans.)', and tohẽa 'turn the head' vs. tohẽ-ni (< tohẽ-eni) 'turn the body'), as well as three possible examples in akekeni (= akaken-i or akek-eni?) 'to hold in the hand', pileheni (= pilehen-i or pileh-eni?) 'to twist, as fibers in making rope', and waheni (= wahen-i or wah-eni?) 'to want, desire something'. By contrast, I found extensive examples of $-i$. Where an unambiguous analysis is possible, as in 1-9 above, this final vowel almost certainly reflects POC *-i 'close transitive suffix'. For the others, the citation forms of semantically transitive verbs in my fieldnotes nearly always contain an apparent transitive suffix $-i$, which may or may not be fossilized, depending on whether the base also occurs alone or in other combinations (as with tele-tel 'to be killing' : tele-i 'to kill something'). Table 1.11 gives some indication of how pervasive this pattern is (although a morpheme boundary was assigned to forms in Table 11.0 only where alternations were attested, I have adopted a more liberal approach with -i, since since many of these words may occur in other forms that lack the transitive suffix):

Table 1.11: Seimat evidence for fossilized ${ }^{-}$-i 'close transitive suffix'
akeken-i 'to hold s.t.'
alikomen-i 'to bend s.t. soft, as a mat'
alom-i 'to bail s.t. out'
aso-i 'to sniff, smell s.t.'
atalah-i 'to bite s.t.'
aum-i 'to embrace s.o.'
otoh-i 'to break, as a stick'
pakat-i 'to stick, adhere to s.t.'
pilehen-i 'to twist together, as fibers'
pula-i 'to repair s.t.'
se-i 'to divide s.t.'
sein-i 'to plant s.t.'

```
ax-i 'to feed s.o.'
axa-i 'to whet, sharpen s.t.'
axut-i 'to scratch an itch'
etin-i 'to pull s.t.'
exein-i 'to rub in liniment'
han-i 'to give s.t.'
hayain-i 'to sell s.t.'
hasa-i 'to string s.t., as fish'
hẽ-i 'to open s.t.'
hit-i 'to cook s.t. in an earth oven'
hual-i 'to help s.o.'
hunũ-ĩ 'to squeeze s.t.'
itih-i 'to caulk s.t.'
kah-i 'to carry a person on the back'
kahit-i 'to follow s.o. or s.t.'
kahu-i 'to buy s.t.'
kame-i 'to ask a question'
keit-i 'to close s.t.'
kot-i 'to fell trees'
lapitin-i 'to pinch s.o. or s.t.'
laut-i 'to lift s.t.'
lio-i 'to throw s.t. away; to lose'
lu-i 'to burn s.t.'
lum-i 'to roll s.t. up'
naket-i 'to lick s.t.'
namihin-i 'to taste, try s.t.'
namilo-i 'to think about s.t.'
nono-i 'to collect, as firewood'
nuh-i 'to wash s.t.'
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sim-i 'to roast fish or meat in leaves'
sohut-i 'to weed a garden'
suisuin-i 'to bark at s.o.'
sulin-i 'to push s.t.'
tahĩw-i 'to dig'
tahun-i 'to smoke food'
ta-i-1 'to draw, write s.t.'
ta-i-2 'to husk coconuts'
talom-i 'to make or build s.t.'
tapah-ĩ 'to slap s.o. or s.t.'
tapuh-ĩ 'to stab s.o. or s.t.'
taputu-i 'to hit, punch s.o.'
tasim-i 'to sharpen s.t.'
tejen-i 'to catch s.t.'
tih-ĩ 'to pour s.t. out'
tihin-i 'to bury s.o. or s.t.
tilo-i 'to hail, call to s.o.'
tohen-i 'to turn the body'
to-i 'to throw s.t.'
tolom-i 'to swallow s.t.'
uh-i 'to blow on the fire'
uluh-i 'to shave s.t.'
ulut-i 'to peel yams'
upat-i 'to untie'
utun-i 'to fetch water'
uxan-i 'to load cargo'
wahen-i 'to want s.t.'
xa-i 'to hit with a stick, thrash'
xiot-i 'to tie by wrapping around'

Since only a small number of these proposed transitive suffixes can be identified by known paradigmatic contrasts, it is possible that in some cases the $-i$ is part of the base. This is most likely in disyllables, and becomes less likely as the word becomes longer. In one case, the Tok Pisin loanword parai 'to fry', the final vowel is clearly a phonological adaptation in borrowing from English, and cannot be considered a marker of transitivity.
1.3.10. Imperatives. I recorded examples of both positive and negative imperatives (vetatives) in sentences such as 45-50):

| 45) | tu-wa <br> stand-ALL |  | 'Stand up!' |
| :--- | :--- | :--- | :--- |
| $46)$ | kum | tu-tu <br> stand-PROG | 'Don't keep standing!' |
|  | VET |  |  |
| $47)$ | an-i-wa <br> eat-TR-ALL | hula <br> taro | 'Eat the taro!' |


| 48) | kum <br> VET | ani-ani <br> eat-PROG | hula <br> taro |
| :--- | :--- | :--- | :--- |
| 49) | paxa-i-wa <br> see-TR-ALL | i <br> 50 $)$ | nat-i-wa <br> knot-TR-ALL |

However, my data on imperatives is very limited, and the reader is referred to Wozna and Wilson (2005:76-77) for a more complete description. Wozna and Wilson state that the positive imperative is marked on the verb with the venitive suffix (V)-ma, as in ke-ma 'Pass it (to me)!', or with the allative suffix -(V)wa, as in ke-wa 'Pass it (to him, etc.)'. Following a verb that ends with a rounded vowel, as to 'to sit', or $t u$ 'to stand', they write the allative suffix as $-a$. I write -wa in both environments, since phonetically there is no difference in the two cases, and hence there is no true allomorphy.

It is possible that some verbs ending with -wa that I have given as base morphemes in the vocabulary are morphologically complex, since they were recorded only as citation forms, as with kahuiwa 'to retaliate, do in return, take revenge' or kaxiwa 'to inform, give the news'.
1.3.11. Tense/aspect. In the limited grammatical data that I collected two tense/aspect distinctions stand out clearly. The first of these is a progressive aspect marked by what was originally full reduplication that was historically reduced by loss of the final vowel. The second is a past tense or perfective aspect marked by the suffix -wen. These are illustrated together in the intransitive sentences 51-54), and separately for -wen in sentences 55) and 56):

| 51) | 1 | mali-mal <br> laugh-PROG | : | i | mali-wen 'S/he is laughing/laughed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3SG |  |  | 3SG | laugh-PAS |  |
| 52) | i | manu-man <br> drift-PROG | : | i | manu-wen 'It is drifting/drifted' drift-PAST/PRF |  |
|  | 3SG |  |  | 3SG |  |  |
| 53) | 1 | mutu-mut vomit-PROG | : | 1 | mutu-wen ' $\mathrm{S} / \mathrm{he}$ is vomiting/vomited' vomit-PAST/PRF |  |
|  | 3SG |  |  | 3SG |  |  |
| 54) | i | tani-tan <br> cry-PROG | : | i | tani-wen 'S/he is crying/cried' cry-PAST/PRF |  |
|  | 3SG |  |  | 3SG |  |  |
| 55) | ya | mamata-wen |  |  |  |  |
|  | 1SG | fear-PAST/PRF afraid' |  |  |  |  |
|  | 'I wa |  |  |  |  |  |
| 56) | ya | matihũ-wen |  | ti-letu |  |  |
|  | 1SG | sleep- PAST/PRF |  | PREP-morning |  |  |
|  | 'I slep | this morning |  |  |  |  |

It is clear that the past/perfective morpheme -wen can appear after a transitive suffix -i, as in sentences 58-60):

| ya $\quad$ unu-un | kan i | up |  |
| :--- | :--- | :--- | :--- |
| 1SG drink-PROG | water | GEN | coconut |
| 'I am drinking coconut water' |  |  |  |


| ya | unum-i-wen | kan | i | up | tihah |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1SG | drink-TR-PAST/PRF | water | GEN | coconut | yesterday |
| 'I drank coconut water yesterday' |  |  |  |  |  |

59) John taha-i-wen i

John cut-TR-PAST/PRF 3SG
'John cut himself by accident (as while shaving)'
60) John kot-i-wen i

John cut-TR-PAST/PRF 3SG
'John cut himself deliberately (as with a knife)'.
Wozna and Wilson (2005:45-48) call these 'imperfective aspect' and 'perfective aspect' respectively, and note that the suffix is -wen before non-round vowels and -en before round vowels. As with the allative suffix -wa, this is entirely predictable from the environment, and I therefore write invariant -wen, since that is its unambiguous shape following other vowels. They also make the interesting observation with respect to reduplication for marking aspect that "Some roots show different patterns depending on the transitivity of the formation," and they illustrate this with examples such as paku-pak 'singing (intr.)' vs. pa-pak-ui 'singing (trans.)'.

I recorded a similar contrast between these two reduplication patterns, but with a different grammatical function, namely simple transitive action vs. reciprocal action, as shown in sentences 61 and 62):

| 61) | i | pa-paxa-i | ya | 'S/he is staring at me' (cp. sentence 4) |
| :--- | :--- | :--- | :--- | :--- |
|  | 3SG | PROG-see-TR | 1SG |  |
| 62) |  |  |  |  |
|  | lalu | he | paxa-pax | 'They are staring at each other' |
|  | 3DL | RECIP | look-PROG |  |

Other examples of CV- reduplication to mark progressive verbs are found in my fieldnotes, but these were not recorded in sentences and so provide no information about function: halok 'to play; to dance' : ha-halok 'to be playing, to be dancing', han-i 'to give' : ha-han-i 'to be giving', muna 'to hide' : mu-muna 'to hide oneself', nahi 'to work' : na-nahi 'to be working', yoy 'to fly' : yo-yoy 'to be flying'. The single pair etin-i 'to pull, as on a rope' : etitin-i 'to be pulling, as on a rope' shows a pattern of what appears to be infixal reduplication for which there are no parallels in my data, although Wozna and Wilson (2005:8) report this as one of four types of reduplication in Seimat, and they illustrate it with apeseni 'to prepare' : a-pe-pes-eni 'preparing'. If this word contains the suffix -eni, as their morpheme analysis implies, then the reduplication
pattern it exemplifies could be identical to the pattern of final syllable reduplication that they illustrate with aile 'to do' : aile-le 'doing', since consonant clusters are disallowed, and apes-eni > a-pes-pes-eni would automatically reduce to the attested form. Given the same assumptions for etin- $i$ and etitin- $i$, all examples of apparent infixal reduplication may, in fact, be final syllable reduplication and reduction of the resulting medial consonant cluster.

I recorded a few sentences (or sentence templates, varying by subject pronoun) with a future construction, as seen in 63-67):

| ya po an-i | hula | letu |
| :--- | :--- | :--- | :--- |
| 1SG FUT eat-TR | taro | tomorrow |
| 'I will eat taro tomorrow' |  |  |


| ya | po | unum-i | kan | i | up | letu |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1SG | FUT | drink-TR | water | GEN | coconut | tomorrow |

'I will drink the coconut water tomorrow.'
65)

| ya | po | paxa-i | John | letu |
| :--- | :--- | :--- | :--- | :--- |
| 1SG | FUT | see-TR | John | tomorrow |

'I will see John tomorrow’
66)

| kako | po | lay | letu |
| :--- | :--- | :--- | :--- |
| 1PL.IN | FUT | sail | tomorrow |
| 'We will go |  |  |  |


| i | po | kiliwaw-ma | Manus | letu |
| :--- | :--- | :--- | :--- | :--- |
| 3SG | FUT | travel-VEN | Manus | tomorrow |
| 'S/he will come from Manus tomorrow' |  |  |  |  |

Sentence 63) was also recorded in the same form for other persons and numbers (o po an-i hula letu, i po an-i hula letu, la-lu po an-i hula letu, etc.). However, with a first-person singular subject it was also recorded as:

| ani-an | ya | po | ani | hula | letu |
| :--- | :--- | :--- | :--- | :--- | :--- |
| eat-PROG | 1SG | FUT | eat-TR taro | tomorrow |  |
| 'I will eat taro tomorrow' |  |  |  |  |  |

It is unclear why this construction requires the verb to appear in both progressive and simple transitive forms. To contrast it with the structurally different sentence 63), sentence 68) should perhaps be glossed 'I will be eating taro tomorrow'. This may be an error, but it is supported by the following past/perfective sentences:
69)

| ani-an | ya | an-i-wen | hula |  | tihah |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| eat-PROG | 1SG | eat-TR-PAST/PRF |  | taro |  | yesterday |
| 'I ate taro yesterday' |  |  |  |  |  |  |

$\left.\begin{array}{lllllll}\text { 70) } & \text { o an-i-wen } & \text { hula } & & \text { tihah } & \\ \text { 2SG eat-TR-PAST/PRF } \\ \text { 'You ate taro yesterday' }\end{array}\right)$

Why only first person singular actors require the verb to appear in two forms in these examples is unclear, and it remains to be seen what semantic distinction might exist between aji-ay and $a n-i$. While ani-an was recorded only as a verb, the base an is a noun ('food'), and becomes a verb only under affixation. Wozna and Wilson (2005:18) include these as a pair in a section on 'Derived nouns', claiming that an comes from $a y$ by zero derivation, but for all other examples that they give the verb and noun are phonemically identical, or differ only in reduplication. Finally, note that in a sentence with a conjoined subject, as 'John and I will go to Manus tomorrow' (sentence 12), for unknown reasons the future marker po is omitted.

Wozna and Wilson (2005:53) describe Seimat po as an "irrealis particle", but they provide no evidence (as from its use in conditionals, counterfactuals, imperatives and the like) that it is anything more than a future marker, although they do make the interesting observation that it is used for indefinite futures in contrast to those about which there is greater certainty.

In addition to po I recorded two sentences with ape, which I glossed 'will' (future), but which Wozna and Wilson (2005:83) helpfully gloss 'and then', since it appears to link clauses in which one action is a consequence of another that precedes it:
tehot $\quad$ ah ape $\quad$ i

one fire and.then $\quad 3 \mathrm{SG}$$\quad$| axu |
| :--- |
| 'A fire will (produce) smoke' |

73) 

| tehot ah pate | ape | axu-an |
| :--- | :--- | :--- |
| one fire really | and then | smoky |
| 'A fire will be really smoky' |  |  |

I was told that axu-an could not be used in sentence 72), where $a x u$ apparently functions as a verb despite its usual sense as a noun.
1.3.12. Miscellaneous. As already seen in the preceding examples, word order in Seimat is SVO. In addition to the foregoing I have a scattering of sentences that illustrate other features of grammar. Here is a representative sample:
74) paha-k ya ay hula 'I want to eat taro'

| 75) | paha-m <br> want-2SG | $\begin{aligned} & \mathrm{o} \\ & 2 \mathrm{SG} \end{aligned}$ | ay eat | hula <br> taro | 'You want to eat taro' |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 76) | paha-n | i | an | hula | 'S/he wants to eat taro' |
|  | want-3SG | 3SG | eat | taro |  |
| 77) | paha-lalu | $\begin{aligned} & \text { an-i-wa } \\ & \text { eat-TR-ALL } \end{aligned}$ |  | hula | 'The two of them want to eat taro' |
|  | want -3DL |  |  | taro |  |

Again, the distributional properties of $a \eta$ and $a n-i$ are unclear. However, perhaps the most notable feature of sentences 74-77) is the double marking of the subject by a free pronoun and a preceding co-referential suffix on the auxiliary verb which is homophonous with the possessive pronouns. Alternatively, one might argue that paha is a possessed noun, hence 'My desire (is that) I eat taro', etc. This analysis would help to resolve the issue raised by Wozna and Wilson (2005:35), who hold that "The verb namiloi 'to think about' is irregularly related to the noun namilo 'thinking, thought', while the bound root paha- 'want' is exceptional in that it has no verbal counterpart." As for namilo-i this appears to be a straightforward transitive verb with the suffix $-i$, and if paha is a noun meaning 'desire' or 'wish' its possessive morphology is regular.

Two sentences were recorded with the instrumental preposition ani 'with', as follows:
78) John xa-i to-k sinen ani pata

John hit-TR one-CL dog with stick
'John hit a dog with a stick'
79) lalu hile-hil ani pata

3DL hit-PROG with stick
'They are fighting (hitting each other) with sticks'
Two sentences were recorded with reciprocal meanings, but they differ in structure:
80

| lalu | ta | putu-put |
| :--- | :--- | :--- |
| 3DL | RECP? | punch-PROG |

'They are punching each other'
81) lalu he paxa-pax

3DL RECP? look-PROG
'They are staring at each other'
Although Seimat generally lacks an overt copula, the morpheme $e$ seems to have this function in several sentences, as 13), 19), 21-24), and the following, which has a construction seen in many AN languages, namely one in which an English sentence of the form subject + have + numeral + object instead has the form subject-possessor + copula (possibly zero) + numeral, where the numeral is the predicate of the clause.
82) natu-k e hũhũa
child-1SG COP two
'I have 2 children'

Strikingly, a copula was recorded in sentences that use a demonstrative pronoun, as 19a-c), but not in the corresponding sentences that use a locative adverb, as 20a-c).

Equally puzzling is the presence of a genitive marker in the locative expression 'in front of', but the absence of such a marker in 'behind', 'on top of' and the like (sentences 21-25).

### 1.4 LEXICON

The vocabulary that I collected for Seimat follows. Surface forms appear as lexical entries, but where alternations in possessive patterns or retained segments in the first iteration of reduplications show an unpredictable vowel an underlying representation that contains this vowel is given between slant lines within parentheses immediately after the surface form, as with pat (/patu/) : 'head', patu-k, patu-m, patu-n. Where a base morpheme was recorded only in a suffixed form an abstract underlying representation is given without the expected surface form, as with /ae/ 'leg, foot' (no free form $a$ was recorded). Vowel nasality is ignored for purposes of alphabetization. $(\mathrm{TP})=$ Tok Pisin loanword.

## SEIMAT-ENGLISH VOCABULARY

/a/

1. /ae/ : leg, foot, ae-k, ae-m, ae-n
2. ah : fire
3. ahay : west; west wind
4. ahe : bait? (cf. po-2)
5. ahi : long variety of Malay Apple: Syzygium gomata
6. ahitake : under, beneath
7. ahoah : blowing of the wind
8. ailan : hard, as stone
9. aile : to do; to make or build something
10. aita : who (in questions)
11. akah : rain
12. akaik :child (general term)
13. akak : armpit, akak au-k, akak au-m, akak au-n
14. akeken-i : to hold something in the hand
15. akik (/akiki/) : kinsman, relative, akiki-k, akiki-m, akiki-n
16. akilek: a hiccough, to hiccough
17. akimatu: to feel dizzy; to faint
18. al-1 : a thick-bodied barracuda that reaches two to 2.5 meters in length
19. al-2 (/ali/) : liver, ali-k, ali-m, ali-n
20. al-3: sun
al loloen : sunset (sun descending)
al sasasale : dawn (sun about to rise)
021.al-4: what?
axa-m al 'What is your name?'
21. alal : bottom-feeding fish, the halibut or sole
22. ali: a brownish grouper with black spots that grows to about 180 centimeters in length
23. alia : to return to where one started
alia hani xux : to return home ('go back to place')
alia-wen : returned, came back
i moih alia-wen ' $\mathrm{S} / \mathrm{he}$ is still alive' ( $=$ ' $\mathrm{S} /$ he has come back to life')
24. alikomen-i $:$ to bend something soft, as a mat
25. alimay: mangrove crab
26. aloha : afternoon from roughly 3 to 6 PM
27. alom- $i$ : to bail out, remove water from
alom-i wa : to bail out a canoe
28. amatu : a large fish, probably double-headed parrotfish
29. amili : 1DL excl. free pronoun
30. amite : 1PL excl. free pronoun
31. an : food
an-i : to chew; to eat
an-i tuep : to chew betel
32. ana- : marker of edible possession
33. anel (/anelo/) : palm of the hand, anelo- $k$, anelo- $m$, anelo- $n$
34. anetalam : whale
35. ani : with (instrumental)
36. anilayu : jellyfish (probably = /an i layu/ 'food of the layu grouper')
37. anuh (/anuhu/) : saliva (usually with kan 'water')
kan $i$ anuhu-k: my saliva, etc.
38. anun: a large land crab, coconut crab
39. $a \eta$ : to eat
$a \eta i-a \eta$ : to be eating
40. ayaw : kind of seagull with white chest and black back and head
41. aniamat : brave, intrepid, courageous
42. ayian : sharp, of a point or blade
43. ayiha : east wind
44. ayoayon : yellow
45. $a p$ : vine used to make a tube for blowing a liquid substance on the hair to kill lice
46. apah : fishing pole
47. ape : and then (cf. mat-2)
48. apein : enough; satiated after eating
49. api : sago palm
50. apuha : to assemble, as people for a meeting
51. apuhin-i : to collect, as coconuts
52. apuŋ : (gloss unclear; cf. nol)
53. asekun : crippled, lame
54. aso- $i$ : to sniff, smell something by sniffing
55. at-1 : kind of large tuna, up to two meters or more in length, probably bonito
56. at-2 (/ate/) : heart, ate-k, ate-m, ate-n
57. atalah-i : to bite
58. atol-1 (/atolu/) : brain; fontanelle atolu-k, atolu-m, atolu-n
atol i pat: brain, atol i patu-k, atol i patu-m, atol i patu-n ('egg of the head'?)
NOTE: atol i patu-n is said to be preferred to atolu-n for 'his/her brain', probably since atolu-n could also mean 'its egg'.
59. atol-2 (/atolu/) : egg (of bird, reptile, louse, etc.), atolu-n: its egg
atol i manexux : egg of a bird
atol i mom: egg of a chicken
60. au- : possessive classifier
61. aum-i: to embrace someone
62. aupol: wind (generic)
63. $a w_{-1}$ : (gloss uncertain; coast?)
aw lokon : bay (= 'curved $a w$ ')
64. aw-2 : milkfish? (given as response to TP karua ('mullet'), but probably milkfish
65. $a w_{-3}$ (/awa/) : mouth, awa-k, awa-m, awa-n
aw e iy (/awa i in/): door opening ('mouth of house')
aw e sal (/awa i sal/): path, road ('mouth of road')
66. awawak : to snore
67. awiwikok: humpbacked, hunched over
68. ax-1 (/axa/) : name, axa-k, axa-m, axa-n axa-m al 'What is your name?'
69. ax-2 $_{-2}$ /axe/) : chin, jaw, axe-k, axe-m, axe-n
70. ax-3 (/axu/) : gall bladder, axu-k, axu-m, axu-n
71. axaax : fire plow, stick twirled to start a fire, usually made from wood of kayah tree
72. axah : charcoal, black coal
73. axa-i : to whet, sharpen a blade
74. axan : gills (probably /axa-n/)
75. axax: fingernail, axax au-k, axax au-m, axax au-n
76. axaxawan : blue
77. $a x-i$ : to feed
78. axo (/axoa/) : spouse, axoa-k, axoa-m, axoa-n tap axoa-n : widow, widower ('no spouse')
79. axon : to copulate, have sexual intercourse
80. /axu/: smoke axu-an: smoky, dusty
81. axut-i : to scratch an itch
82. aya- : possessive classifier (cf. hanaw)
83. ayas : outrigger boom
/e/
84. e-1 : copula: be, exist
85. $e_{-2}$ : genitive marker after bases ending in $-a(a+i>e)$
aw e iy: door opening (=/awa i in/)
aw e sal : path, road (=/awa i sal/)
mat e in : front of house (=/mata i in/)
xam e wap : lime spatula (= /xama i wap/)
087: e: (gloss uncertain; cf. polu-n)
86. ek (/eke/) : vulva, vagina, eke-k, eke-m, eke-n
87. eŋ : to lie down
88. etin- $i$ : to pull, as on a rope
etitin- $i$ : to be pulling, as on a rope
89. ewiewiwa : to recover from an illness
90. exein- $i$ : to rub in liniment
/h/
91. -ha $a_{-1}$ : extended plural marker with pronouns
92. $h a_{-2}$ : kind of ironwood tree with red wood, used to make pins to join canoe planks
93. $h a_{-3}$ : punting pole
94. $h a_{-4}$ : reddish-brown sardine, smaller than the tanih
95. ha-s: to wake up (return to consciousness?)
96. hah : to rise, of the moon; moonrise
97. hahalin : taboo, forbidden
98. hahiola : the day before yesterday
99. hakatu : to shoot, to fire a gun
100. hakeakea: (gloss unclear; cf. kau; possibly ha-keakea)
101. hakokol: slow, as in actions
102. haliay : mast for a canoe sail
103. halok: to play; to dance
ha-halok: to be playing, to be dancing
104. han : to climb
105. hanaw : breath; to breathe, rest, take a break, hanaw aya-k, hanaw aya-m, hanaw aya-n
106. han-i : to give
ha-han-i: to be giving
han-i wa 'Give it!'
107. hani : to (directional)
108. haniaumay : a unicorn fish similar to the uliul, but with a shorter projection from its head
109. hanoano : panting, short of breath
110. hayain-i : to sell
111. hayga : anchor (TP)
112. hapik- $i$ : to shoot an arrow
113. hapu : big, of people
114. hasa-i : to string, as fish
115. hat: stone
116. hatahat : shelf above the hearth for drying fish, etc. (higher than heihay)
117. hatanoku : to break, as a stick (possibly /ha-tanoku/)
118. hatauh : fast-flying bird, the frigate bird
119. hatesol: all
120. hatu : to plait, as mat or basket
121. hatuhat: kind of four-cornered fish
122. haun-1 : clean
123. haun-2: new

NOTE: Probably identical to haun-1.
126. hayup : south wind
127. he : reciprocal marker
128. hehin : female; woman
129. hẽ-i 'to open s.t.'
130. heihay : shelf over the hearth used for storing firewood
131. heta : manta ray, the largest type of stingray, which may reach four meters across
132. hẽxipat : comb
133. -hĩ: (gloss uncertain; cf. $t u-1$ )
134. /hia/ : (said not to exist as a free morpheme)
ha-hia : to heat, as food
135. hĩena : to be ashamed
136. hilehil : to fight (of people, as in war)
137. hinalo: four
138. hita : a common shore tree, Calophyllum inophyllum
139. hit-i: to cook in an earth oven
140. hitol : hungry
141. ho : a tree like the mangrove, with sweet, edible fruit that is poisonous if not treated properly before eating
142. hõ : mole, skin blemish
143. hok: reef
144. hõka-i : to throw a spear
145. holaha: to open, as a flower
holah- $i$ : to open anything that is folded, as clothing, or a mat
146. holo : trivet, three stones used to hold cooking pot; rollers for beaching a canoe
147. hon : sea turtle (generic)
hon wanen ('true sea turtle') probably the green turtle: Chelonia mydas hon masay : hawksbill turtle
148. hoy : cover?
hoy in : roof of a house
149. hõ (/hõyo/) : to hear, listen; news ha-hõŋo-hõŋ : messenger, herald hõy- $i$ : to listen to hõyo-hõy : to be hearing, listening to
150. hosa : shadow, reflection, spirit of a dead man, hosa-uk, hosa-um, hosa-un hosaun : ancestral spirit
151. hosan : butterfly
152. hot : kind of stingray similar to heta, but only about 120 centimeters across
153. hox (/hoxe/) : canoe paddle
hoxe-i : to paddle a canoe
154. -hu : formative in numerals 'one', 'two', and 'three'
155. hua-1 : crocodile
156. hua-2 : fruit, hua-n
hua i pata: fruit of a tree
hua i up : coconut
157. hual- $i$ : to help someone
158. huhan : full, of a container
159. hühüka : wooden pins for joining planks or making a fork for the attachment of the outrigger (made from the wood of the ha tree)
160. hula : taro, Colocasia esculenta
161. hulihul: wave in the open sea, sea swell
162. hulo: swollen
163. hunaya- $i$ : to cook
164. hunи-i: to squeeze, as a fruit to get the juice
165. hũõ: combination form for 'two' (cf. panim)
hũõ-hu: two (in serial counting)
166. huohu : breaking of wave (as in surf)
maw huohu: surf, waves crashing on shore
167. hut: shore tree with four-cornered fruit that is poisonous: Barringtonia asiatica
168. hũtuan : beginning, origin
169. hux: island
hux la-lap : a big island
/i/
170. $i_{-1}$ : genitive marker, of
kan i pul : tears ('water of eyes')
pul i xixi : callus ('eye of fish')
tis $i$ ul : breadfruit sap ('sap of breadfruit')
tis i up : coconut cream ('cream of coconut')
171. $i_{-2}: 3$ SG subject/object, he/she
172. $i_{-3}$ : (gloss uncertain; cf. polu-n, or sentence 26)
173. ia : where (in questions)
174. ie : this; here
175. ih: exclamation of disapproval or disgust
176. ikoik-1 $_{-1}$ : coconut grater (probably $=$ shell of following)
177. ikoik-2 : mussel sp.
178. ilam : deep sea, ocean
179. imat : first (probably connected with mata 'front, facing part')
180. inah : spear
181. in: house, shelter
iy i manexux : bird's nest ('house of bird')
182. ipoy : night
183. itih-i : to caulk, seal cracks (as in a boat)
/k/
184. $-k$ : 1SG possessor, my
185. $k a_{-1}$ : to drive fish into a fish corral
186. $k a_{-2}$ : leaf
ka i api : sago leaf thatch (for roof)
ka i lah: betel leaf
ka i xin : croton, dracaena
187. $k a_{-3}$ : red spiny starfish, probably Crown-of thorns starfish
188. kah : lionfish
189. kah-i : to carry a person on the back
190. kahit-i : to follow someone
191. kahu-i : to buy something
192. kahuiwa : to retaliate, do in return, take revenge
193. kaisalayaw (/kaisalayawa/) : buttocks, kaisalayawa-k, kaisalayawa-m, kaisalaŋawa-n
194. $k a k_{-1}$ : to say, tell, speak
$i$ ka-kak 'S/he is talking'
195. $k a k_{-2}$ : to surface, come up for air, as a whale or man
196. kaka : blood, kaka au-k, kaka u-m, kaka au-n
kaka-n 'red' (= 'color of blood')
197. kakan $_{-1}$ : comb of a fowl (probably $=/$ kaka-n/)
198. kakatop : fishnet float
199. /kakawi/
ha-kakawi : to bend, as an iron bar
kakawi-n: crooked
200. kalal : common sea grass
201. kalamaw : left hand, left side
202. kalixa : pregnant
203. kaloh : bailer in a canoe
204. kaluya : to capsize, of a boat
205. kaluta : to stray, get lost
206. kame- $i$ : to ask a question, inquire
207. kan: water, liquid
kan i pul: tears
kan i sus : breast milk
kan i tax : sea water, saltwater
208. kanakan : moss, algae
209. kanat : small yellow mullet with black spots on side; it reaches only 20 to 25 centimeters in length
210. kapapar : ginger (TP)
211. kapit : steering paddle, rudder of a canoe
212. katu: scar
213. kau : to carry
kau-ma : to bring
kau-wa: to take
kau hakeakea: to carry on a pole between two men
ka-kau : to gather, collect; to carry
ka-kau salo : to collect firewood; to carry firewood
214. kaup : rafter in a house
215. kaw (/kawã/) : face, forehead, kawã-k, kawã-m, kawã-n
216. kawa : a large puffer fish with small thorns on skin
217. kawakaw : bamboo
218. kawatan: heavy
219. kawiw: hermit crab
220. kax : starfish
221. kaxiwa: to inform, give the news
222. kaxuk: to sink, submerge, disappear under water
223. kayah : tree with wood used to make the traditional fireplow
224. ke : fruit bat, flying fox
225. keihat : hawk, eagle
226. keit-i: to close
227. kekean : hot, as food or the sun
228. kemak: (here?; cf. nahi-1)
229. kewak: place?
230. kexuk : kind of white bird that flies very high
231. kiekin: well-formed coconut with meat ready to eat
232. kikan : to bathe, take a bath
233. kilakilan : thick, as a plank
234. kilan : much, many
235. kiliwaw : to run; to travel
236. kin (/kine/) : garden, kine-k, kine-m, kine-n
237. kinaw (/kinawe/) : neck, kinawe-k, kinawe-m, kinawe-n
238. kinax : voice
239. kioki : kind of bird, the kingfisher
240. -ko : limited plural marker with pronouns
241. kohan : spoiled, rotten, of meat, fish, or vegetables
242. kohot: star
243. koki : cockatoo; green, the color of the small cockatoo (TP)
244. kol: small (cf. taya)
ko-kol : small
245. kola : to point at, indicate
246. koloh (/kolohe/) : tail fin, kolohe-n
247. konokon : prow and stern of a canoe
248. kosenan : quick, fast
249. kot-i : to cut something on purpose, as wood; to fell trees
250. kow : sea cucumber, sea squirt
251. kox : to cram things into an overfilled container
252. koxa : cuscus, opossum
253. koxak: kind of small seaweed, about 10 to 12 centimeters long, with curled brown leaves
254. ku (/kui/) : bone (other than fish bone), kui-k, kui-m, kui-n
kи i pop: rib ('bone of side'), kи i роро-k, kи i popo-m, kи i popo-n
255. kue : long (of time)
kue-wen : old (from earlier times)
256. kuhuh: thunder
257. kuhukuh : elephant ear taro: Alocasia macrorrhiza
258. kuku : post, pillar
kuku $i$ iŋ : housepost
259. kukunan : short in length or height
260. kum : negative imperative, vetative, don't!; can't, unable to kum to-to ien 'Don't sit down over there!' kum tu-tu 'Don't stand up!'
261. kun : kind of flat coconut leaf basket used to carry small things
262. kux : gray hair
/1/
263. la : what (in questions)
264. lah : areca palm
265. lahan: (gloss uncertain; cf. sentence 32)
266. lal : Trochus shell
267. lamin : tornado at sea, black funnel of wind, waterspout
268. lay-1 : housefly
269. lay-2 (/laya/) : to sail a canoe, go sailing laya-wen : went sailing laya-lay : sailing
270. layu : grouper, giant rock cod, an all-white fish that grows up to 180 centimeters in length
271. lap : ‘big' (cf. taךa)
la-lap: big, of things
272. lapitin- $i$ : to pinch
273. las : coral limestone
274. laut-i $:$ to lift something
275. leh (/leho/) : tongue, leho-k, leho-m, leho-n
276. leihok: shallow green sea in the lagoon
277. leili : inside
278. lekalek : nauseated, to feel like vomiting
279. lelen : dorsal fin
280. leneley : to fight, of animals
281. lep : kind of net worked by two men with sticks
282. letu: morning; tomorrow
ti-letu : this morning
283. -li: dual marker with pronouns
284. li: sail of a canoe
285. lialun : bad
286. lil : louse (both head louse and clothes louse)
287. liliew : fig tree, banyan
288. lio- $i$ : to throw something away; to lose (as possessions)
289. loh (/lohu/) : friend, companion, lohu-k, lohu-m, lohu-n
290. lok (/loku/) : knuckle, joint, node; loku-k, loku-m, loku-n
lok i ae- : knee, lok i ae-k, lok i ae-m, lok i ae-n
lok i min : knuckle of hand
loku-n : node in bamboo, sugarcane, etc.
291. lokon-1 : curved, as a shoreline
292. lokon-2: when (in questions)
293. lola : rollers for banking canoe (TP)
294. lolo : dirty
295. loloen : descending, setting, of sun or moon
296. loloma : crocodile
297. -lu: dual marker with pronouns
298. lu-i : to burn something
299. lul : torch, used at night
300. lum-i : to roll up something, as a mat
301. lut : tongs for picking up something hot
/m/
302. -m : 2SG possessor, your
303. $m a_{-1}$ : and
304. ma-2 : flying fish
305. -ma-3 : venitive suffix
306. maelu : thin, of materials
307. mahah : clam
mahah wanen : sand clam ('true clam')
308. mahaten : largest shark, growing up to between nine and twelve meters in length, probably whale shark
309. mahu : growth stage of coconut when it is about the size of a golf ball
310. makalokalon: bald
311. makan: ripe
312. makana: anus
313. makian: cold, of food, or the weather
314. mal (/mali/) : to laugh, smile
mali-mal : to be laughing, smiling
mali-wen : laughed, smiled
315. maloh: kind of reef clam
316. malun: cooked
317. mama: mother (vocative) mama nahi-ma 'Mother, come!'
318. mamahua : about to heal (of a wound)
319. mamalawin: cleared ground in village
320. mamana : a large unicorn fish, which grows to about 90 centimeters in length
321. mamanahan: wide
322. mamata : to fear, be afraid
323. mamatit : breaking of wave, as in surf maw mamatit : breaking wave
324. man-1 $_{-1}$ : banana
325. man-2 : a black and white spotted stingray
326. manaw : right hand, right side
327. manexux : bird
328. manukan : raw, uncooked
329. manuman : to drift on or be carried off by a current
330. тари (/mapua/) : drops of water; sweat, dew, maриа-k, тариа-m, тариа-n

тариа-n : sweaty, dewy
331. masay : (gloss uncertain; cf. hon)
332. masiap : rubbish, garbage
333. mat-1 (/mate/) : dead; calm, still (of the sea
$i$ mate-n 'S/he is dying'
i mate-wen 'S/he is dead'
kan i tax mate-n 'The sea is calm, deadly still'
334. mat-2 : tide
335. mata : front, facing part
mata-n: lid/cover ('eye’)
mate : front (= mata i)
336. mati : to sleep, be asleep
337. maun : sky; cloud
338. maunten : mountain (TP)
339. maw-1 : wave, breaker; cf. huohu, mamatit
340. maw-2 : a yawn, to yawn
341. max : a black fish about 45 centimeters long, with knife-like projection near tail, probably surgeonfish
342. maxayan: bad-tasting
343. maxix : small sardine with a large head and eyes that swims near the surface
344. maya-1: laplap, men's sarong
345. maya-2 : papaya
346. meil-i : to reach (a place) by moving
347. mey : story
348. metaok: a smallish all-white grouper that grows to about 60 to 75 centimeters in length
349. mimi : urine
mimi-mim : to urinate, be urinating
350. min (/mina/) : hand, mina-k, mina-m, mina-n
351. minuminun : thorn (= 'thorny'?)
352. moih : to live, be alive
moih-in: living, alive
353. moloan : painful
354. mom : chicken, domestic fowl
355. mon : dugout canoe without outrigger, used mostly by small boys
356. mos : to descend, as a ladder; to land, come ashore, as a boat
357. moxin: common shore tree with needles and small cones: Casuarina equisetifolia
358. muna : to hide

ти-типа : to hide oneself
па ти-типа 'I'm hiding'
mun-eni : to hide something'
ya mun-eni pen 'I'm hiding a pen'
359. mut : vomit, vomitus
mutumut : to vomit, be vomiting
/n/
360. -n : 3SG possessor, his/her
361. -na (gloss uncertain; cf. to-2)
362. nahi-1 : to walk, go
nahi tele-tel : to hunt, go hunting ('go killing')
nahi-kemak 'Come here!'
nahi-ma : to come; 'Come here!' (= 'walk here')
363. nahi-2 : to work
na-nahi : to be working
364. nake : why?; because
365. naket-i: to lick
366. nalat : stinging nettle: Laportea sp .
367. nam : mosquito
368. nameah : deep lagoon without a passage
369. namihin- $i$ : to taste, test, try something
370. namilo-i : to think about s.t.
371. nan : pus, purulent matter in wound
na-nan : pus, purulent matter in wound
nan e pul : sleep in eye (/nana i pul/ = 'pus of the eye')
372. nat-1 : child, offspring, natu-k, natu-m, natu-n
373. nat-2 : knot (TP)
nat- $i$ : to tie a knot
nat-i-wa 'Tie the knot!'
374. nat-3: latex-yielding tree with apple-like fruit, probably Palaquium spp.
375. naw : tall tree with yellow wood used to make canoes; obtained from floating logs in the sea
376. nawal : ember, glowing coal
377. naxun: wounded
mina-k naxun 'My hand is wounded'
378. nemaux: jungle, bush
379. niap : multi-pronged fish spear
380. nini : honeybee
381. ninin: to crawl on hands and knees
382. ninu : white cowrie, probably egg cowrie
383. nipew : kind of reddish-black bush crab
384. nis (/nisu/) : tooth, nisu-k, nisu-m, nisu-n
385. noh : stonefish
386. nono- $i$ : to collect, as firewood
i nono-i salo 'She is collecting firewood'
387. nu: to dive, submerge
388. nuan : low tide, ebb tide
389. nuh-i : to wash (clothes, dishes, hands, face)
390. nипи : to swim; to float
391. nипир : the largest kind of grouper, ranging from two to three meters in length
392. nus : small shellless squid
393. nuxan : lazy
/n/
394. ya: 1SG subject/object; I, me
395. yain: day
396. yayay: feces
397. yax (/yaxo/) : finger, yaxo-k, yaxo-m, yaxo-n
yax e mina-k : finger of my hand
398. yol : knife
yol apuy: axe or adze
yol pole : bush knife
399. yoŋ: to fly
ŋо-ŋоу : to be flying
/o/
400. $o$ : 2SG subject/object; you
401. oah : fog, mist
402. oh : unable to fit, as dog trying to wriggle through a hole, or man trying to put on a shirt that is too small
403. oha: shark (generic)
404. ohĩt: bait for fishing
405. ok : kind of narrow-leafed pandanus
406. ol-1 (/ola/) : grandfather/grandchild, ola-k, ola-m, ola-n
407. ol-2 (/ole/) : feather, ole-n
408. olawik : kind of white bird that flies low
409. omiomin : narrow, as a road
410. otoh-i : to break, as a stick
411. oxe : small tuna variety that grows to 45 to 60 centimeters in length
/p/
412. paha: desire, thing desired, paha-k, paha-m, paha-n
413. pahat : coconut husk; fibers
414. paheha: black sea bird with a straight beak, similar to paxak, but smaller
415. pahẽhin : a narrow-bodied grouper ranging from 90 to 140 centimeters in length
416. pahõa : grass, including kunai grass: Imperata cylindrica
417. pahon: the handle of an axe or adze
418. pak: to sing, song
paku-pak: to be singing
419. pakalat: gecko, house lizard
420. pakapak: shrimp
421. pakapakan : skin disease, fungus that leaves blotchy light patches on the skin, probably Tinea versicolor
422. pakat-i: to stick, adhere to something
423. pal : pigeon, dove (generic)
424. palawa : flower (TP)
425. palay : few
426. palepal : to float, be bobbing on the water
427. paliah : leeward side of an island, where the surf is calm
428. paloy (/paloya/) : ashes
paloy e ah : ashes of a fire (= /paloya i ah/)
429. panim : a group of five
te-panim : five
hũõ-panim : ten ('two groups of five')
430. payapay : moon, month
431. paon : sweet
432. pap : to swim
433. papa : father (vocative)
434. papahõi : direction?
435. papaw : oars for rowing a boat
436. papaxaxun: white
437. parai : to fry (TP)
438. pat (/patu/) : head, patu-k, patu-m, patu-n
439. pata : living tree, wood; log
pata mate-n dead wood
440. patahul: single-pronged fish spear
441. patanaw (/patanawa/) : chest (anat.), patanawa-k, patanawa-m, patanawa-n
442. pate : very, really (extreme quality of something)
443. patei : group of one hundred?
patei tel : 100
444. patiw : plank, board
445. patul : above, on top of
446. patuxaw : reddish-black bush crab similar to the mangrove crab
447. pau-n : wing, lateral fin of a fish
448. paun : half section of something?
te-paun : one half
449. paupaun : light in weight
450. pax : brace that runs along the top of the connecting sticks for an outrigger
451. paxa-i : to see, look at
pa-paxa-i : to be looking, staring at
452. paxak : large black sea bird with a straight beak
453. paxayon : to dream, talk in one's sleep
454. paxapax : small biting fly on beach, probably sandfly
455. paxepaxen : dry; to dry-up
456. paxi : ghost, spirit of the dead
457. pehe : branch
pehe pata (= pehe i pata?) : branch of a tree
458. pekeun : earth, ground, sand
459. pelaw : shell, cover (?)
pelaw i hon : turtle shell
460. peluh : tall tree with white wood used to make canoes
461. pepelen : cape, extreme point of an island
462. pepenahun : ocular cataract; dim vision
463. pepepe : to defecate
464. pes : to break wind, fart
465. peteta : sweet potato (TP)
466. pexopexo : blinking
ha-pexopexo 'to wink/blink'
467. pexuh : shore, beach
468. piakus : a green and yellow hummingbird
469. pilehen- $i$ : to twist or twine, as fibers or rope
470. pilipil : tiger shark
471. pilupilun : spotted, as the fur, feathers, or skin of an animal
472. pinole : to have a high-pitched voice
473. pisa : mangrove tree
474. po-1: future marker, later
475. po-2 : large carrying/storage basket, coconut-leaf basket
po $i$ ahe : a 5-6 foot long basket carried alongside a canoe to keep bait when fishing
476. pok: foam
477. pole : (gloss uncertain; cf. yol)
478. polu- : black
polu-n: black
ko-kol e polu i hat 'a small black stone'
479. pom: kind of green seaweed traditionally used to paint canoes a greenish-white hue
480. ponapon: swampy place
481. pop (/popo/) : side (of body; cf. ku), popo-k, popo-m, popo-n
482. potopoton: fat, corpulent, obese
$i$ potopoton ' $\mathrm{S} / \mathrm{he}$ is fat'
483. poun-1 : green coconut (meat not yet formed)
484. poun-2 : smell, odor
poun kohan : stench ('rotten smell')
poun lialun : stench ('bad smell')
485. pow : pig
486. puh : bubbles
487. puhĩsis : back of the head, puhĩsis au-k, puhĩsis au-m, puhĩsis au-n
488. puhũ (/puhũa/) : intestines, puhũa-k, puhũa-m, puhũa-n
489. puhũan : core of a tree, heartwood
490. puhup : behind, in back of
491. puke (/pukea/) : to spit; sputum, pukea-k, pukea-m, pukea-n puke-puk: to keep spitting, spit repeatedly
492. pul (/pula/) : eye, pula-k, pula-m, pula-n
pula $x a$ : blind
pul i xixi: callus (lit. 'fish eye')
493. pula-i : to mend, repair something
494. pulil: spider
in i pulil : spider web ('house of spider')
495. /pulohin/ : to say, tell
pulohin-i-wa 'Say it!'
496. pulu : a small to medium-size puffer fish with small thorns on skin
497. pun : kind of flat white fish that lives in deep water beyond the reef
498. puoul: termite, white ant
499. pир : edible reef fish with one large dorsal spine, and several smaller ones by the tail
500. puputa: false, lie
501. pusoan: tired, fatigued
502. put (/puto/) : navel, puto-k, puto-m, puto-n
503. /puta/ : to fall from a height
ha-puta : to drop, throw down
puta-put : falling from a height
puta-wen : having already fallen
504. puxих : clothing (modern)
/s/
505. sa : greenish fish with white belly and projecting lower jaw, similar to the sekun, but about twice the length, probably a type of needlefish
506. sahawa : sea urchin
507. sal : road, path (cf. $a w_{-1}$ )
508. salaimat : old, of people or animals
509. salan : correct, true
510. salek: clay cooking pot
salek-i $:$ to boil in a cooking pot
511. salili : to leave, depart salili-wen : left, departed
512. salo: wood
salo i ah : firewood ('wood of fire')
513. samen : pronged fish spear (general)
514. /saya/: bifurcation
saya-i: to split
sayasay: twin; fruit that is joined together (as fused bananas)
sayasaya- $n$ : fork of a branch; crotch; space between fingers
515. sapalikan : placenta, afterbirth
516. sapoxen : coconut inflorescence
517. sasasale : about to rise, of the sun or moon
518. sawisawin : smooth, level, straight
519. /sawit/ : needle; to sew
sa-sawit : needle
sawit-i : to sew
sawit-i-wa ‘Sew it!'
520. saxe : wall
saxe in : house wall (probably/saxa i in/)
521. se-i: to divide something
522. seilon : person, human being
seilon tel : twenty ('one person' = all digits)
523. sein- $i$ : to plant
524. seini : to jerk back, as when surprised; startled
525. sekun : green fish about 45 centimeters long, with a projecting lower jaw, probably needlefish
526. sil : sticks that run along the top and bottom of the sail, connecting them to the mast
527. silal : malevolent bush spirit with visible human-like body
528. silisil : kind of tuna with yellowish stripe on sides; it grows to 75 to 90 centimeters
529. sim- $i$ : to wrap fish or meat in leaves and put on the fire to roast
530. sinea : noose trap, snare trap
531. sinen: dog
532. sinu : kind of broad-leafed pandanus
533. sinilen : pandanus rain cape, traditional raincoat
534. siota : to capsize, go under water, of a boat
535. siwisiw : kind of black hummingbird
536. soh : to enter
537. sohõt : to appear
538. sohut-i : to weed a garden, pluck, pull out weeds
539. sok (/soke/) : body hair, soke-k, soke-m, soke-n
soke axe-k 'my beard' ('hair of my chin, jaw'; = soke i axe-k?)
soke mina-k 'my arm hair'
540. soleah : marlin, swordfish
541. solian: good
542. solisol : tidal wave, tsunami
543. somun : high tide
544. soso : small white-shelled reef clam
545. sousa : canoe platform
546. $s u$ : coconut flower spathe
547. suhusuh : conch, triton
548. suisuin- $i$ : to bark at s.o.
549. suiwãwãw : giant squid with shell
550. sulin- $i$ : to push something
su-sulin- $i$ : to be pushing something
551. suolew : a large mullet growing up to 180 centimeters in length, and running in large schools
552. sup : pearl oyster
553. supulan : taro sucker
554. sus (/susu/) : female breast, susu-k, susu-m, susu-n
susu-i : to suck at the breast, to nurse
555. sutu : deaf, mute
/t/
556. $t a$ : reciprocal marker
557. tah (/taha/) : belt; taha-k, taha-m, taha-n
558. taha-i : to cut something accidentally
559. tahatahan : tattoo
560. tahiw- $i$ : to dig (as in planting crops; not much used by young people in 1975)
561. tahulo : deep
tahulo-an : deep
562. tahun-i : to smoke food for preservation, as fish or meat
tahun-i xixi: to smoke fish
563. ta-i-1 : to draw, write
564. ta-i-2 : to husk coconuts
565. takah : to be born
566. tal : rope, string
567. talesi : to be wrong, in error
568. talil : a shore tree with edible nut: Terminalia catappa
569. taliop (/taliopa/) : cheek, taliopa-k, taliopa-m, taliopa-n
570. talo-1 : to send someone on an errand
571. talo-2: an invisible spirit thought to reside in big trees such as the banyan
572. talolo : thin, of people or animals, skinny
573. talom-i: to make or build something
574. taloyan : quick, fast
575. tam (/tama/) : father, tama-k, tama-m, tama-n
576. tanenan : calm, still, of water
kan i tax tanenan 'The sea is calm'
577. tanih : largest kind of sardine, Sardinella spp.
578. tanihinih: a fish, the Spanish mackerel
579. tay (/tani/) : to weep, cry
ha-tal-i : to make someone cry, force someone to tears
taŋi-taך: weeping, crying
580. taya: finger
taya lap : thumb ('big finger')
taya kol : little finger, pinky
581. taoh : sleeping mat
582. tap : no, not
583. tapah-ĩ: to slap
584. tapan : enough
585. tapeinan : last
586. tapo : finish
tapo-wen: finished
587. tapuh-ĩ : to stab
588. taputu- $i$ : to hit with the fist, punch
589. tas : a cough, to cough
590. tasim- $i$ : to sharpen bamboo, etc., cutting it to a fine point
591. tasutas : runny nasal mucus, snot
592. taun : windward side of an island, side where the sea breaks
593. tawisaean : morning star/evening star, Venus (also recorded as toisaean)
594. tax (/taxi/) : sea
kan i tax : saltwater
taxi-an : salty
595. taxiy (/taxiya/) : ear, taxiya-k, taxiya-m, taxiya-n
taxiy i paxi: mushroom ('ghost ear')
596. taxitaxia : mad, insane
597. taxix : to drown
598. te- : clitic form of 'one' (cf. panim)
te-hu: one (in serial counting, and in counting houses and possibly some other objects)
te-ka: one bunch
te-tea : this one(?)
599. -te : limited plural marker with pronouns
600. tehĩt (/tehĩto/) : back (anat.), tehĩto-k, tehĩto-m, tehĩto-n
601. tel-1 : one (in expressing the unity of higher numeral groups, as 'twenty' or 'hundred')
602. tel-2 : (/tele/) : kill
tele- $i$ : to kill something; to crush lice between the fingernails
tele-i-wa 'Kill it!'
tele-tel : to be killing
603. tenen- $i$ : to catch something
604. teta- : marker of emphatic possession
607. ti-1 : (gloss uncertain; this, referring to time?; cf. letu)
605. ti-2 : a yellow and white barbelled fish, about 30 centimeters long
606. ti-3 (/tia/) : abdomen, belly, tia-k, tia-m, tia-n
608. tihah : yesterday
609. tih-ĩ: to pour something out
610. tihin-i : to bury
611. tike : to catch (as fish)
612. tilo- $i$ : to hail, call to someone
613. tilokoan : dark
614. tin-1 (/tina/) : mother, tina-k, tina-m, tina-n
615. tin-2 (/tinu/) : body, tinu-k, tinu-m, tinu-n
616. tinun : feverish, sick with fever
617. tioi : to know things, be expert; to recognize
618. tioti : kind of barbelled fish that grows to 120 or 150 centimeters in length, probably goatfish
619. tis : viscous fluid (?)
tis i ul : breadfruit sap
tis $i$ up : coconut cream
620. tiw : sideboard in the mid-section of a canoe (midway between the prow and stern)
621. tiwãxa: giant black eel, said to be as large as a coconut tree
622. tixiya : to spill
623. to-1: ironwood tree: Intsia bijuga
624. to-2 : to sit down
ha-to-na: to make someone sit down
to-wa : 'Sit down' (imper.)
to-to : to be sitting, seated; to reside in a place
ya to-to Awin 'I live in Awin village'
625. -to : limited plural marker with pronouns
626. toan : village
627. tohẽa : to turn (the head)
628. tohen- $i$ : to turn (the whole body)
629. to- $i$ : to throw something
to-to- $i$ : to be throwing
to-i-wa ‘Throw it!' (imper.)
630. tola : north wind
631. tolom-i : to swallow
632. tolu : three (base form)
tolu-hu: three (in serial counting, counting houses, and possibly some other objects)
633. tone : place, location
tone hunaya-i an : hearth ('place cook food')
634. top : a tree with light wood used for fishnet floats; it is obtained from logs that wash ashore
635. tope: (gloss uncertain)
tope ae- : thigh, tope ae-k, tope ae-m, tope ae-n
636. topiw: sugarcane
637. toton: brace for the connecting sticks attaching the outrigger to the canoe
638. toun: convexly curved stretch of shoreline
639. tox : kind of grayish-black mud found on floating logs that can be hardened in the sun and used to sharpen knives
640. $t u_{-1}$ : to stand up
ha-tu-hí: to make someone stand up
tu-wa 'Stand up!' (imper.)
$t u-t u$ : to be standing
itu-tu ' $\mathrm{S} / \mathrm{he}$ is standing'
641. tu-2 (/tua/) : sister, tua-k, tua-m, tua-n
tua- hapu : older sister
tua- ko-kol : younger sister
642. tuep : areca nut, betel nut
pate tuep : areca palm (= pata i tuep)
643. tum : end, tip
tum i aw: lip, tum i awa-k, tum i awa-m, tum i awa-n
tum i sus: nipple of the breast
644. tumuku: dull, of a point or blade
645. tun : eel that reaches a meter or more in length, with red ear-like appendages
646. tuxe : to gut a fish
/u/
647. uh: lobster
648. uh-i : blow on the fire
649. uhõ (gloss unclear)
uhõ i kin: fallow land, garden left to replant later
650. $u k_{-1}$ (/uke/) : shell
uke-n : shell (of shellfish, coconut, etc)
uk $i$ wap : lime gourd
651. uk-2 (/uku/) : head hair, uku-k, uku-m, uku-n
652. ukal (/ukala/) : brother, ukala-k, ukala-m, ukala-n
ukala hapu 'older brother', ukala ko-kol 'younger brother'
ukal e tina- : 'mother's brother, uncle' (=/ukala i tina-/)
653. ll- $_{-1}$ : breadfruit
654. ul-2 : maggot, caterpillar
655. uli-1 : early
uli letu : morning
656. /uli/-2: skin, uli-k, uli-m, uli-n
uli pata : tree bark (= /uli i pata/)
uli pow : pig skin (=/uli i pow/)
uli tia- : abdomen, uli tia-k, uli tia-m, uli tia-n (= /uli i tia/)
uli tin : body, uli tinu-k my body, uli tinu-m, uli tinu-n (= /uli i tinu/)
657. uliul-1 : side boards at the front and back ends of a canoe
658. uliul_- : a unicorn fish with a long toxic projection --- grows to about 60 centimeters in length
659. uluh-i : to shave
660. ululuy (/ululuya/) : to rest the head; pillow, wooden headrest (made from top wood), ululuya-k, ululuŋa-m, ululuya-n
661. ulut-i : to peel yams
662. um : earth oven
663. $u n$ : to drink

ипи-ип: to be drinking
unита-k (unu-ma-k?) : my thing to drink
664. ипин : kind of large puffer fish with strong thorns on skin --- good to eat
665. uy (/uya/) : fish scales, uүa-n : its scales
666. иŋоиŋ : black ant
667. ир : coconut, ир au-k, ир аu-m, ир au-n (general possession), teta-k up : my coconut (not yours)
pate up: coconut tree (= /pata i up/)
up polun: dry coconut ('black coconut')
668. upat-i : to untie
669. upa-up : to flap the wings, of a bird about to fly
670. upen : casting net
671. upia : to search, seek; to delouse; to find
672. ирир : kind of stingray with blunt thorns running down the spine
673. usil : lightning
674. usuh : rat
675. ut (/uti/) : penis, uti-k, uti-m, uti-n
676. utuh-i : to fetch water, submerge a vessel to fill it with water
677. utuut : corner
678. uxa : to chew, as sugarcane; marker of foods to chew
679. uxan- $i$ : to load, as cargo on a boat
680. uxejan : itchy
681. uxi : dolphin
/w/
682. -wa-1: allative suffix
683. -w $a_{-2}$ : imperative suffix (sometimes indistinguishable from $-w a_{-1}$ )
hoyo-wa 'Listen!'
to-wa ien 'Sit down over there!'
684. wa-3: outrigger canoe, boat
685. wa-4: (/wao/) : spine, vertebral column, wao-k, wao-m, wao-n
686. wa-5 (/wao/) : vein, tendon, wao-k, wao-m, wao-n

NOTE: Possibly the same entry as wa-4.
687. wah: thick-bodied brown grouper which reaches a length of about a meter
688. /wahã/ : root, wahã-n
wah ẽ ka i lah: betel pepper (= /wahã i ka i lah/)
wah ẽ pahõa : root of sword grass (Imperata cylindrica)
wah e pata: taproot
689. /wahe/ : shoulder, wahe-k, wahe-m, wahe-n
690. wahen-i : to want, desire something
691. waiwaw : fishhook
692. wakiakin : soft
693. wako : small white grouper with a little blue on the back; grows to about 60 centimeters in length
694. wakot-i: to cut grass
695. waku (/wakue/) : seed; testicles, wakue-k, wakue-m, wakue-n
wakue-n: its seed; his testicles
waku i pata seed of a tree
696. wal : hole (in the ground)
697. walal : small white barbelled fish with black spots on skin
698. walut : kind of large dove with dark blue and green feathers
699. wãluwãl : boil, abscess
700. wanen : true, real, genuine
701. wayiyian : sour
702. wap : lime, calcium carbonate
703. wasol: channel, passage through the reef
704. wasuini : to blow the nose
705. wãt-1 : earthworm
706. wat-2 : monitor lizard, Varanus spp.
707. wãt-3: a sneeze, to sneeze
wãtu-wãt : to be sneezing (repeatedly)
708. watilan : rotten, crumbling, of wood
709. wauh : giant clam, Tridacna sp .
710. waun (/waunu/) : spider web, waunu-n
waun i pulil : spider web
711. wawan-1: hole (in a canoe)
712. wawan-2: man (male)
713. wax (/waxu/) : kind of small rattan or cane, waxu-k, waxu-m, waxu-n
714. waxa : kind of black wild fowl
715. waxexan : wet
716. wehioh : small white crab that runs very fast along sand, probably ghost crab
717. weiko : snake
718. weix (/weixu/) : nose, weixu-k, weixu--m, weixu-n
719. wekan : eel (generic)
wekan papaxaxun : kind of small white eel
720. wel : coconut oil (TP)
721. weli: always
weli ka-kak : talkative ('always talking')
722. weluwelun : long, tall
seilon weluwelun : a tall person
723. -wen : past/perfective marker
724. wetahĩ : to open the eyes wide
725. wexe : to count
726. wi (/wia//) : fat, grease, wia-k, wia-m, wia-n
727. wit : octopus
728. wowok: kind of parasitic plant on trees; it has a small green flower that later turns red
/x/
729. $x a$ : (gloss uncertain; cf. pul)
730. $x a-i$ : to hit with a stick, thrash
731. xam-1 (/xama/) : light, radiance
xam e al : shimmer, glare of sunlight on water (=/xama i al/)
732. xam-2 $^{2}$ : outrigger float
733. xam-3 (/xama/) : spatula?
xam e wap : lime spatula (= (xama i wap)
734. xayat: to get up from sleeping, to rise from bed
735. xaoh : hammerhead shark
736. xaok : heron (both white and black varieties)
737. xauy : small grayish-green crab that rides floating logs, and climbs on rocks on the beach
738. xauxauan: far
739. xaw : stone fish corral
740. xaxa : red tree ant
741. xaxe : (gloss unclear)
xaxe pul : eyebrow, xaxe pula-k, xaxe pula-m, xaxe pula-n
742. xayo : kind of thin-bodied barracuda
743. xewan : clear, as water
744. xexexele : growing, as plants
745. xin : (gloss uncertain; cf. $k a_{-2}$ )
746. xiot- $i$ : to bind, tie by wrapping around
747. xixi-1 : fish
748. xixi-2 (/xixio/) : muscle, flesh, xixio-k, xixio-m, xixio-n
749. xoh (/xohe/) : gums, xohe-k, xohe-m, xohe-n
750. xoixohin : near
751. xu: dugong
752. xun : soup, broth
753. хиие : kind of large greenish fish with a white belly; it chases small sardines
754. хихи : fat, obese

да хихи 'I am fat', o xuxu 'you are fat', $i$ xuxu 's/he is fat' 755. хихиіпа : steal; thief
/y/
756. yax (/yaxi/) : beginning to bud, of fruit on a plant yaxi-wen: having already borne fruit

### 1.4.1 English-Seimat Index



| bark (of tree) | : | uli pata |
| :---: | :---: | :---: |
| to bark at | : | suisuin-i |
| basket |  | kun, po |
| to bathe | : | kikan |
| bay | . | aw lokon |
| beach |  | pexuh |
| beard | : | soke axe- |
| because | : | nake |
| beginning | : | hũtuan |
| behind | : | puhuy |
| belly | : | tia- |
| belt | : | tah(a)- |
| to bend | : | alikomen-i, ha-kakawi |
| beneath | : | ahitake |
| betel nut | : | tuep |
| betel pepper | : | wahẽ ka i lah |
| bifurcation | : | saya |
| big (of people) | : | hapu |
| big (of things) | : | lalap |
| to bind | : | xiot-i |
| bird | : | manexux |
| bird sp. |  | anaw, hatauh, keihat, kexuk, kioki, koki (TP), olawik, paheha, pal, paxak, piakus, siwisiw, walut, waxa, xaok |
| to bite | : | atalah-i |
| black | : | polun |
| blind | : | pula xa |
| to blink | : | hapexopexo |
| blood | : | kaka- |
| to blow (wind) | : | ahoah |
| to blow (on fire) | : | uh-i |
| to blow the nose | : | wasuin-i |
| blue | : | axaxawan |
| board | : | patiw |
| body | : | (uli) tinu- |
| boil (sore) | : | wãluwãl |
| to boil | : | salek-i |
| bone | . | ku(i)- |
| boom of sail | : | sil |
| to be born | : | takah |
| brace (outrigger) | - | pax, toton |
| brain | : | atol(u) |
| branch | : | pehe |
| brave | : | aŋiamat |
| breadfruit | . | ul |




| dawn | al sasasale |
| :---: | :---: |
| day | yain |
| day before yesterday | hahiola |
| dead | mat |
| deaf | sutu |
| deep | tahulo |
| defecate | ререре |
| to delouse | upia |
| to descend (ladder) | mos |
| descending | loloen |
| to desire | wahen-i |
| dew | mapu(a)- |
| to die | mat |
| to dig | tahĩw-i |
| direction | papahõi? |
| dirty | lolo |
| to dive | nu |
| to divide | se-i |
| dizzy | akimatu |
| dog | sinen |
| dolphin | uxi |
| don't | kum |
| dove | pal |
| to draw | ta-i |
| to dream | paxayoy |
| to drift | manuman |
| to drink | un(u)- |
| to drive fish | ka |
| to drop | ha-puta |
| to drown | taxix |
| dry | paxepaxen |
| dugong | xu |
| dull (blade, point) | tumũku |
| dust | axu |
| ear | taxin(a)- |
| early | uli |
| earth | pekeun |
| earth oven | um |
| earthworm | wãt |
| east wind | ayiha |
| to eat | aŋ |
| egg | atol(u)- |
| elbow | lok i ae- |
| ember | nawal |
| to embrace | aum-i |
| emphatic possession | teta- |






| $\log$ |  | pata |
| :---: | :---: | :---: |
| long (things) |  | weluwelun |
| to look |  | paxa-i |
| to lose (something) |  | lio-i |
| lost (way) |  | kaluta |
| louse |  | lil |
| maggot |  | ul |
| to make |  | aile, talom-i |
| Malay apple |  | ahi |
| male/man |  | wawan |
| many | : | kilan |
| mast |  | haliay |
| mat (sleeping) |  | taoh |
| to mend |  | pula-i |
| messenger |  | ha- hõyo-hõy |
| milk (breast) |  | kan i sus |
| mist |  | oah |
| mole (on skin) |  | hõ |
| monitor lizard | : | wat |
| moon |  | payapay |
| morning |  | letu |
| mosquito |  | nam |
| moss | : | kanakan |
| mother |  | tina- |
| mother (vocative) |  | mama |
| mother's brother | : | ukal e tina- |
| mountain |  | maunten (TP) |
| mouth |  | aw(a)- |
| mud |  | tox |
| muscle | : | xixi(o)- |
| mushroom | : | taxin i paxi |
| mussel | : | ikoik |
| mute | : | sutu |
| name | : | ax(a)- |
| narrow | : | omiomin |
| nauseated | : | lekalek |
| navel | : | put(o)- |
| near | : | xoixohin |
| neck | : | kinaw(e)- |
| needle | : | sa-sawit |
| nest | : | ij i manexux |
| net | : | lep, upen |
| nettle | : | nalat |
| new | : | haun |
| news | : | hõn |
| night | : | ipon |



| plant (parasitic) | wowok |
| :---: | :---: |
| platform (canoe) | sousa |
| to play | halok |
| to point | kola |
| pot (clay cooking) | salek |
| to pour | tih-ĩ |
| pregnant | kalixa |
| prow (of canoe) | konokon |
| to pull | etin-i |
| to punch | taputu-i |
| punting pole | ha |
| pus | nan |
| to push | sulin-i |
| quick (fast) | kosenan, taloian |
| radiance | xam |
| rafter | kaup |
| rain | akah |
| rain cape | sijilen |
| rat | usuh |
| rattan | wax(u)- |
| raw | manukan |
| to reach (a place) | meil-i |
| real | wanen |
| reciprocal marker | he, ta |
| to recognize | tio-i |
| to recover | ewiewiwa |
| red | kaka-n |
| reef | hok |
| reflection | hosa- |
| to repair | pula-i |
| to reside | to |
| to rest | hanaw |
| to rest the head | ululuy |
| to retaliate | kahuiwa |
| to return (home, etc.) | alia |
| rib | ku i pop |
| right (hand, side) | manaw |
| ripe | makan |
| to rise (sun, moon) | hah, sasasale |
| road | aw e sal |
| to roll up | lum-i |
| rollers (for canoe) | holo, lola (TP) |
| root | wahã-n |
| root (taproot) | wah ẽ pata |
| rope | tal |
| rotten | kohan |




| to squeeze | hunu-i |
| :---: | :---: |
| squid (small) | nus |
| squid (giant) | suiwãwãw |
| to stab | tapuh-ĩ |
| to stand up | tu |
| star | kohot |
| star (Evening) | tawisaean |
| starfish | kax |
| starfish (red, spiny) | ka |
| startled | seini |
| to steal | xuxuina |
| stench | poun kohan, poun lialun |
| stern (of canoe) | konokon |
| to stick | pakat-i |
| stone | hat |
| story | mey |
| straight | sawisawin |
| to stray | kaluta |
| string | tal |
| to string (as fish) | hasa-i |
| to submerge | kaxuk, nu |
| sucker (taro) | supulan |
| sugarcane | topiw |
| sun | al |
| sunset | al loloen |
| surf | maw huohu |
| to surface | kak |
| to swallow | tolom-i |
| swamp | ponapon |
| sweat | mapu(a)- |
| sweet | paon |
| sweet potato | peteta (TP) |
| to swim | nunu, pap |
| swollen | hulo |
| taboo | hahalin |
| to take (somewhere) | kau-wa |
| to talk | kakak |
| talkative | weli ka-kak |
| tall | weluwelun |
| taro (Colocasia) | hula |
| taro (Alocasia) | kuhukuh |
| to taste | namihin-i |
| tattoo | tahatahan |
| tears | kan i pul |
| termite | puoul |
| to test | namihin-i |



| turtle (generic) | hon |
| :---: | :---: |
| twenty | seilon |
| twin | sayasay |
| to twist | pilehen-i |
| two | hũõ-hu |
| uncooked | manukan |
| under | ahitake |
| to untie | upat-i |
| up | patul |
| to urinate | mimi-mim |
| urine | mimi |
| vagina | ek |
| vein | wa(o)- |
| venitive marker | -ma |
| very | pate |
| village | toan, xuxu- |
| vine sp. | ap |
| voice | kinax |
| vomit | mut |
| to vomit | mutu-mut |
| to wake up | ha, xayat |
| to walk | nahĩ |
| wall | saxe |
| to want | wahen-i |
| to wash | nuhĩ |
| water (fresh) | kan |
| water (salt) | kan i tax |
| waterspout | lamin |
| wave (in sea) | hulihul |
| to weed (garden) | sohut-i |
| to weep | tay |
| west/west wind | ahay |
| wet | waxexan |
| whale | anetalam |
| what (in questions) | la, al? |
| when (in questions) | lokon |
| where (in questions) | ia |
| to whet | axa-i |
| white | papaxaxun |
| who | aita |
| why? | nake |
| wide | mamanahan |
| wind | aupol |
| windward side | taun |
| wing | pau-n |
| wood (living) | pata |


| wood (cut) | $:$ | salo |
| :--- | :--- | :--- |
| to work | $:$ | nahĩ |
| wounded | $:$ | naxun |
| to wrap (fish/meat) | $:$ | sim-i |
| to write | $:$ | ta-i |
| wrong | $:$ | tales-i |
| to yawn | $:$ | maw |
| yellow | $:$ | ayoaŋon |
| yesterday | $:$ | tihah |
| you (SG) | $:$ | o |

### 1.5 HISTORICAL PHONOLOGY

Some aspects of the historical phonology of Seimat were treated briefly in Blust (1998a), but the treatment here aims at a more comprehensive account. Most derivations are from Proto-Oceanic rather than more remote PMP or PAN, although some Proto-Admiralty reconstructions are used where a POC equivalent is lacking.

The first thing to note is that $\mathrm{CVCV}(\mathrm{C})$ forms in POC were reduced to monosyllables by loss of the final consonant and the vowel that preceded it in a two-step process that began with loss of the coda (found in all languages of the Admiralties), followed later by loss of the vowel (found in all Admiralty languages except Wuvulu-Aua and at least one of the extinct languages of the Kaniet islands), as in *ñamuk (> ñamu) > nam 'mosquito', or *layo > lay 'housefly. Where the last vowel of the POC form was protected by a suffix, or was found in a full reduplication it was retained, giving rise to synchronic alternations between forms with and without the vowel, as in *batu > pat 'head', *batu-gu > patu-k 'my head', *qawa > aw 'mouth', *qawa-ña > awa-n 'his/her mouth', or *tanis > taŋ 'to cry', *tanis-taŋis > tani-taך 'to be crying'. It should be noted that this change took place even where the deleted vowel was part of a vowel sequence, as in POC *ia > i '3SG, s/he', *kiokio > kioki 'kingfisher', *kuriap > uxi 'dolphin', *pitaquR (> pitau) $>$ hita 'a common shore tree, Calophyllum inophyllum', or *Rabia > api 'sago palm'.

Apart from this process of final vowel loss and consequent synchronic alternation the five vowel system of POC was retained intact. By contrast, consonant changes in Seimat were extensive, as shown in Blust (1998a:305-307). A summary of major developments appears in Table 1.12:

Table 1.12: Seimat reflexes of POC consonants

| POC | Seimat |
| :--- | :--- |
| *pw | p |
| *bw | $?$ |
| ${ }^{\text {mw }}$ | $\mathrm{w}+\tilde{\mathrm{V}}$ |
| ${ }^{*} \mathrm{w}$ | w |
| *p | h |
| ${ }^{\mathrm{p}}$ | p |
| ${ }^{\mathrm{m}} \mathrm{m}$ | m |


| * ${ }_{\text {t }}$ | t |
| :---: | :---: |
| *d | 1 (?) |
| * | s, $\mathrm{x}, 1$ |
| *n | n |
| *r | $\mathrm{h}+\mathrm{V}, \mathrm{x}$ |
| *dr | k, x |
| * | 1 |
| * | s, $\mathrm{x}, 1$ |
| * | $\mathrm{s}, \mathrm{x}$ |
| *ñ | n |
| *y | y, n, Ø |
| *k | Ø |
| *g | k |
| * y | 7 |
| *q | $\emptyset$ |
| *R | $\emptyset$ |

POC had labiovelars *pw, *bw, *mw and *w. The first two of these were rare: *pw became $p$ in the sole known example in Seimat, no examples of *bw are known, *mw became $w$, but with nasalization of the following vowel, and ${ }^{*} \mathrm{w}$ became $w$ with no effect on the following vowel:
*pw > p: *kupwena > upen 'casting net'.
*mw > $w$ (+ nasal vowel): *mwata 'snake' > wãt 'earthworm', *maRuqane (> mwaqane) $>$ wãwãn 'male; man', *dramwa > $\operatorname{kaw}(\tilde{a})$ - 'forehead'.
*w > w (+ oral vowel): *waga > wa 'boat', *waRoj 'vine' > wao-n 'vein, tendon', *qawas > aw 'juvenile mullet', *mawiRi > kala-maw 'left side'.

In additon, POC had bilabials $* \mathrm{p},{ }^{* \mathrm{~b}}$ and $* \mathrm{~m}$. Of these $* \mathrm{p}$ lenited to $h, * \mathrm{~b}$ (which was automatically prenasalized) became a plain voiceless stop, and *m remained unchanged:
*p > h: *pa-> ha- 'causative prefix', *patu > hat 'stone', *pitolon > hitol 'hungry', *pose > hox 'canoe paddle', *putun > hut 'a tree: Barringtonia asiatica', *papine > hahine 'female; woman', *nopuq > noh 'stonefish'.
*b $([\mathrm{mb}])>p:$ *baluc > pal 'dove sp.', *boma > pom 'green seaweed used to paint canoes', *buto > put 'navel', *bubu > pup 'triggerfish', *Rabia > api 'sago palm', *ubu > up 'young coconut'.
*m > m: *mai > -ma 'venitive marker', *mimiq > mimi-mim 'urine; to urinate', *mona > mon 'canoe without outrigger', *mutaq $>m u t$ 'vomit', *kami $>$ ami- 'we (excl.)', *saman $>$ xam 'outrigger float'.

POC had seven alveolars, *t, *d, *s, *n, *r, *dr, and *l. POC *t, *n, and *l did not change. The prenasalized stop $* \mathrm{~d}$ is known from a single etymology, where it became $l$. The sibilant $*_{s}$
shows a three-way split for which conditions cannot presently be stated. The two rhotics both show an unconditioned split: *r became $h$ followed by a nasalized vowel (thus contrasting with *p, which became $h$, but with no change to the following vowel), or $x$ in some forms, and $* \mathrm{dr}$ usually became $k$, but became $x$ in one known form:
*t > $t$ : *tama > tama 'father', *tiqo > ti 'yellow and white barbelled fish, probably goatfish', *tolu (> *tolu-pu) > tolu-hu 'three', *tuna > tun 'eel sp.', *mutaq > mut 'vomit'.
*d $>l$ : *-da-tolu > la-to '3PL'.
*s > s, $x$ or $l$ : *salan > sal 'path, road', *qusila > usil 'lightning', *susu > sus 'female breast', *nusa > nus 'small squid', *qasawa > axoa- 'spouse', *tasik > tax 'sea', *lisaq 'nit' > lil 'louse', *suluq $>$ lul 'coconut leaf torch', *talise $>$ talil 'shore tree: Terminalia catappa'.

In *kanase > kanat 'mullet' POC *s inexplicably has become $t$.
*n > $n$ : *nanaq > nana- 'pus', *nopuq > noh 'stonefish', *nusa > nus 'squid', *mona > mon 'canoe without outrigger', *unum > ипи-un 'to drink; be drinking'.
${ }^{\mathrm{r}} \mathrm{r}>h$ (+ nasal vowel) or $x$ : *royoR > hõy 'to hear, listen', *rua >h hú-hũã 'two (in counting persons)', *bura > puh 'foam, bubbles', *quray > uh 'lobster', *ramaR > xam 'light, radiance', *karakarawa > axaxawa-n 'blue', *kuriap > uxi 'dolphin'.

In two known cases POC $* \mathrm{r}>k$, presumably through secondary prenasalization $*$ raun $>k a$ 'leaf', *ruRi 'thorn, fish bone' > kui- 'bone'.

The development of *maridri-ana > maki-an for expected **mahîkian 'cold' resembles reduction by haplology, although this more commonly happens with identical syllables.
*dr >k or $x$ : , *dramwa > kaw( $\tilde{a})$ - 'forehead', *dranum > kan 'fresh water', *kadroRa > koxa 'cuscus, opossum', *kadrut $>$ axut-i 'to scratch an itch'.

* 1 > l: *lalak > lal 'Trochus shell', *lisaq 'nit' > lil 'louse', *qalimayu > alimay 'mangrove crab', *qalu > al 'barracuda sp.', *quloc $>$ ul 'maggot, caterpillar', *pitolon $>$ hitol 'hungry'.

Of the four POC palatals ${ }^{*} \mathrm{c}$ and $*_{j}$ show partially similar developments (to $s, x$, or $l$ for the former, and to $s$ for the latter). The palatal nasal $* \tilde{n}$ became $n$, and the palatal glide *y dropped in two forms, but remained unchanged in a third and, oddly, appears to have become $n$ in a fourth word:
*c >s,x or $l$ : *acok > aso-i 'to sniff, smell', *acan >axa- 'name', *Rucan > uxan-i 'to load cargo on a boat', *pica > pil 'how much/how many?'
*j > s: *kayajo > ayas 'outrigger boom', *jila > sil 'sticks that connect the sail to the mast'.
In a single form $* \mathrm{j}$ is reflected as $1:$ *laje > lal 'coral limestone'.
*ñ > n: *ñamuk > nam 'mosquito'. *ñatuq > nat 'hardwood tree with edible fruit: Palaquium sp.', *poñu $>$ hon 'the green turtle: Chelonia mydas'.
*y > y or Ø: *kayajo > ayas ‘outrigger boom', *puqaya > hua 'crocodile’, *ruyuy > xu'dugong’.
BUT: *qayuyu > anun 'coconut crab’ (?).
POC had three velars, ${ }^{*} \mathrm{k}, * \mathrm{~g}$, and ${ }^{\mathrm{y}}$. Of these ${ }^{*} \mathrm{k}$ disappeared, ${ }^{\mathrm{g} \text { became } k \text { in the only example }}$ known, and ${ }^{*} \mathrm{y}$ did not change:
*k > Ø: *kalika > ali 'grouper sp.', *koe >o '2SG subject: you', *kusupe > usuh 'rat', *pulaka > hula 'wild taro', *saku $>$ sa 'needlefish'.
*g > $k$ : *-gu > -k '1SG possessive pronoun'.
*y $>\eta$ : *tayan 'thumb' > tan(a)- 'finger', *roŋoR > hõ 'to hear', *qalimayu > alimay 'mangrove crab'.

Finally, POC had two consonants that Ross (1998) calls 'post-velar': *q and *R. The first of these, reflected as $* \mathrm{k}$, glottal stop or zero in various Oceanic languages, probably was a uvular stop. The second, reflected as $r, l, y$, or zero in most Oceanic languages, probably was an alveolar trill that became uvular in much the same way that this type of change has happened in other language families. In Seimat both of these disappeared:
*q > $\emptyset$ : *qatun > at 'large tuna, bonito', *qisa > ih 'exclamation of disgust', *qumun > um 'earth oven', *qaqe $>a e$ - 'foot, leg', *maqati $>$ mat 'ebb tide'.
*R > Ø: *Rabia > api 'sago palm', *Rujan > uxan-i 'to load cargo on a boat', *toRas > to 'ironwood tree', *kuRita > wit 'octopus'.

As described in Blust (1998a), the most notable feature of Seimat historical phonology is the development of phonemic vowel nasality under two very different conditions. In the first of these, onset-driven nasal spreading led to allophonic nasality on the vowel immediately following a primary nasal consonant, and in some cases more distant vowels. This must have been the case before ${ }^{*}$ mw merged with $*$ w, and after this change the sequences $*$ mwa and ${ }^{*}$ wa were transformed to $w \tilde{a}$ and $w a$ respectively (and similarly with other vowels). In the second condition, POC *pa and *ra became $h a$ and $h \tilde{a}$. The condition for vowel nasalization here is more obscure, but falls under the general rubric of 'rhinoglottophilia' (Matisoff 1975), namely the crosslinguistic tendency for laryngeal consonants to trigger nasality on an adjacent vowel, evidently because the articulation of the consonant is difficult without producing a simultaneous lowering of the soft palate. In the case of Seimat we have to assume that the glottal fricatives produced by lenition of $* \mathrm{p}$ and ${ }^{\mathrm{r}}$ were phonetically distinct from one another at the time vowel nasalization in this environment occurred, the fricative from *r causing greater lowering of the velum. One last thing to note is that the numeral classifier in $t e-h u$, $h \tilde{u} \tilde{o}-h u$, and tolu-hu reflects the PMP general numeral classifer *buaq ('fruit'), which was postposed to numerals in Proto-

Admiralty, and appears in languages throughout this subgroup (cf. Proto-Admiralty *rua-fu 'two'). Surprisingly, hũõ-hu shows clear vowel nasality in the first two vowels, but none in the last. While this reflects the different sources of the two glottal fricatives in this word, one would normally expect nasality in such an environment to spread rightward.

A minor sound change is the semivocalization of $* u$ which came to be prevocalic as a result of the loss of an intervening consonant, as with POC *kuRita > wit 'octopus'.

As noted above, some POC phonemes have multiple reflexes in Seimat without clear conditions. The reason for this is obscure, but as early as the nineteenth century it was recognized that sound correspondences in the AN languages of Melanesia are less consistent than they are in their relatives elsewhere in the family. In addition to these splits, nearly all of which show two or more examples of each reflex, there are isolated irregularities in individual morphemes. Among those that have come to my attention are:

1. The apparent change $* y>n$ in *qayuyu > anun 'coconut crab' (possibly a chance resemblance; cp. Wuvulu axuхи, Aua aruru)
2. The retention of the final vowels in *patuR > hatu 'to plait, weave', *mimiq > mimi 'urine, urinate', and *upi > uhi 'to blow'
3. The reciprocal marker /he/ probably reflects the POC prefix *paRi- with sporadic contraction of the vowel sequence $a+i$ after loss of the intervening *R
4. The sporadic assimilation of the first syllable vowel in *papine > hehin 'female, woman'
5. POC *pia > ia 'where?' rather than the expected **hi
6. The thematic vowel in *mutaq > Seimat mut 'vomit, vomitus' : mutu-mut 'to be vomiting' is unexpected, and may be a product of sporadic assimilation
7. The unexplained change in *salaton > nalat 'stinging nettle', and of both the medial and final consonants in PADM *mosimo > moxin 'a shore tree: Casuarina equisetifolia'
8. The sporadic assimilation of $h$ to $x$ in *pisiko > xixio- (expected $* *$ hixio-) 'flesh, muscle', and hoxe- $i \sim$ xoxe- $i$ 'to paddle a canoe'

Also irregular is the final consonant in POC *sawit > sa-sawit 'needle', possibly a backformation from sawit-i 'to sew', where the consonant was retained before a transitive suffix (cp. Wuvulu tawi, Penchal ciw 'needle', with unrelated forms for 'to sew'). Finally, Seimat top-iw may reflect POC *topu 'sugarcane', with a still unidentified morpheme added at the end.

Relatively little can be said about ordering sound changes in Seimat. Among inferences that are fairly safe are $1 . * \mathrm{p}>h$ preceded $* \mathrm{pw}>p$ and $* \mathrm{~b}([\mathrm{mb}])>p$, and $2 . * \mathrm{p}>h$ and $* \mathrm{r}>h$ happened at different times, and (despite appearances) they did not merge, as the following vowel is oral after reflexes of *p but nasal after reflexes of *r. Since POC *p is reflected as $f / v$ in Wuvulu and Aua, *p > $h$ must have followed the separation of Seimat from these languages, which implies that Seimat still had the labiovelar /pw/, and at least one prenasalized voiced stop, namely $/ \mathrm{b} /$, during its separate history apart from other languages in the Western Islands, a point which I take up below with regard to the issue of 'secondary nasal grade' in the Admiralty Islands.

### 1.6 SEIMAT REFLEXES OF PROTO-OCEANIC AND PROTO-ADMIRALTY

|  | POC | PADM | SEIMAT |  |
| :---: | :---: | :---: | :---: | :---: |
| 001. | *acan | *ara- | axa- | name |
| 002. | *acok | *aso (?) | aso-i | to sniff, smell |
| 003. | *alali | *alali | alal | halibut, sole |
| 004. | *ayo-ayo-ana | *ayo-ana | ayo-ayon | yellow |
| 005. | *api | *api | ah | fire |
| 006. | *asay | *asa | axa- | gills |
| 007. | *asaq-i | *asaq-i | axa-i | to whet, sharpen |
| 008. | *baluc | *balu | pal | dove, pigeon |
| 009 |  | *bapawV | papaw | oars |
| 010. |  | *baronV | pahon | handle of axe |
| 011. | *batay | * bata | pata | trunk; tree |
| 012. | *batuk | * batu | patu- | head |
| 013. | *bekas | * be-be (?) | pe-pe-pe | to defecate |
| 014. | *boma | *boma | pom | seaweed variety |
| 015. | *boni | *boni | i-pon | night |
| 016. | *boRok | * boo | pow | pig |
| 017. | * bou | *bou- | pou- | smell, odor |
| 018. | *bubu | *bubu | pup | trigger fish |
| 019. | *buto | * buto | puto- | navel |
| 020. | *damwa | *dramwa- | kawã- | forehead |
| 021. |  | *draraRV | kah | lionfish |
| 022. |  | *draloqopV | kaloh | canoe bailer |
| 023. |  | *drameV | kame-i | to ask |
| 024. | *d(r)amut | *dramu | xam | lime spatula |
| 025. | *dranum | *dranu | kan | fresh water |
| 026. | *draRaq | *draya | ka-ka | blood |
| 027. | *-gu | *-ku | -k | 1SG possessor |
| 028. | *jila | *cila | sil | sheet of the sail |
| 029. | * kadroRa | *kodraya (< met.) | koxa | opossum |
| 030. |  | *kagV | ka | spiny starfish |
| 031. | *kalika | *kalika | ali | grouper sp. |
| 032. | *kanase | *kanase | kanat | mullet |
| 033. | *kani | *kani | an | food |
| 034. | *kayajo | *kayaco | ayas | outrigger boom |
| 035. | *kiaw | *kiokio | kioki | kingfisher |
| 036. | *koti | *koti | kot-i | to cut |
| 037. | *kulit | *kuli | uli- | skin |
| 038. | *kuluR | *kulu | ul | breadfruit |
| 039. |  | *kuñV | kun | coconut leaf basket |
| 040. | *kupwena | *kupwena | upen | casting net |
| 041. | *kuriap | *kuria | uxi | dolphin |
| 042. | *kururu | *kururu | kuhuh | thunder |


| 043. | *kuRita | *kuita | wit | octopus |
| :---: | :---: | :---: | :---: | :---: |
| 044. | *kusupe | *kusupe | usuh | rat |
| 045. | *laje | *lace | lal | coral limestone |
| 046. | *lalak | *lala | lal | Trochus shell |
| 047. | *laman | *lama | i-lam | deep sea |
| 048. | *layo | *layo | lay | housefly |
| 049. | *lapa | *laba | la-lap | big, large |
| 050. | *lisaq | *lisa | lil | nit, louse egg |
| 051. | *lumiq | *lumi | lum-i | to fold; to roll up |
| 052. | *madra | *madra-nV | maka-n | ripe |
| 053. | *malip | *mali | mal | to laugh |
|  |  |  | mali-mal | laughing |
| 054. | *manuk | *manu | man-e-xux | bird (?) |
| 055. | *maqañur | *mañu | manu-man | to drift on a current |
| 056. | *maqati | *mati | mat | low tide; tide |
| 057. | *maridriy | *maridri-ana | maki-an | cold |
| 058. | *maRi | *mai | ma | to come, hither |
| 059. | *maRuqane | *mwane | wa-wan | male; man |
| 060. | *matakut | *mataku | ma-mata | afraid (?) |
| 061. | *mate | *mate | mat | dead |
| 062. | *matiruR | *matiru | mati(hũ) | to sleep |
| 063. | *mawap | *mawa | maw | to yawn |
| 064. | *mawiRi | *mawi | kala-maw | left side |
| 065. | *mimiq | *mimi | mimi | urine |
| 066. |  | *mona | mon | dugout canoe |
| 067. |  | *mosimo | moxin | Casuarina spp. |
| 068. | *-mu | *-m | -m | 2SG possessor |
| 069. | *mutaq | *muta | mut | vomitus |
|  |  |  | mutu-mut | to vomit |
| 070. |  | *mwalutV | walut | large dove sp. |
| 071. | *nanaq | *nana | nana- | pus |
| 072. | *natu | *natu | natu- | child, offspring |
| 073. | *nima | *mina- (< met.) | mina- | hand |
| 074. | *nopu | *nopu | noh | stonefish |
| 075. | *nusa | *nusa | nus | small squid |
| 076. | *-ña | *-na | -n | 3SG possessor |
| 077. | *ñamuk | *ñamu | nam | mosquito |
| 078. | *ñatuq | *ñatu | nat | Palaquium spp. |
| 079. |  | *ñuV | nu | to dive |
| 080. | *papine | *pepine | hehin | female, woman |
| 081. | *pataR | *pata | hata-hat | firewood shelf |
| 082. | *patu | *patu | hat | stone |
| 083. | *patuR | *patu | hatu | to plait, to weave |
| 084. |  | *paunV | haun | new |
| 085. | *pia | * pia | ia | where? |
| 086. | *pijiko | *pisiko | xixio- | flesh, muscle |


| 087. | *pitaquR | *pitau | hita | Calophyllum spp. |
| :---: | :---: | :---: | :---: | :---: |
| 088. | *pitolon | *pitolo | hitol | hungry |
| 089. | *poñu | * boñu | hon | the green turtle |
| 090. | *pose | * bose | hox | canoe paddle |
|  |  | * bose-i | hoxe-i | to paddle a canoe |
| 091. | *puaq | * bua- | hua- | fruit |
| 092. | *pulaka | * bulaka | hula | taro |
| 093. | *puqaya | * buaya | hua | crocodile |
| 094. | *putun | * butu | hut | Barringtonia spp. |
| 095. | *qalimayu | *qalimay | alimay | mangrove crab |
| 096. | *qalo | *qalo | al | sun; day |
| 097. | *qalu | *qalu | al | barracuda |
| 098. | *qaqe | *qae | ae- | foot/leg |
| 099. | *qasawa | *qasawa- | axoa- | spouse |
| 100. | *qase | *qase | axe- | chin, jaw |
| 101. | *qasu | *qasu | axu- | gall (bladder) |
| 102. | *qasu | *qasu | axu- | smoke |
| 103. | *qate | *qate | ate- | liver; heart |
| 104. | *qatoluR | *qatolu | atolu- | egg |
| 105. | *qatun | *qatu | at | skipjack tuna |
| 106. | *qawa | *qawa | awa- | mouth |
| 107. | *qayuyu | *qayuyu | anun | coconut crab (?) |
| 108. | *quloc | *qulo | ul | maggot |
| 109. | *quluy-an | *qul-uluya | ul-uluy | headrest, pillow |
| 110. | *qumun | *qumu | um | earth oven |
| 111. | *quray | *qura | uh | lobster |
| 112. | *qusila | *qucila | usil | lightning |
| 113. | *qutin | *quti | uti- | penis |
| 114. | *qutup | *qutup-i | utuh-i | submerge to fill |
| 115. | *ramaR | *drama | xam | light, luminosity |
| 116. | *raun | *drau | ka- | leaf |
| 117. | *rojoR | *royo | hõท hõyo-hõy | to hear hearing |
| 118. | *rua | *ruo-pu | hũõhu | two |
| 119. | *ruRi | *drui | kui- | bone |
| 120. | *ruyuy | *druyu | xu | dugong |
| 121. | *Rabia | *yabia | api | sago palm |
| 122. | *Rucan | *uran-i | uxan-i | to load cargo |
| 123. | *saku | *caku | sa | needlefish |
| 124. | *salan | * cala | aw e sal | path, road |
| 125. | *salator | *ñalato | nalat | stinging nettle |
| 126. | *saman | *cama | xam | outrigger float |
| 127. | *saya | * caya | saya-saya- | fork of branch |
| 128. | *sauq | *sau | xau-xau-an | far, distant |
| 129. | *sawit | * cawit-i | sa-sawit | needle |
|  |  |  | sawit-i | to sew |


| 130. | *suluq | *culu | lul | coconut leaf torch |
| :---: | :---: | :---: | :---: | :---: |
| 131. | *susu | *susu | susu- | female breast |
| 132. | *susup | *susu | susu-i | to suck (general) |
| 133. | *tali | *dali | tal | rope, string |
| 134. | *talina | *dalina | taxiya- | ear |
| 135. | *talise | *dalise | talil | Terminalia catappa |
| 136. | *tama | *tama | tama- | father |
| 137. | *tanipa | *danipa | tanih | sardine |
| 138. | *tanis | *taji | tay tani-tan | to weep, cry crying |
| 139. | *tasik | *dasi | kan itax taxi-an | saltwater salty |
| 140. | *tasim | *tasim-i | tasim-i | sharpen to a point |
| 141. | *tian | * dia- | tia- | abdomen, belly |
| 142. | *tina | *tina | tina- | mother |
| 143. | *tiqo | *tio (?) | tio-ti | goatfish variety |
| 144. |  | *tiwa | tiw | sideboard of canoe |
| 145. | *tokalaur | *tolau | tola | north wind |
| 146 | *tolu | *tolu-pu | toluhu | three |
| 147. | *toRas | * doa | to | ironwood |
| 148. | *tuna | *duna | tun | freshwater eel |
| 149. | *tuqur | *tu | tu | to stand |
| 150. | *tuRu | *du | ku-ku | housepost |
| 151. | *unum | *unu | un <br> unu-un | to drink drinking |
| 152. | *upi | *upi | uhi | to blow |
| 153. | *waga | *waka | wa | outrigger canoe |
| 154. |  | *wasiw | waxu- | rattan, cane |
| 155. |  | *watiV | wat | monitor lizard |

### 1.7 SECONDARY NASAL GRADE IN THE ADMIRALTY ISLANDS

Before leaving the sketch of Seimat, there is a matter that must be clarified in relation to this language, as it affects the description of the historical phonology of other languages in the Admiralty group.

An oral grade/nasal grade contrast in the reflexes of certain consonants in Oceanic languages has been recognized in principle since Dempwolff (1920:27-37), who noted that a $* \mathrm{p} / \mathrm{b}$ distinction that is retained in "Indonesian" languages was lost through merger as a voiceless stop or fricative in most Austronesian languages of the Pacific, but in its place *mp and *mb have merged as a prenasalized voiced stop, or some continuation of it with greater construction than the oral grade counterpart. In time, Dempwolff's insight was generalized to a wider set of consonants, and to account for similar developments in a wide range of Oceanic languages, Grace (1959:27) coined the terms 'oral grade' and 'nasal grade' to describe the differences in reflex patterns.

With regard to languages of the Admiralty Islands, Ross (1988:335) made two important observations relating to consonant grade, which are quoted with minor changes here $(\mathrm{PAd}=$ Proto-Admiralty):

1) The conventional oral-/nasal-grade pairs of POC, ${ }^{\mathrm{p}} / \mathrm{b}, * \mathrm{t} / \mathrm{d}, *_{\mathrm{r}} / \mathrm{dr}, * \mathrm{~s} / \mathrm{j}$, and $* \mathrm{k} / \mathrm{g}$ were apparently reflected in PAd without change (PAd ${ }^{*} \mathrm{p} / * \mathrm{~b}$ may have been $*[\mathrm{f}] / *[\mathrm{p}]$, but this is uncertain and it will lessen confusion to retain the POC orthography here.
2) Secondary nasal grade is a phenomenon peculiar to the Admiralties, and refers to a second set of reflexes of POC *p-, *t-, *r-, *s- and *k- which occurs (i) only wordinitially and (ii) only on common nouns. This grade is assumed to be nasal partly because some of its reflexes are prenasalised consonants, and partly because its environment suggests that it has resulted from cliticisation of *na, one of two variants *a and *na of the POC common article ..., with subsequent vowel loss leaving the clitic Pad $* \mathrm{n}$ - to coalesce with the initial consonant of the noun.

In summary, Ross (1988) proposed that secondary nasal grade was an innovation in ProtoAdmiralty, and hence is one of the changes that defines this subgroup of Oceanic languages. It is easy to see how one might draw this conclusion, since secondary nasal grade reflexes of exactly the kind Ross describes are found in Wuvulu-Aua of the Western Islands, and are universal in the languages of the eastern Admiralties. However, as can be determined from the tables of reflexes in Ross (1988:321-25), and from the etymologies in 1.6, secondary nasal grade in Seimat does not occur for reflexes of POC $*_{\mathrm{p}-,} *_{\mathrm{t}}$, or $* \mathrm{k}$-, and is, in fact, contradicted for the labial order. Ross nonetheless claims that POC $*_{\mathrm{r}} \mathrm{r}$ is normally reflected as Seimat $/ \mathrm{h} /$, but shows secondary nasal grade in $/ \mathrm{x} /-$ or $/ \mathrm{k} /-$, and that POC $* \mathrm{~s}$ is normally reflected as Seimat $/ \mathrm{s} /$, but shows secondary nasal grade in /x/- or /l/-. My own data does not support the latter claim, as seen with *saku > sa 'needlefish', *salan > aw e sal 'path, road', *saŋa > saya-saya- 'fork of a branch', or *susu > susu- 'female breast', none of which should begin with $s$-, or *sauq > xau-xau-an 'far, distant', which should not begin with $x$-.

The Seimat evidence for secondary nasal grade, then, appears to be based exclusively on reflexes of *r, where it appears to be reasonably secure (*ronoR > hõy 'to hear', *ruo-pu > hũõhu 'two', but *raun >ka-'leaf', *ruRi- > kui- 'bone', or *ruyuy >xu'dugong', with the same initials as *d(r)amut > xam 'lime spatula', *dranum > kan 'fresh water', or *draRaq >ka-ka 'blood', hence with secondary nasal grade. However, since the evidence against secondary nasal grade is unambiguous for the labial order, as seen in *baluc > pal 'dove, pigeon', *batuk > patu- 'head', *boni > i-pon 'night', *boRok > pow 'pig', or *Rabia > api 'sago palm', as against *patu > hat 'stone', *poñu > hon 'the green turtle', *pose > hox 'canoe paddle', or *puqaya > hua 'crocodile', exactly like *patuR > hatu 'to plait, weave', *pitolon $>$ hitol 'hungry', *pia $>$ ia 'where?' (with unexplained *p > *h > Ø), *api > ah 'fire', or *kusupe > usuh 'rat', it would appear that secondary nasal grade was only beginning in PADM, but had not yet reached all consonant orders. In short, secondary nasal grade evidently was not an abrupt change, but operated more as a drift that took time to complete.

Under this view the common noun article *na was part of the same phonological word as its host noun, and began to lose its unstressed vowel and threaten merger of the nasal with base-initial consonants in PADM. However, at this stage the change was preliminary, and was completed
only for bases that began with $* r$ (perhaps because a prenasalized alveolar trill $* d r$ - already existed at this time as a continuation of a POC consonant *dr). Given the pattern of reflexes, we have little choice but to conclude that bases beginning with a reflex of POC *p, *t, *s or *k underwent secondary prenasalization only after Wuvulu-Aua separated from Seimat, and hence after Proto-Western Islands separated from Proto-Eastern Admiralties (PEADM). Since all known descendants of PEADM show secondary nasal grade reflexes for all consonant orders, it is reasonable to conclude that this change had taken place in PEADM before its split into ProtoManus and Proto-Southeast Admiralties. In other words, the development of secondary nasal grade in Admiralty languages for bases that began with a reflex of POC *p, *t, *s or *k probably happened independently in Wuvulu-Aua, Seimat, and Eastern Admiralty languages, as shown in Table 1.13, where different consonant orders were affected at different times (PW-A = pre-Wuvulu-Aua, PS = pre-Seimat):

Table 1.13: The development of secondary nasal grade consonants in languages of the Admiralties

| POC | *p | * ${ }_{\text {t }}$ | *r | * | *k |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PADM | *p | * ${ }_{\text {t }}$ | $\begin{aligned} & \text { *r (OG) } \\ & \text { *dr (NG) } \end{aligned}$ | *S | *k |
| PW-A | $\begin{aligned} & \text { *p (OG) } \\ & \text { *b (NG) } \end{aligned}$ | *t (OG/NG) | $\begin{aligned} & \text { *r (OG) } \\ & \text { *k/x (NG) } \end{aligned}$ | *s (OG/NG) | *k (OG/NG) |
| PS | *p (OG/NG) | *t (OG/NG) | $\begin{aligned} & * \mathrm{~h}(\mathrm{OG}) \\ & * \mathrm{k} / \mathrm{x}(\mathrm{NG}) \end{aligned}$ | *s (OG/NG) | *k (OG/NG) |
| PEADM | *p (OG) <br> *b (NG) <br> *br (NG/__u) | $\begin{aligned} & * \mathrm{t}(\mathrm{OG}) \\ & * \mathrm{dr}(\mathrm{NG}) \end{aligned}$ | $\begin{aligned} & \text { *r (OG) } \\ & \text { * } \operatorname{dr}(\mathrm{NG}) \end{aligned}$ | $\begin{aligned} & *_{\mathrm{s}}(\mathrm{OG}) \\ & { }^{\mathrm{c}} \mathrm{c}(\mathrm{NG}) \end{aligned}$ | $\begin{aligned} & * \mathrm{k}(\mathrm{OG}) \\ & \text { *g(NG) } \end{aligned}$ |

This hypothesis, which more adequately accounts for the data than one in which secondary nasal grade was already a fait accompli in Proto-Admiralty, is reminiscent of the various stages in the history of pluralizing umlaut in English and High German, in the classic discussion of drift by Sapir (1921:171-91). It in no way detracts from the integrity of the Admiralty subgroup, which is supported by multiple lines of evidence, from sporadic sound changes like the vowel metathesis in POC *kadroRa > PADM *kodraRa 'cuscus', to numeral exclusively shared lexical innovations, as shown in 1.6, and the corresponding sections in other language sketches.

Given the evidence that secondary prenasalization was a gradual change in these languages, as summarized in Table 1.13, the term 'PADM' in the remaining sketches must be understood in its literal sense with regard to lexical reconstructions only --- i.e. to qualify as PADM a cognate set must be attested in both primary branches of the Admiralty group. With regard to secondary nasal grade, however, the term 'PADM' often means 'PEADM'.


[^0]:    ${ }^{1}$ For reasons explained there, Blust (1998a) assigned nasality to the $h$ and $w$ preceding a nasalized vowel; in the present description nasality is written on the vowel.

[^1]:    ${ }^{2}$ They are not completely consistent, as seen in sentence (6) on p. 12 , or the first sentence of their interlinearized text on p. 92, where they write natu-k 'my son', and loku-k 'my friend' instead of the expected nat-uk and lok-uk. It is possible that in an earlier version of their analyis they assigned the thematic vowel to the stem, and when they changed their position on this, they did not revise all examples.

[^2]:    ${ }^{3}$ Cp. Eastern Admiralty forms such as Loniu pwaha can, Titan pwan cal (= 'mouth of path') 'path, road'.

[^3]:    ${ }^{4}$ I did not record the number 'fifteen' and its derivatives; these have been taken from Wozna and Wilson (2005:21).

[^4]:    ${ }^{5}$ I am indebted to Hiroko Sato for having first drawn my attention to this matter.

[^5]:    ${ }^{6}$ In Fijian and some other Oceanic languages the non-general possessive classifer for 'sugarcane' marks drinkable possession.

