# Organised Phonology Data 

Are Language [MWC] Cape Vogel - Milne Bay Province

Oceanic; Papuan Tip; Nuclear Papuan Tip; Are-Taupota; Are chain
Population census: 1921 (year 2000, only people above 18 years old)
Major villages: Mukawa, Bogaboga, Ginada, Irikaba, Wabubu and parts of Dabora
Linguistic work done by: BTA / Wycliffe Sweden
Data checked by: Erik and Ingrid Svensson (April 2006)
(Data based on 10 months of work in the language and an Alphabet Development Workshop held October 17-21, 2005).

## Phonemic and Orthographic Inventory



## Consonants

|  | Bilab | LabDen | Dental | Alveo | Postalv | Retro | Palatal | Velar | Uvular | Pharyn |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Glottal |  |  |  |  |  |  |  |  |  |  |
| Plosive | p b |  | t d |  |  | k g |  |  |  |  |
| Nasal | m |  | n |  |  |  |  |  |  |  |
| Trill |  |  |  |  |  |  |  |  |  |  |
| Tap/Flap |  |  | r |  |  |  |  |  |  |  |
| Fricative |  |  | s |  |  |  |  |  |  |  |
| Lateral <br> Fricative |  |  |  |  |  |  |  |  |  |  |
| Approx |  |  |  |  | j |  |  |  |  |  |
| Lateral <br> Approx |  |  |  |  |  |  |  |  |  |  |
| Ejective <br> Stop |  |  |  |  |  |  |  |  |  |  |
| Implos |  |  |  |  |  |  |  |  |  |  |

/w/ voiced labio-velar approximant
$/ \mathrm{k}^{\mathrm{w}}$ / voiceless labialized velar plosive
$/ \mathrm{g}^{\mathrm{w}} /$ voiced labialized velar plosive

| /p/ | pesi | ['pesi] |  | /j/ | yove | ['jove] | 'house' |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | epamana | [epa'mana] | ‘cave’ |  | uwayo | [u'wajo] | 'crocodile' |
|  |  |  |  |  | yiyaira | [ji'jaira] | 'fork stick' |
| /b/ | besa | ['besa] | 'banana' |  |  |  |  |
|  | diboga | [di'boga] | 'turtle' | /k/ | kao | ['kao] | 'sun' |
|  |  |  |  |  | moke | ['moke] | 'banana' |
| /m/ | manu | ['manu] | 'bird' |  |  |  |  |
|  | kumuru | [ku'muru] | 'tuna fish' | /g/ | gara | ['gara] | 'clothes, fence' |
|  | kam | ['kam] | 'food' |  | menaga | [me'naga] | 'pawpaw' |
| /t/ | tama | ['tama] | 'father' | /w/ | vivira | [vi'vira] | 'big fruit flies' |
|  | vitavita | [vita'vita] | 'octupus' |  | veyara | [ve'jara] | 'chest nut' |
|  |  |  |  |  | waka | ['waka] | 'boat' |
| /d/ | dam | ['dam] | 'clan' |  | sawara | [sa'wara] | 'thing' |
|  | gudugudu | [gudu'gudu] |  |  | wokuwoku | [woku'woku] | 'prawn’ |
|  |  |  |  |  | wuwunai | [wuwu'nai] | 'in beginning' |
| /n/ | nawaravi <br> sinim | [nawa'ravi] <br> [si'nim] | 'moon' <br> 'your body' |  |  |  |  |
|  |  |  |  | /k ${ }^{\text {w/ }}$ | kwebuna | [ $\mathrm{k}^{\mathrm{w}}$ e'buna] | 'empty' |
|  |  |  |  |  | ikwa | ['ik ${ }^{\text {w }} \mathrm{a}$ ] |  |
| /r/ | rapiya | [ra'pija] | 'sago' |  |  |  |  |
|  |  | [kiri'kiri] |  | $/ \mathrm{g}^{\mathrm{w}} /$ | gwigwira | [ $\mathrm{g}^{\mathrm{w}} \mathrm{l}^{\prime}{ }^{\text {wira }}$ ] | 'throwing stick' |
|  |  |  |  |  |  |  | 'grope' |
| /s/ | sebare | [se'bare] | 'man' |  |  |  |  |
|  | pasira | [pa'sira] |  |  |  |  |  |

## Vowels

| i |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | e |  | u |
|  |  |  |  |
|  |  | $a$ |  |


| /i/ | inaba | [i'naba] | 'kundu drum' | /o/ | otona | [o'tona] |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | 'sap'


| /a/ | akima | [a'kima] | 'stone' |
| :--- | :--- | :--- | :--- |
|  | bada | $[$ 'bada $]$ | 'lord' |
|  | bao | $[$ 'bao $]$ | 'garden' |
|  | meyaga | [me'jaga] $]$ | 'village' |
|  | keta | $[$ 'keta $]$ | 'road' |

## Diphthongs

There are no phonemic diphthongs in Are.

## Suprasegmentals (tone, stress, length)

There are no phonemic length or tone in Are.
Stress in Are is predictable and occurs on the penultimate syllable.
If the stressed syllable is a V or CV , stress is realized through lengthening of the vowel in the stressed syllable.
'be.sa 'banana' 'ku.kou 'dog'
ni.'u.ra 'coconut' to.po.to.'po.na 'name of a fish'
When the penultimate syllable is a CVV, and the word is said in isolation (or as the last word in a string of speech), the only realisation of stress is an exception in the vowel deletion process (see Syllable Patterns below). In this case, the penultimate CVV does not turn into a CV but instead maintains its long character ${ }^{1}$.

| 'bau.na | 'different' | si.'yau.wa | 'fish, meat' |
| :--- | :--- | :--- | :--- |
| 'mai.re | 'shell fish' | 'dau.wa | 'sleep' |

When there is a word final closed syllable, it is likely that the stress goes to the ultimate syllable. In this case no lengthening takes place in the penultimate syllable. However, the ultimate closed syllable does not change in length, pitch or strength either. The same applies to a penultimate closed syllable followed by an open syllable.
a.na.'kam 'I will eat.' ka.bi.'tam.ni 'properly'

## Syllable Patterns ${ }^{2}$

| V | e | a.ki.ma | ni.u.ra | de.u |
| :---: | :---: | :---: | :---: | :---: |
|  | 'yes' | 'stone' | 'coconut' | 'type of canoe' |
| CV | ba | be.sa | a.ne.nae | to.re |
|  | 'and' | 'banana' | 'I'm going' | 'beach' |
| CVV | kao | mai.sa | si.tau.ya | ku.kou |
|  | 'sun' | 'payment' | 'they took off' | 'dog' |
| $\mathrm{CVC}^{3}$ | kam | kam. yo | im.sim.si.ri | ka.bi.tam |
|  | 'food' | 'throat' | 'he was standing' | 'properly' |

One highly significant feature in Are speech is a vowel deletion process. With a few exceptions, CVV syllables are only allowed as the last syllable from a pause in a string of speech, and as the second last if that syllable is stressed. If a CVV is located in any other place it often gets reduced to CV , as the first vowel is deleted.

A combination of two adjacent vowels can form either one or two syllables depending on which vowels are combined. The following combinations form one syllable, except at morpheme boundaries: /ai/ /au/ /ae/ /ao/ /ei/ /ou/

[^0]For example: /ai/ CVV.CV 'kai.wa 'greeting'
All other vowel combinations form two syllables.
For example: /iu/ CV.V.CV ni.'u.ra 'coconut'

## Conventions: Phonological

The phoneme /w/ has the following distribution:

$$
/ \mathrm{w} / \rightarrow[\mathrm{v}]=[\mathrm{v}]=[\beta] /{ }_{\mathrm{L}}[\text { front vowel }]
$$

[w] / elsewhere

| /waba/ | ['waba] | 'name' |
| :--- | :--- | :--- |
| /wose/ | ['wose] | 'to make' |
| /duwu/ | ['duwu] | 'meeting' |
| /wera/ | ['vera] | 'to run' |
| /wiwira/ | [vi'vira] | 'big fruit flies' |

There are a few exceptions to this rule where /w/ stays as [w] before [e], e.g. [we'guru] 'a type of grass'.

The phonemes $/ \mathrm{g}^{\mathrm{w}} /$ and $/ \mathrm{k}^{\mathrm{w}} /$ only precede $/ \mathrm{a} /$, /e/ and $/ \mathrm{i} /$.
The transitional glides [j] and [w] are analysed as being phonemically present. This also reflects the orthographic preference of the Are people.

When two vowels of the same quality come together because of reduplication, they underlyingly belong to different syllables, but are pronounced as one lengthened vowel.

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/apoopopo/ [apo:'popo] a.po.o.po.po <apoopopo> 'I am sewing.'
/tebootete/ [tebo:'tete] te.bo.o.te.te <tebootete> 'They are crawling.'
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## Conventions: Orthographic

The phoneme /w/ is overdifferentiated in the orthography. <w> is written before <a>, < 0 > and <u>, and <v> is written before <e> and <i>. In the Alphabet Development Workshop in 2005 the Are people decided to write in this way. The reason for it was that they had gotten used to writing both $\langle\mathrm{w}\rangle$ and $\langle\mathrm{v}\rangle$ and did not want to change it.

The semivowels $/ \mathrm{w} /$ and $/ \mathrm{j} /$ are written $\langle\mathrm{w}\rangle$ and $\langle\mathrm{y}\rangle$ following the English, Tok Pisin and other neighboring languages such as Gapapaiwa.

Transitional glides are written between all vowel combinations going from High to Low, High to Mid and Mid to Low. Following the spelling rules for $/ \mathrm{w} /,\langle\mathrm{v}\rangle$ is written in the combination /uwe/.

| Phonemes | Written | Example | English |
| :--- | :--- | :--- | :--- |
| /owa/ | <owa> | okowa | 'water' |
| /uwa/ | <uwa> | ruwamo | 'two' |
| /uwe/ | <uve> | i botuvei | 'he brought it' |
| /iya/ | <iya> | abiya | 'war' |
| /iye/ | <iye> | i sisiyei | 'he told it' |
| /iyo/ | <iyo> | biyo | 'flesh' |
| leya/ | <eya> | keyama | 'wood' |

The Are people decided to write these transitional glides because they thought it would make it easier to write consistently.

Inflectional verbal prefixes are separated from the stem in the orthography. The inflectional prefixes form one word if they consist of one or two syllables. If they consist of three syllables, the initial two syllables form one word, and the third one forms another word on its own.
Derivational prefixes are not separated from the verb stem unless they are merged with an inflectional prefix, as in the last example below.

| ke kiruma | 'You write!' |
| :--- | :--- |
| sina botu | 'They will come.' |
| ata kai bitaba | 'I should cook first.' |
| ati taba | 'I should cook.' |

The reason to why the Are people wanted to separate these prefixes was to make the words shorter and easier to read.

## Sample Text

mara kesana | kaiwabo kesana kam kaikapona iwosei | ba manu asi ruwamo ijorisi sitanae sitariku kairawina || nikosi manu asi ruwamo kesana kana waba jawajawa | ba kesana kana waba waowao || asi ruwamo wai nuwagairejai simamana || mamanina sikamkam jabata | sibaobao jabata ba asi jove kesana || maranai kaiwabo ana wara sinonori wai sinuwagaire | ba sitauja || asi inaba sijauna | ba kasi kaubunaga sijauna | ba sitauja sinae || sinae siwerawera kasibau maranai | okowa kawanai simakira sijakam | ba siwona | nina tanikaubunaga ba murijai tanakasibau | ku mejaga || dama | sigakira sitowa | ba sigae ba waowao iwona | jawajawa | kekenokira ba kom anasabaim | ba murijai kunasabaiku || dama | jawajawa ikenokira | ba waowao wai kona | sebare $\mathrm{k}^{\mathrm{w}} \mathrm{ik}^{\mathrm{w}}$ irina | ana saba pesarisi || mutusi taratarasi | mutusi janojanosi | bairumatamatagisi ba mutusi wai | dumadumasi || ijauna | ba
jawajawa isabai || jawajawa isabai wai kana kinana igaire saki ba monimonikina

Mara kesana, kaiwabo kesana kam kaikapona i wosei, ba manu asi ruwamo i yorisi si tanae sita riku kairavina. Nikosi manu asi ruwamo kesana kana waba Yawayawa, ba kesana kana waba Waowao. Asi ruwamo wai nuwagaireyai si mamana. Mamanina si kamkam yabata, si baobao yabata ba asi yove kesana.

Maranai kaiwabo ana wara si nonori wai, si nuwagaire ba si tauya. Asi inaba si yauna ba kasi kaubunaga si yauna ba si tauya si nae. Si nae si veravera kasibau maranai okowa kawanai si makira si yakam ba si wona: "Nina tani kaubunaga ba muriyai tana kasibau ku meyaga."

Dama, si gakira si towa ba si gae ba Waowao i wona: "Yawayawa, ke kenokira ba kom ana sabaim, ba muriyai kuna sabaiku." Dama, Yawayawa i kenokira ba Waowao wai kona sebare kwikwirina, ana saba pesarisi - mutusi taratarasi, mutusi yanoyanosi, bairumatamatagisi, ba mutusi wai dumadumasi. I yauna ba Yawayawa i sabai. Yawayawa i sabai wai kana kinana i gaire saki ba monimonikina...

Once upon a time, there was a chief who was going to have a big feast, and he sent for two birds to come and dance for him. The two birds were called Yawayawa and Waowao, and they were very good friends. They were always eating and gardening together, and they lived in the same house.

When they got the message from the chief, they became very happy and got going. They took their kundu drums and their decorations and took off. They started flying, and when they came to a river, they sat down to rest, and they said: "Let's decorate ourselves here, and then we can fly in to the village."

So, they went down, washed, and got up again, and Waowao said: "Yawayawa! Lay down so I can paint you, and then you can paint me." Yawayawa laid down, and Waowao, who was a very skillful bird, used many colours - some red ones, some yellow ones, some green ones, and some black and blue ones. He took his colours and painted Yawayawa. When he had finished painting, Yawayawa looked very beautiful...

Orthography Chart

| Are |  | Gapapaiwa |  | English ${ }^{1}$ |  | Tok Pisin |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Phon | Orth | Phon | Orth | Phon | Orth | Phon | Orth |
| p | p | p | p | p | p | p | p |
| b | b | b | b | b | b | b | b |
| m | m | m | m | m | m | m | m |
|  |  | v | v | v | v | v | v |
|  |  |  |  | f | f | f | f |
| t | t | t | t | t | t | t | t |
| d | d | d | d | d | d | d | d |
| n | n | n | n | n | n | n | n |
|  |  |  |  | 1 | 1 | 1 | 1 |
| r | r | r | r | . | r | r | r |
| s | s | s | s | s | s | s | s |
| j | y | j | y | j | y | j | j,y |
| k | k | k | k | k | k | k | k |
| g | g | g | g | g | g | g | g |
|  |  | \% | gh |  |  |  |  |
|  |  |  |  | $\eta$ | ng | $\eta$ | ng |
| w | w,v |  |  | w | w | w | w |
|  |  |  |  | h | h | h | h |
| $\mathrm{k}^{\mathrm{w}}$ | kw | $\mathrm{k}^{\mathrm{w}}$ | kw |  |  |  |  |
| $\mathrm{g}^{\text {w }}$ | gw | $\mathrm{g}^{\text {w }}$ | gw |  |  |  |  |
| i | i | i | i | i: | see | 1 | i |
|  |  | i | ii |  |  |  |  |
| e | e | $\varepsilon$ | e |  | pet | e | e |
| a | a | a | a |  |  | a | a |
| о | o | o | o | o | door | o | o |
| u | u | u | u | u: | too | u | u |

${ }^{1}$ This is not a complete list of English phonemes. Only those relevant to the other languages in the orthography chart have been included. Only one orthographic alternative has been used for each phoneme.

## Bibliography

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[^0]:    ${ }^{1}$ This does not apply when one-syllable CVV stems are reduplicated. For example [a'nenae], 'I'm going', which is underlyingly /anaenae/.
    ${ }^{2}$ Besides the syllable patterns mentioned here there are 4 weakly supported syllable patterns in Are. These are C (m.sim.si.ri 'standing'), VC (am 'your'), CVVC (kaem 'your leg'), VV (au 'my'). A syllabic C is always the phoneme $/ \mathrm{m} /$, and most likely this $/ \mathrm{m} /$ used to be $/ \mathrm{mu} /$. All examples of VC and CVVC have a morpheme break before the last C. All examples of VV contain the vowel combination /au/ which used to be /a-ku/, containing a morpheme break.
    ${ }^{3}$ The last consonant in a closed syllable is always the phoneme $/ \mathrm{m} /$. From related languages one can see that this $/ \mathrm{m} /$ used to be $/ \mathrm{mu} /$.

