

The origins of non-back (front) rounded vowels in Ahamb (Vanuatu)

Tihomir Rangelov

[tixo'mir 'ranʒelof]

Department of Linguistic and Cultural Evolution

Max Planck Institute for Evolutionary Anthropology (Leipzig)

12th Conference on Oceanic Linguistics (COOL)

@ University of French Polynesia – Sept 3-9, 2022



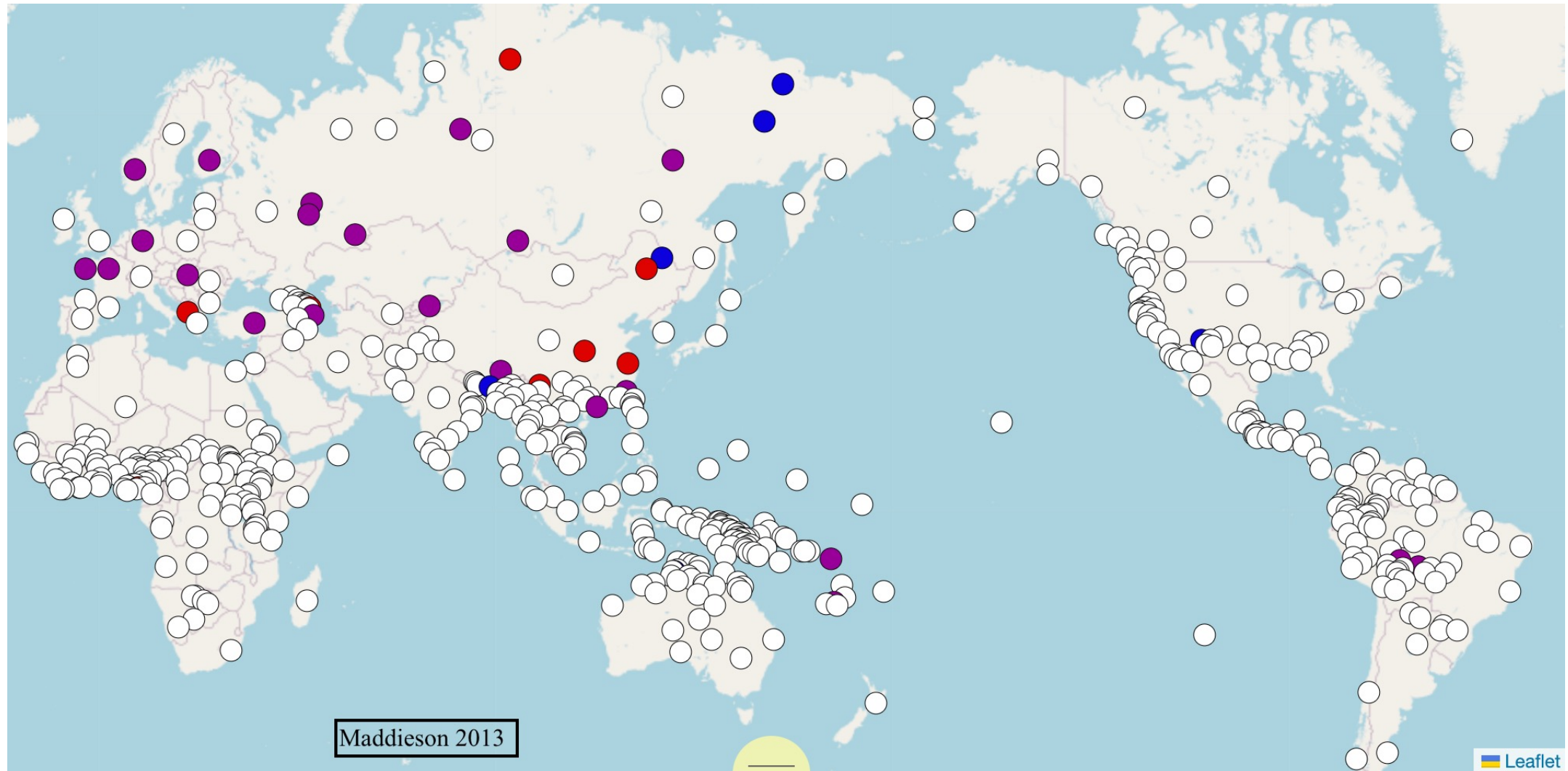
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Front rounded vowels

(ö ü)

Les voyelles antérieures arrondies



Proto-Oceanic had five vowels

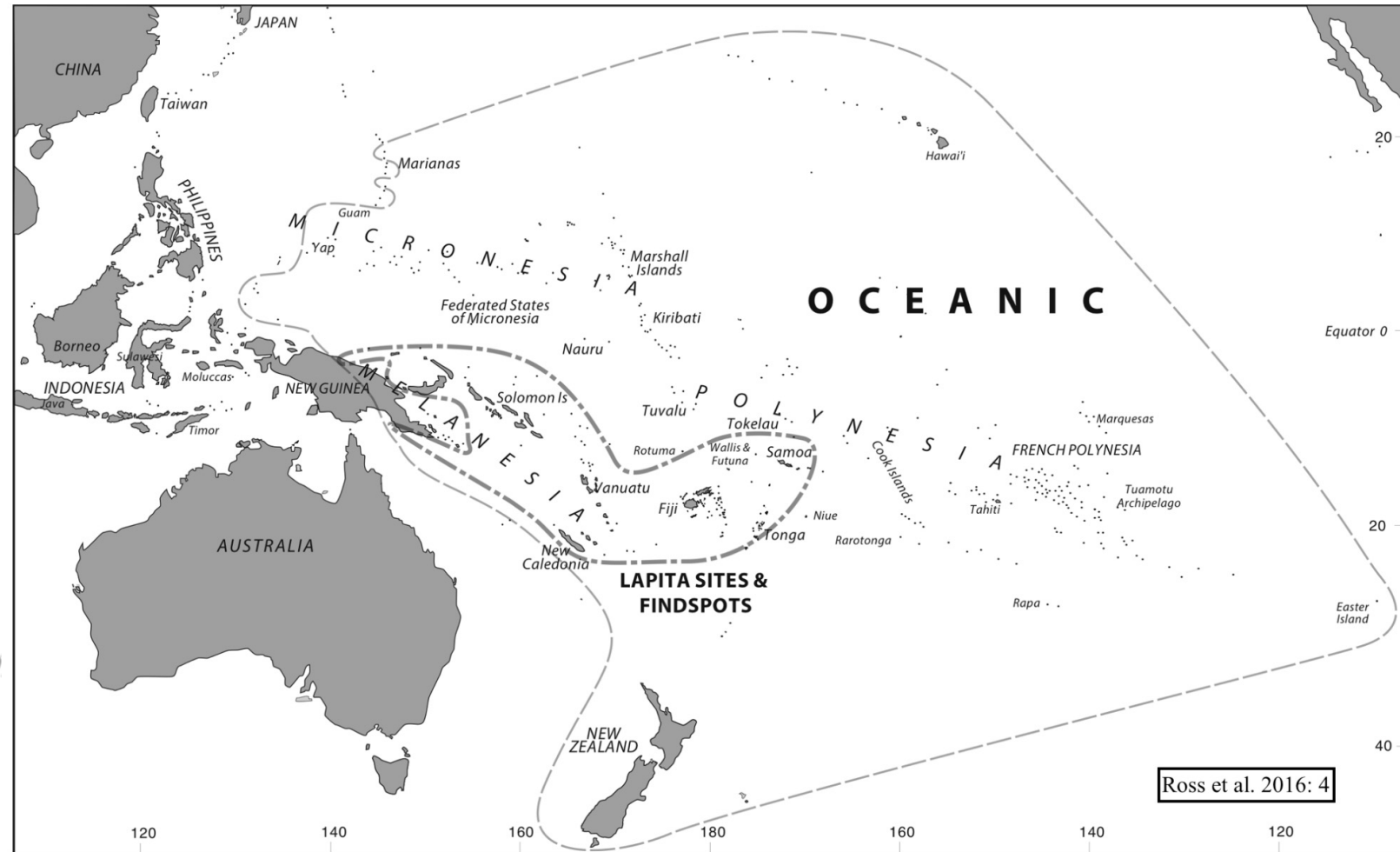
Le proto-océanien possédait 5 voyelles

Table 1 Reconstructed paradigm of POc phonemes

*p ^w	*p	*t	*c	*k	*k ^w	*q
*b ^w	*b	*d	*j	*g		
		*s				
*m ^w	*m	*n	*ñ	*ŋ		
		*r				*R
		*dr				
		*l				
*w						*y
	*i					*u
	*e					*o
		*a				

(Ross et al. 2016: 19)

Ross et al. 2016: 19

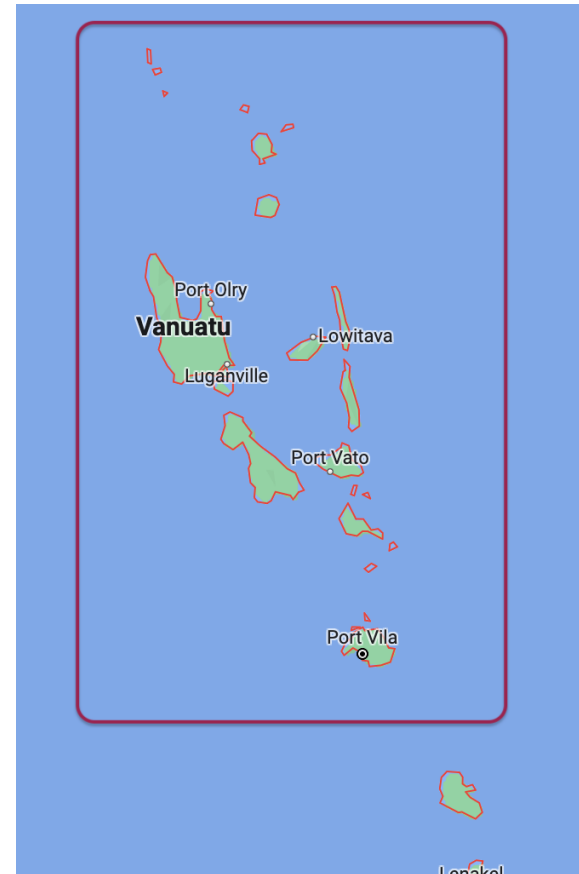


Ross et al. 2016: 4

Proto North Central Vanuatu (PNCV)

Le proto-nord-centre-Vanuatu

- same five vowels as in POc
(Clark 2009: 15-16)
- les cinq mêmes voyelles que
dans POc



In this talk:

- The Ahamb language
- Existing hypotheses on the emergence of front rounded vowels in other Vanuatu languages
- The origins of ö, ü in Ahamb
 - phonotactics
 - phonemic status, functional load and salience
 - historical analysis
 - allophony
- One possible pathway for the expansion of the vowel inventories of North Central Vanuatu languages

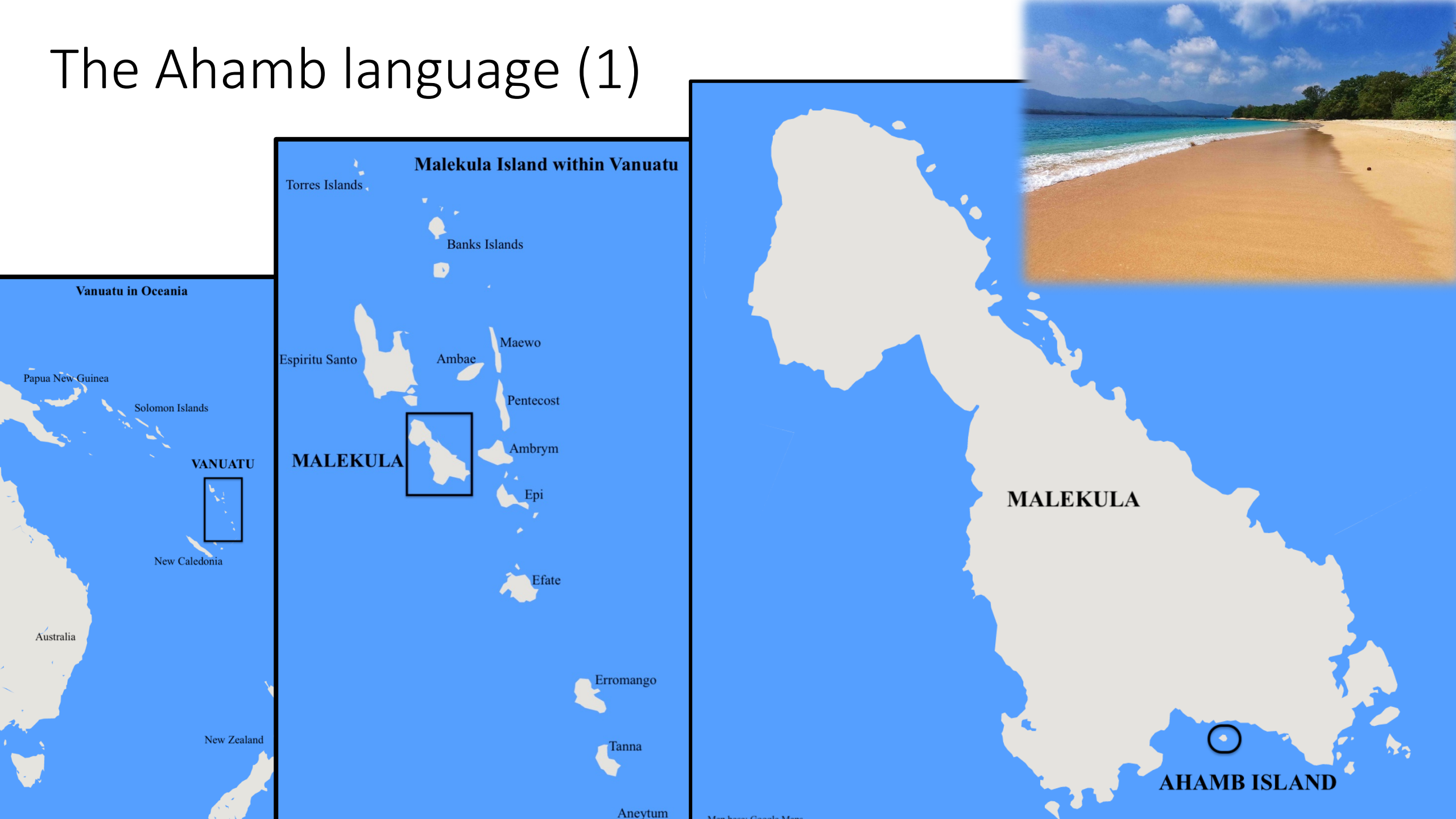
Aujourd'hui:

- l'ahamb
- Hypothèses existantes sur l'émergence des voyelles arrondies antérieures dans les langues du Vanuatu
- Les origines de ö, ü en Ahamb
 - phonotactique
 - statut phonémique, charge fonctionnelle et saillance
 - analyse historique
 - allophonie
- Une voie possible pour l'expansion des inventaires de voyelles des langues du Vanuatu du Centre-Nord

The Ahamb language



The Ahamb language (1)



The Ahamb language (2)

- Approx. 950 speakers
- Endangered language (Rangelov, Bratrud & Barbour: 2019)
- Austronesian
 - Oceanic
 - North and Central Vanuatu
 - Malekula
 - Eastern Malekula (Lynch 2016)
 - Southeast Malekula



Ahamb's phoneme inventory (Rangelov 2020)

Les phonèmes de l'ahamb

	Front		Back	
High	i	y		u
Mid	e	ø	ə	o
Low		a		

		labial	coronal	palatal	velar	labio-velar
Nasals		m	n		ŋ	
Plosives	Plain	p	t		k	
	Prenasalised	b	d		g	
Fricatives		v	s		x	
Affricates			tʃ			
Trills	Plain	ʀ	r			
	Prenasalised	ʙ	ɖ			
Lateral approximant			l			
Central approximants				j		w

Existing hypotheses
on the origins of
front rounded vowels



Hypothèses
existantes sur
l'émergence des
voyelles arrondies
antérieures

François (2005):

17 Northern Vanuatu (Torba province) languages

- emphasis on **metaphony** – “any type of **assimilation** between non-adjacent vowels in a word” (similar to umlaut, vowel harmony) (Trask 1996:221)
 - e.g. POc *paRi ‘stingray’ > *βæ̃r* in Vurës
 - followed by final vowel loss
 - first vowel was usually stressed
- also reports a few cases of vowel **dissimilation**:
 - *o > ø: POc *motus ‘island’ > *ŋm^wøt* ‘bush’ (in Vurës)
- assimilation ou dissimilation de traits d'une voyelle finale à une voyelle précédente, après quoi la voyelle finale a été perdue

VOWEL INVENTORY

i e a ə ɔ ʊ

i e ɛ a ə ɔ ʊ

+ ĩ ẽ ã ə̃ ɔ̃ ʊ̃

i e ɛ æ a ɔ ʊ

i e ɛ a ə̃ ɔ ʊ + ĩ ẽ

i i ɛ a ɔ ʊ

i i ɛ a ɔ ʊ

i i ɛ a ɒ æ ø ɔ ʊ

i i ɛ a ɔ ʊ

i i ɛ a ə̃ ø̃ ü̃ ɔ ʊ + ĩ ã

i i ɛ a ɔ ʊ

i e a ʊ

i i ɛ a ɔ ʊ

i i ɛ a ɔ ʊ + a:

i i ɛ a ɔ ʊ + ɛ̃ ã

i i ɛ a ɔ ʊ +

i: ɪ: ɛ: a: ɔ: ʊ: u:

i i ɛ æ a ɔ ʊ +

i: ɪ: ɛ: æ: a: ɔ: ʊ: u:

i i ɛ a ə̃ ʊ̃ ɔ̃ ʊ̃ + ɛ̃ ã ɔ̃ ʊ̃

Clark (2009:32): Sakao (Espiritu Santo, Vanuatu)

- Stressed vowel shifts + final vowel loss

	<i>*i *u</i>	<i>*e</i>	<i>*o</i>	<i>*a</i>
before <i>*i *u</i>	<i>ü</i>	<i>ö</i>		<i>e</i>
before <i>*e *a *o</i>	<i>ö</i>	<i>å</i>	<i>o</i>	<i>a</i>

- Assimilation
 - **bóni* > *vön* 'stink'
- Dissimilation
 - **bútu* > *vüd* 'deaf'

Krifka (2017): Daakie (Ambrym, Vanuatu): coronal/labial consonants => vowel fronting

- **Allophonic** fronting of short back rounded vowels when adjacent to coronal/labial consonants.
- Typologically somewhat common: coronal (alveolar) place = fronted tongue body => fronting of vowels (Flemming 2003)
- “Coarticulatory **simplification** of production of back vowels by assimilation of tongue dorsum position to preceding vowel. Blocked by following velar consonants, which have retracting effect on dorsum.”
- ö, ü sont des allophones de o, u entre les consonnes coronales/labiales.
- Dans les consonnes coronales, la langue est à l'avant et peut entraîner un frontage de la voyelle.

Minimal pairs

ö ~ o

növ 'burn'

ö ~ e

mör 'be ripe'

ö ~ a

növ 'burn'

ö ~ ə

löv 'pour'

ü ~ i

vütʃ 'banana'

ü ~ u

pus 'ask'

ü ~ ə

vütʃ 'banana'

ö ~ ü

mörmör 'be ripe'

Pairs minimales

nov 'think'

mer 'black'

nav 'be enough'

löv 'pull'

vitʃ 'dig'

püs 'whistle'

vətʃ 'to prune'

mürmür 'be disgusting'

ö, ü are marginal phonemes in Ahamb

ö, ü sont des phonèmes marginaux dans l'ahamb

- 30 words with ö, 50 words with ü in a 2500-word list
- Low functional load – low lexical opposition (few minimal pairs) and high lexical predictability (restricted distribution) (Labov 1994)
- Their salience is – at least partially – supported by a couple of high frequency vocabulary items:
 - *na-vütʃ* 'banana'
 - *lön* 'in, at, on'
- ö, ü ne sont pas importants pour faire de nombreuses distinctions dans l'ahamb

Historical analysis

(PNCV reconstructions from Clark 2009)

- ***o > ö, before *u/o**

*tobu 'swell' > *tö^mB*

*nobu 'deep' > *nö^mB*

*ʔatolu 'egg' > *mav-drör*

*lolo(-na) 'inside' > *lön* 'in, at, on'

*loso-vi 'wash' > *lös*

- However:

*na-tovu 'sugarcane' > *na-rov*

- ***u(o) > ü, before *u/i**

*tunu 'hot' > *tün* 'hurt; shine'

*tolu 'three' > *rür*

*susu 'suck, breastfeed' > *süs*

*bu(nu)si 'see' > *^mBüns*

*vuti 'banana' > *na-vütʃ*

- However:

*butu 'deaf' > *^mBut*

Vowel shifts (mostly dissimilation, some assimilation)

Coronal/labial environment in both proto-forms and synchronic forms

e/ö allophony in subject indexes

Neutral subject indexes
-a-

	SG	DU	PL
1INCL	<i>na-</i>	<i>dra(ra)-</i>	<i>drata-</i>
1EXCL	---	<i>mara-</i>	<i>mata-</i>
2	<i>ka-/ga-</i>	<i>mra-</i>	<i>mta-</i>
3	<i>nga-</i>	<i>(a)ra-</i>	<i>(a)ta-</i>

Sequential event subject indexes
-e-

	SG	DU	PL
1INCL	<i>ne-</i>	<i>dre-</i>	<i>drete-</i>
1EXCL	---	<i>mere-</i>	<i>mete-</i>
2	<i>ke-/ge-</i>	<i>mre-</i>	<i>mte-</i>
3	<i>nge-</i>	<i>(a)re-</i>	<i>(a)te-</i>

Sequential event subject indexes + *-r* 'SBQT'
-e/ö- in free variation

	SG	DU	PL
1INCL	<i>nö-r</i>	N/A	<i>drötö-r</i>
1EXCL	---	N/A	<i>matö-r</i>
2	N/A	N/A	<i>mtö-r</i>
3	N/A	<i>(a)rö-r</i>	<i>atö-r</i>

Also: *lus* ~ *lüs* 'to lose' (borrowing)

The coronal(/labial?) consonant environment alone is enough to support the emergence and persistence of ö, ü
L'environnement consonantique coronal/labial suffit à soutenir l'émergence et la persistance de ö, ü

Discussion

- Diachronically, the expansion of Ahamb's vowel inventory to include ö, ü appears to have been partially driven by vowel dissimilation/assimilation processes and final vowel loss
- Dissimilation is more difficult to explain than assimilation. The coronal/labial (non-velar) consonant environment likely played a major role in the process
- There is an articulatory motivation for coronal consonants to promote vowel fronting – one of the adjacent vowels is always coronal (no examples with two labial consonants)
 - velar consonants would block fronting (cf. Krifka 2017)
- The consonant environment has played a role in the past and continues to be an important factor for the persistence of ö, ü in Ahamb, despite their low functional load
- Identity attachment? (the “let's be different” effect, cf. Krifka 2017; Meyerhof 2017 on shibboleths with front rounded vowels in Nkep; Rangelov, Walworth & Barbour 2022 on identity attachment to bilabial trills on Malekula)
- ö, ü ont émergé en l'ahamb à cause de la dissimilation/assimilation des voyelles et à cause des consonnes coronales/labiales adjacentes.
- Une consonne coronale et l'absence de consonnes vélaires est une condition suffisante.
- Les facteurs sociaux (attachement identitaire) ont-ils joué un rôle?

Beyond Ahamb//Future work

- Front rounded vowels in other Malekula languages (Charpentier 1982; Healey 2013; Williams 2019; Pearce 2015; Barbour 2012; Crowley 1998)
- Emae (Polynesian outlier) (coming up at 11 am, stay tuned!)
- Fagauvea (Polynesian outlier, New Caledonia) has front rounded vowels that likely emerged due to contact with laai (Ozanne-Rivierre 1994)

Acknowledgements

- The Ahamb community
- DLCE @ MPI-EVA
- Endangered Languages Documentation Programme
- Vanuatu Cultural Centre



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