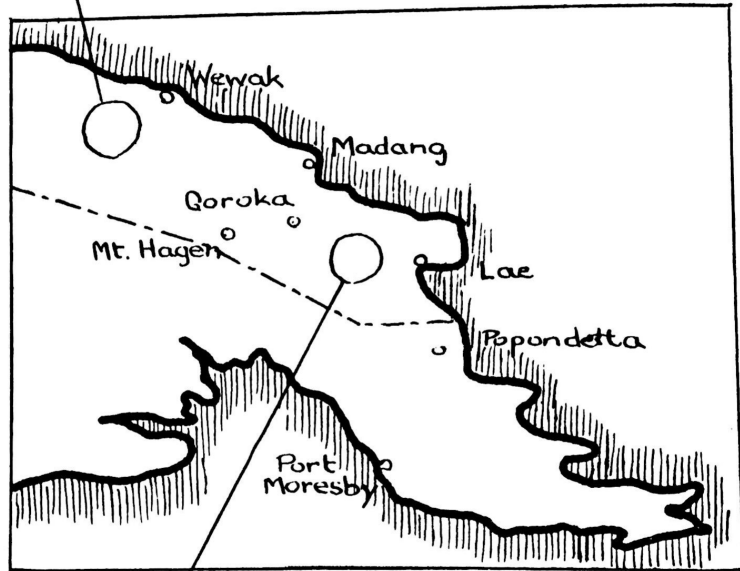
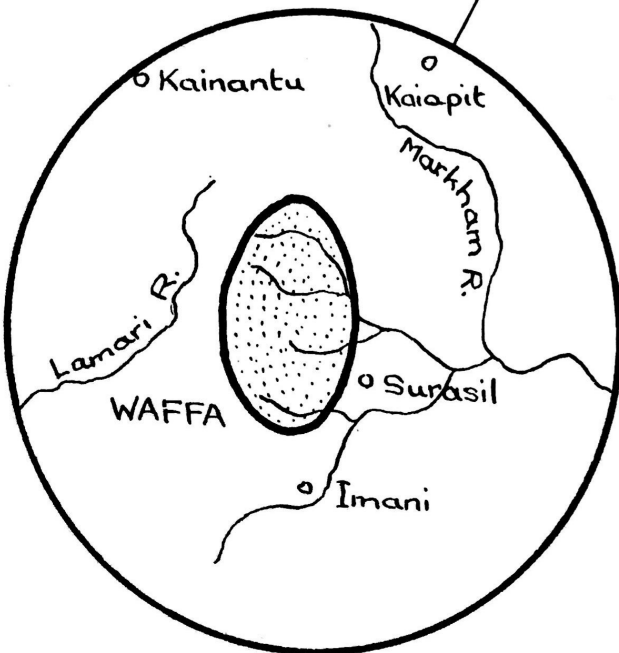


Territory
of
Papua and
New Guinea



LANGUAGE
LOCATION
MAP



THE PHONEMES OF WASHKUK (KWOMA)¹

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0. Introduction

Washkuk is spoken by a group of people numbering about 2500, who inhabit a flood plain and a range of hills rising from the swampland of the middle Sepik river valley. Ambunti, the nearest government post, lies on the eastern border of Washkuk country. The data for this paper were collected by Orneal and Martha Kooyers who lived in the village of Melowai for extended periods between late 1961 and early 1966 for the purpose of learning to speak Washkuk. The present analysis represents a modification of an earlier paper presented to the Summer Institute of Linguistics in 1963. Although many Washkuk speakers contributed to the materials used in this analysis, Buria, a leader in the village of Melowai, supplied most of the information.

1. Inventory of Phonemes

Washkuk has twenty-four consonant phonemes (*Chart 1*) and seven vowel phonemes (*Chart 2*).

Contrastive sets for the vowel phonemes are as follows :

/i e i a u o/ — /mi/ yours, /me/ tree, /mi/ you, /ma/ man, /mu/ foundation, /mo/ crocodile;
and /yi/ sit, /ye/ all, /yi/ cut down, /ya/ sun, /yu/ to scrape coconut meat, /yo/ to serve food.

/ε e i/ — /hεm/ a tree, /hem/ a wasp, /him/ tobacco.

/ε i a/ — /tεm/ garden boundary, /tim/ to cut in two, /tam/ quiver cover.

Contrastive sets for the consonant phonemes are as follows :

/p b m s š r č j y k g ʔ h/ — /pi/ blood, /bi/ sago bark, /mi/ yours, /si/ hers, /ši/ ant, /či/ to plant, /yi/ to sit, /ri/ his, /ki/ pull, /gi/ a palm, /ʔi/ go, /hi/ name, /ji/ to fasten.

1. Laycock (1961 and 1965) and Whiting (1941) have used the term Kwoma in referring to the Washkuk. The term chosen here is that used locally and by the Territorial administration.

CHART 1
Consonants

	Non-labialised:					Labialised:	
	Bilabial	Alveolar	Palatal	Velar	Glottal	Bilabial	Velar
Obstruent, Plain and Voiceless	p	t	č	k	ʔ	pw	kw
Obstruent Prenasalised and Voiced	b	d	j	g		bw	gw
Fricative	v	s	š		h		
Nasal	m	n	ñ			mw	
Liquid	w	r	y				

CHART 2
Vowels

	Front	Central	Back
High	i	ɨ	u
Mid	e		
Low	ɛ	a	o

/m b v t č j w y/ — /mey/ rib, /bey/ egg, /vey/ canoe, /wey/ (an intensifier), /tey/ to sharpen, /čey/ bed, /jey/ paper, /yey/ ancestors.

/t n d/ — /tiki/ to cut bananas, /nika/ louse, /dika/ here.

/n and ñ/ — /win/ ironwood, /wiñ/ a soft wood.

/mw m/ — /mwaya/ a proper name, /maya/ a fish net.

/bw b/ — /bwačuwa/ to speak for, /bačuwa/ to wipe out.

/pw p/ — /pwayi/ a ditch, /payi/ the top plate of a wall.

/kw k/ — /kwow/ a mountain, /kow/ yam.

/gw g/ — /gwaregawa/ a bird, /gaw/ sago stem.

2. Interpretation

2.1 Interpretation of Nonsyllabic Vocoids

The only vocoid sequences which occur in Washkuk are those which include a high front or back vocoid (/i/ and /u/ respectively). In the absence of a clear VV pattern these vocoids are interpreted as consonants /y/ and /w/ when occurring contiguous to a vowel phoneme. Further substantiation of this interpretation may be drawn from the substitution by some speakers of a lateral contoid [l] for the front high vocoid in these positions, e.g. /omahaya/ = ['omahaia ~ 'omahala] *a type of fish*, /yawa/ = ['yawa ~ 'lawa] *come*, /εpey/ = ['εpei ~ 'εpel] *hornbill*.

2.2 Interpretation of Complex Consonantal Sequences

Sequences of nasal plus homorganic stop [mb nd ŋg ndž], stop plus homorganic fricative [tš], and stop or nasal plus labialised release [p-w mbw mw kw ŋgw] are interpreted as single complex consonantal phonemes on the basis of the following evidence : (i) no other consonantal sequences occur word initially; (ii) morpheme boundaries consistently precede the sequences under discussion but never interrupt them; (iii) although single syllable words reveal a syllable pattern of consonant-vowel-consonant (CVC) suggesting that medial consonant clusters should be expected, not even here can clusters be established unambiguously.

The adoption of a unit interpretation of complex consonantal sequences results in much greater over-all simplicity. Syllable structure, phoneme distribution and word formation can be described with less complexity and greater symmetry than would be possible with an interpretation postulating consonant clusters. The greater economy of statement minimizes the expanse of increasing the phoneme inventory.

2.3 Elision of High Vowels

Phonetic sequences of a liquid contiguous to a consonant, of a voiceless fricative before /k/ or /mb/, and of the sequence [nə] occur word medially. These sequences are characteristic of rapid speech and in more deliberate speech become sequences of consonant, high vowel consonant. These sequences are therefore interpreted as contractions rather than phonemic clusters of consonant phonemes. Front and back vowels /i/ and /u/ respectively are elided between the corresponding non-syllabic vocoids /y/, /w/ and /k/. Elsewhere the elided vowel is the central vowel /i/. The specific phonetic sequences and their phonemic interpretation are as follows :

[p-r] /pir/, [kr] /kɪr/, [ŋgr] /gɪr/, [sr] /sir/, [wr] /wir/, [tr] /tir/, [p-mb] /pɪb/, [rə] /rip/, [rk] /rik/, [rŋg] /rig/, [sk] /sik/, [yk] /yik/, [wk] /wuk/, [smb] /sib/.

3. Description of Phonemes

3.1 Consonants

/p/ is a voiceless bilabial obstruent which occurs word initially as a fricative [p̥] and elsewhere as [p] or a stop [p] in free variation.

- /pw/ is a labialised voiceless bilabial obstruent [p̥w] which occurs as [pw] or [p̥w] word medially and [p̥w] elsewhere.
- /b/ is a voiced bilabial stop which can occur prenasalised in all positions, and is in free variation with [b] initially.
- /v/ is a voiced bilabial fricative.
- /t/ and /k/ are alveolar and velar stops respectively, typically voiceless [t] and [k] but freely varying with voiced [d] and [g] intervocalically.
- /kw/ is a labialised voiceless velar stop.
- /d/ and /g/ are prenasalised voiced alveolar and velar stops, [nd] and [ŋg] respectively.
- /gw/ is a labialised prenasalised voiced velar stop [ŋgw].
- /ʔ/ is a glottal stop.
- /č/ is a palatal grooved affricate [tʃ̣], typically voiceless but freely varying with voiced [dʒ̣] intervocalically.
- /j/ is a prenasalised voiced palatal grooved affricate [ndʒ̣].
- /s/ is a voiceless grooved alveolar fricative.
- /š/ is a voiceless grooved alveopalatal fricative.
- /h/ is a voiceless glottal fricative.
- /m/, /n/, and /ɲ/ are voiced bilabial, alveolar and palatal nasals respectively.
- /mw/ is a labialised voiced bilabial nasal.
- /r/ is a voiced alveolar flap [ɾ].
- /y/ and /w/ are voiced non-syllabic high vocoids. They have some friction, palatal with /y/ and bilabial with /w/, word initially, and also some slight friction word medially.

3.2. Vowels

- /i/ is a high close front vocoid with the following allophones : rounded [i̯] preceding /w/ word medially, unrounded [i] and voiceless [i̥] in free variation word finally, and [i] elsewhere.
- /e/ is a front unrounded vocoid with the following allophones : a voiced mid close vocoid [e] before /y/ and non-contiguous to /i/ word medially, a voiced high open vocoid [ɛ] word finally and medially contiguous to /i/, and a voiceless high open vocoid [ɛ̥] in free variation with voiced [ɛ] word finally.
- /ɛ/ is a voiced front unrounded vocoid with the following allophones : a low close, vocoid [œ] preceding nasals and prenasalised stops, and a mid open vocoid [ɛ] elsewhere.
- /i/ is a high close central vocoid with the following allophones : a voiced rounded vocoid [ɨ̯] before /w/ word medially, a voiced unrounded vocoid [i] elsewhere in word medial and final positions, and [i̥] a voiceless unrounded vocoid in free variation with [i] word finally.

- /a/ is a central unrounded vocoid with the following allophones : a voiced mid open vocoid [ʌ] which tends to occur word medially preceding prenasalised velar and palatal consonants, a voiced low vocoid [a] which occurs elsewhere word medially and finally, and a voiceless low vocoid [A] which occurs in free variation with [a] word finally.
- /u/ is a high close back rounded vocoid with the following allophones : voiced [u] word medially and in free variation with voiceless [U] word finally.
- /o/ is a back rounded vocoid with the following allophones : a voiced low vocoid [ɔ] word medially before /y/ and non-contiguous to /i/, a voiced mid vocoid [o] elsewhere in word medial and final positions, and a voiceless mid vocoid [O] in free variation with [o] word finally.

4. Distribution

Phonemes are restricted in their distribution by position within the syllable and by the position of the syllable within the word. A syllable consists of a consonant onset, a vowel nucleus and an optional consonantal coda. These two syllable patterns (CV and CVC) characterise the structure of Washkuk words. Each word consists of either a single syllable (either CV or CVC) or a sequence of CV syllables with or without a final CVC syllable. This structure may be expressed by the following formula : $wd = \{CV^n + (CVC); CVC\}$ where parentheses indicate an optional item and braces indicate alternative choices. Non-phonemic stress falls on the initial syllable of each word.

All vowels may occur as syllable nuclei, with the exception that /ɛ/ does not occur as the syllable nucleus of a word final open syllable. All consonants may occur as syllable onsets and all consonants except prenasalised stops /b d j g/, labialised consonants /pw bw mw kw gw/ and glottal consonants /h ʔ/ may occur as codas.

5. Orthography

The following phonemes are represented in the standard orthography by other than their phonemic symbolisation : /ʔ/ is unmarked so that an initial vowel and a medial sequence of diverse vowels are to be interpreted as ʔV and VʔV respectively; /č/, /š/ and /ñ/ are represented by *ch*, *sh* and *ny* respectively; /ɛ/ and /i/ are represented by *ee* and *ii* respectively.

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