



Angus McIntosh Centre
for Historical Linguistics

Loanword adaptation in nineteenth-century Yahgan

Bridges between Bristol
and Tierra del Fuego



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HiSoN Conference

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THE UNIVERSITY
of EDINBURGH

Abuela Cristina

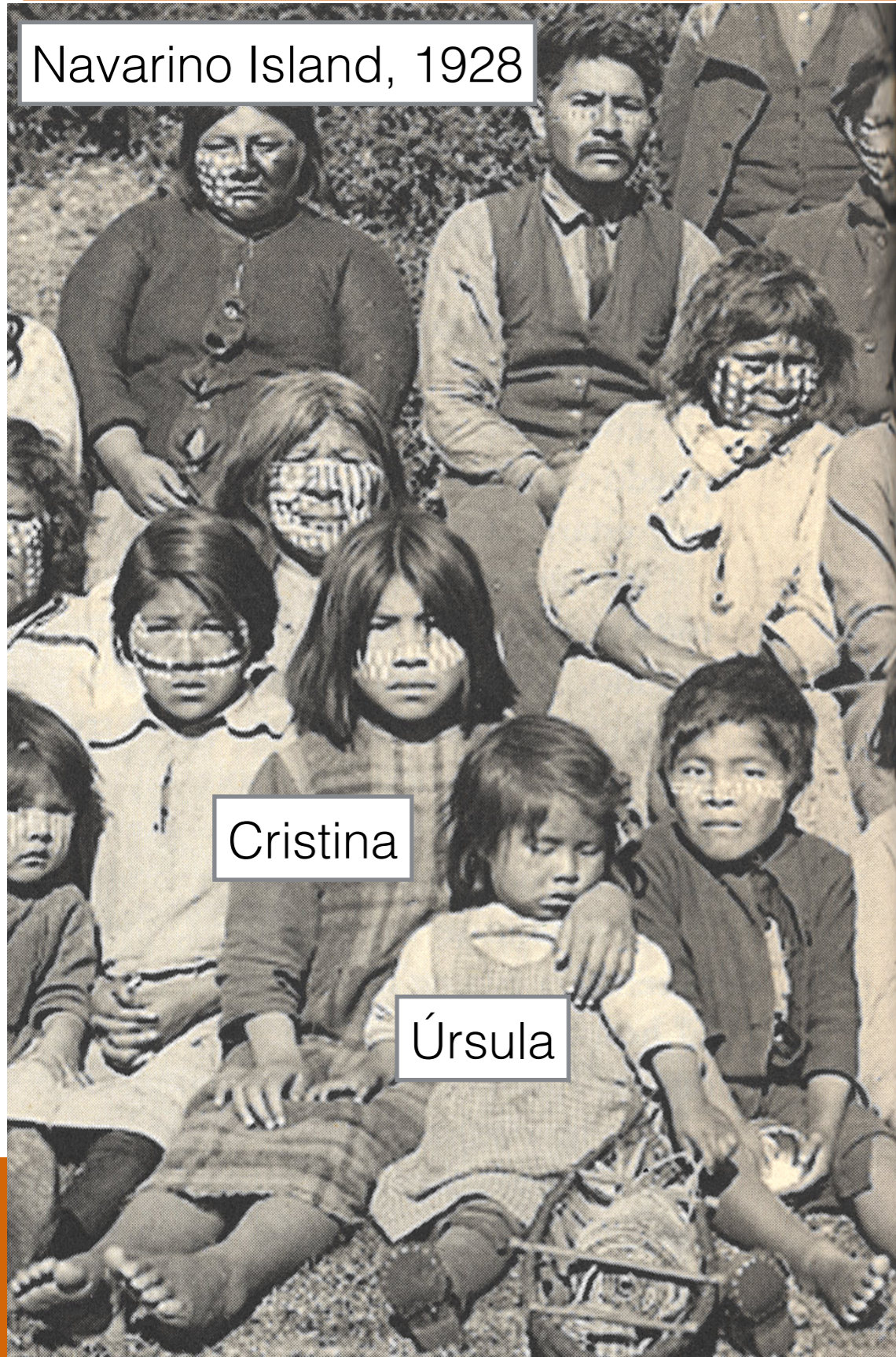
- On 16 February 2022, aged 93, Cristina Calderón died in Punta Arenas, Chile, due to complications related to Covid-19
- She was the last first-language speaker of Yahgan
- The language is now considered dormant



Photo: Oliver Vogel

Abuela Cristina

Navarino Island, 1928



Cristina

Úrsula

Cristina Calderón 1928-2022



to: Oliver Vogel

Cristina

Úrsula

c. 1990

The Fuegian Languages

- As far as we can tell, Yahgan is an isolate
- Other Fuegian languages belong to small families, such as:
 - Chon:
 - Selk'nam (Ona)
 - Haush (Manek'enk)
 - Tehuelche (Aonekkenk)
 - Teushen
 - Alakaluf
 - Kawesqar
 - Southern Alakaluf



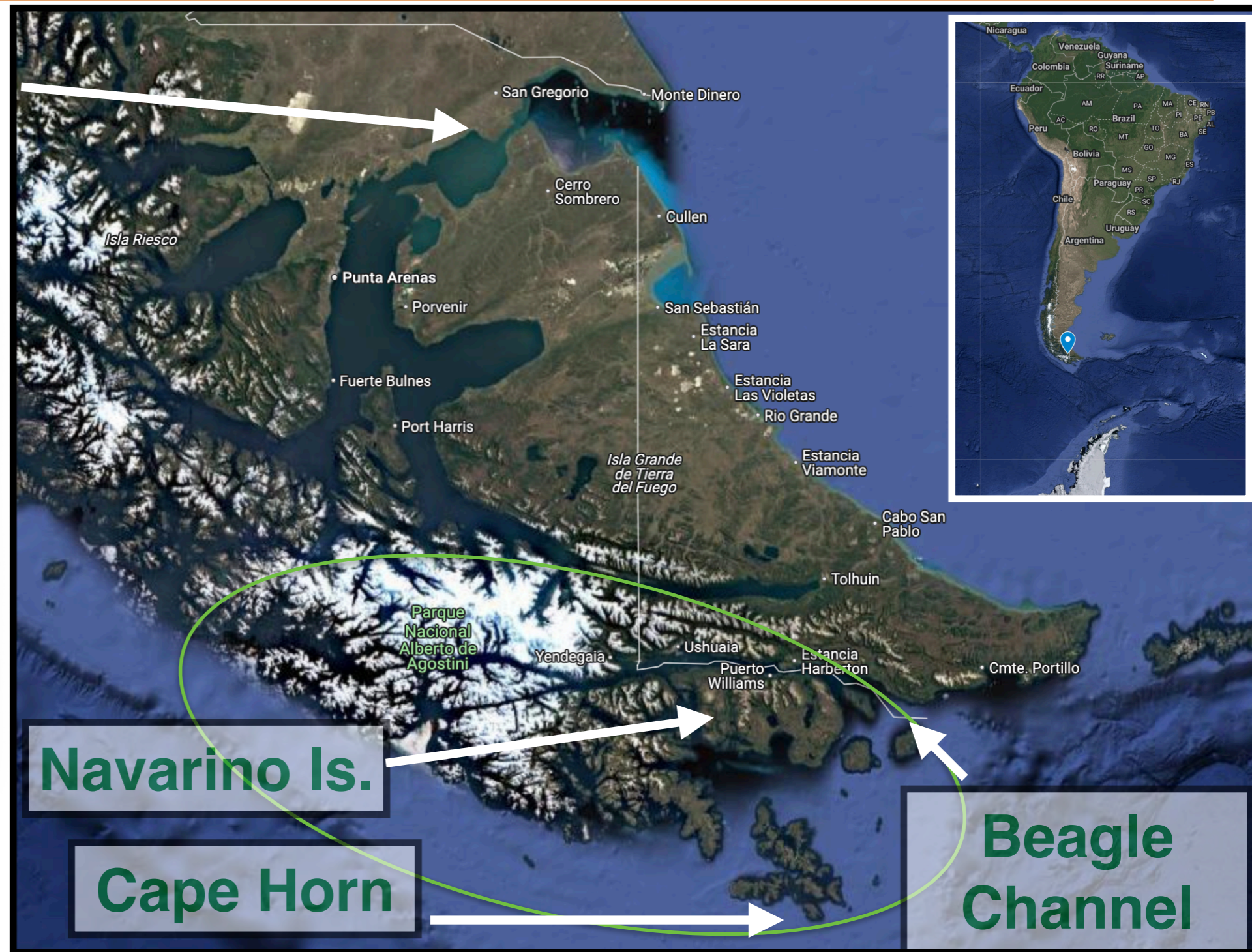
Adelaar & Muysken 2004, p.551



The Yahgan people and their language

Straits of Magellan

The Yahgan people's traditional homeland spans from the Southern Coast of the Main Island of Tierra del Fuego (north shore of the Beagle Channel) to Cape Horn, centred around Navarino Island



Navarino Is.

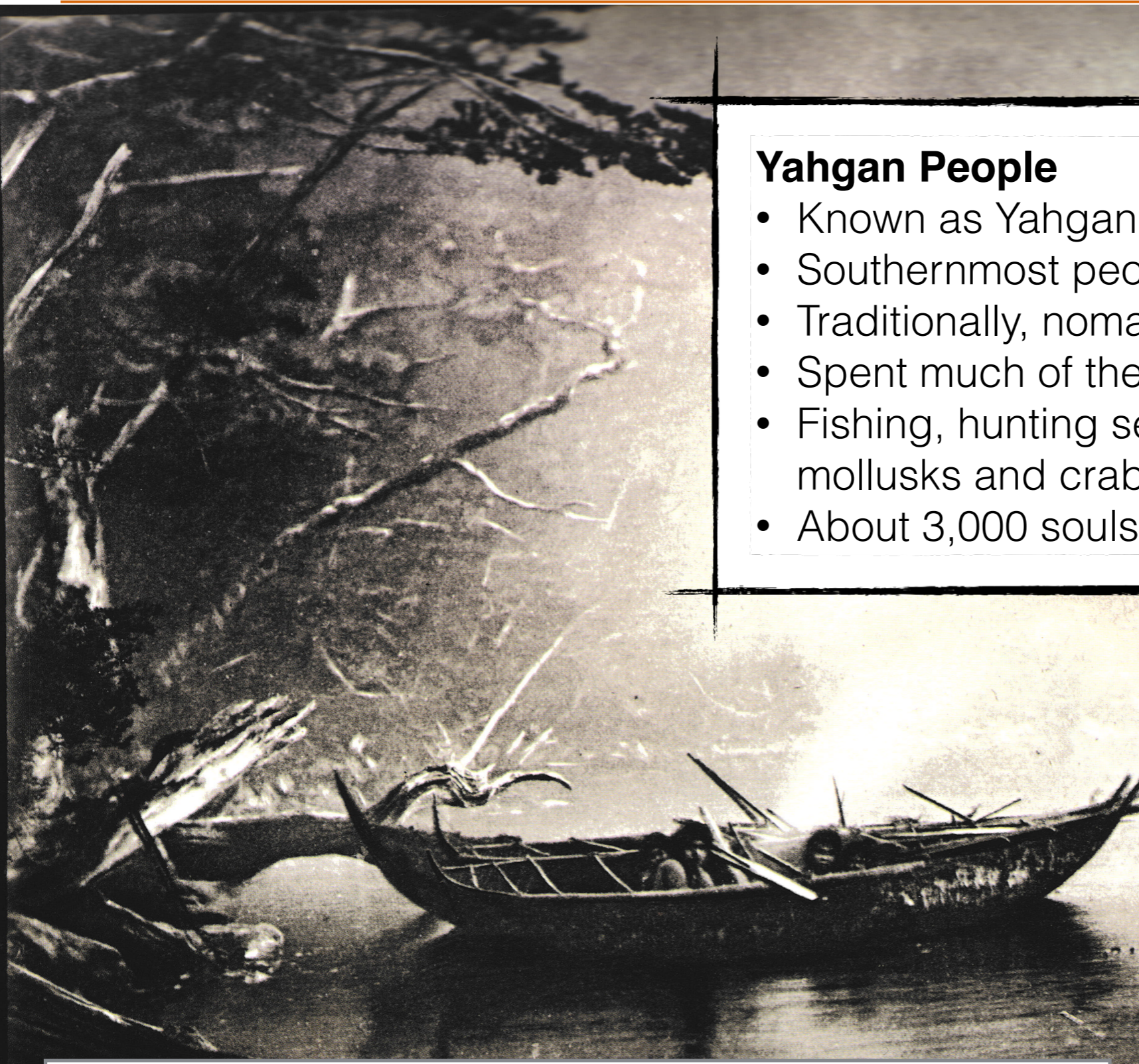
Cape Horn

Beagle Channel

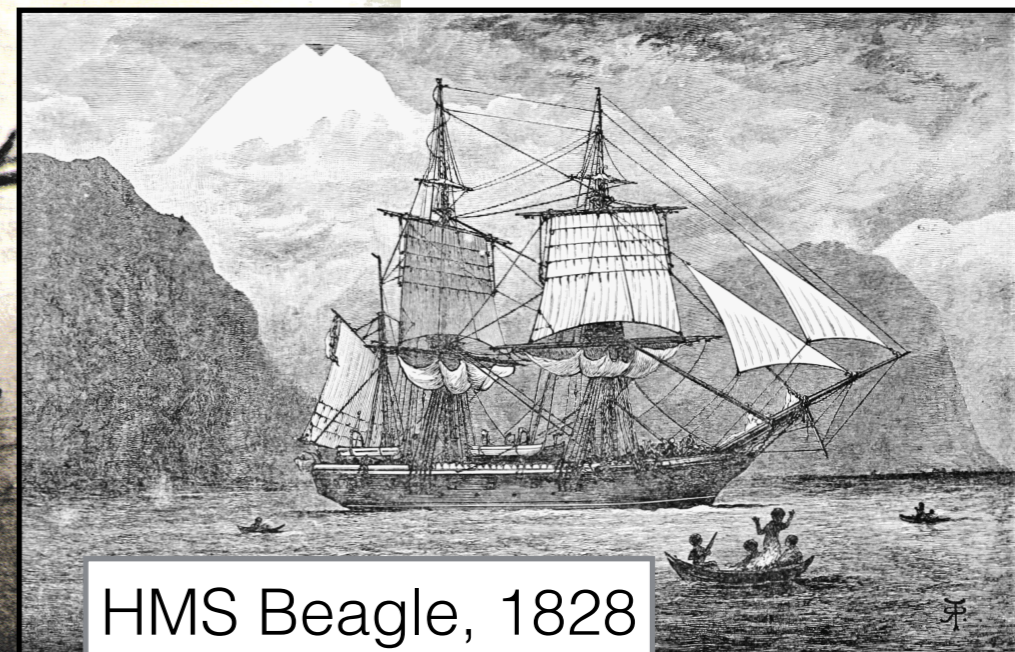
The Yahgan people and their language

Yahgan People

- Known as Yahgan, Yagán, Yamana or Tekenica
- Southernmost people on Earth
- Traditionally, nomadic hunter-gatherers
- Spent much of their lives on bark canoes
- Fishing, hunting sea-lions and diving for mollusks and crabs
- About 3,000 souls estimated by Darwin in 1831



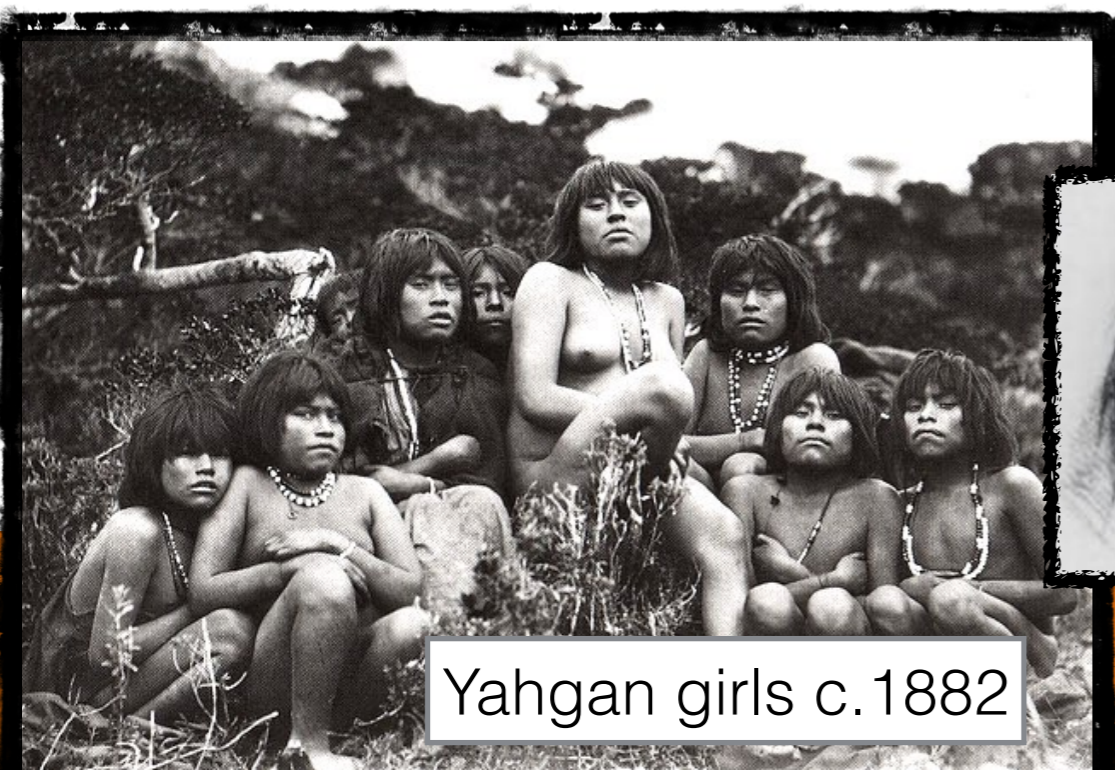
A Yahgan family in their canoe, Beagle Chanel c. 1890



HMS Beagle, 1828

The Yahgan people and their language

- Evidence for human habitation on Tierra del Fuego at least 12,500 years old
- Contact with Europeans begins with Magellan's circumnavigation (1520)
- In 1830, Captain FitzRoy took four Yahgan hostages (incl. Jemmy Button) back to England during the first voyage of the Beagle. The survivors were returned in 1832, in the Beagle's second voyage (Darwin aboard)
- Anglican Missionaries made several attempts at establishing themselves on Tierra del Fuego. They were unsuccessful until 1869.



Yahgan girls c.1882



Orundellico
(Jemmy Button)

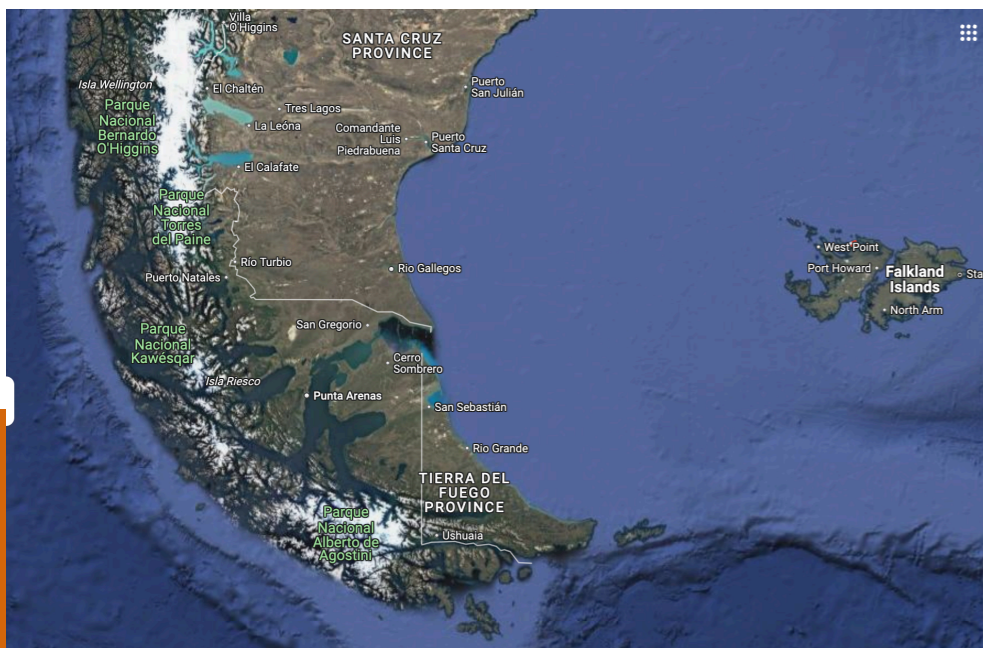


Athlinata, Yaélangoukipa
and kids c.1882

The South American Missionary Society



- Originally the *Patagonian Missionary Society*
- Anglican group, founded in Brighton in 1844 by Rev. Allen Gardiner
- On his two missions, the Yahgan rejected Gardiner's incursions and his team eventually died of starvation, awaiting a supply ship
- In 1854, George P. Despard (of Bristol!) organised a SAMS settlement on Keppel Island (Isla Vigía) in the Falklands (Malvinas)
- In 1856, he brought his family, incl. adoptive son Thomas Bridges, age 13
- Soon, a number of Yahgan people were brought to the mission at Keppel
- In 1859, new attempts were made on TdF, leading to the massacre at Wulaia Bay, where eight missionaries were killed by the Yahgan

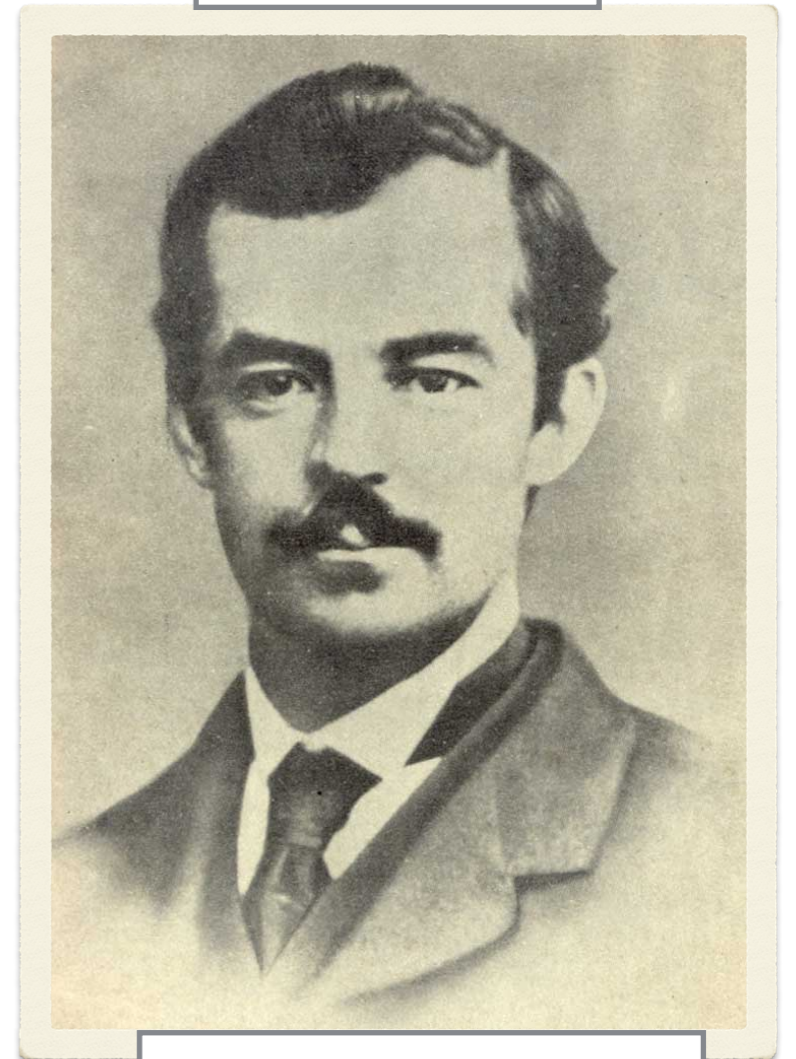


Thomas Bridges

- Bridges, it appears, was an orphan, found alone at age of two or three around Bristol's *bridges*
- Adopted by Despard and privately educated, he came with the family to the Falklands in 1856
- He became a proficient speaker of Yahgan, living closely with those at Keppel Island
- Following the Wulaia Massacre, Despard took his family back to England in 1861, but Bridges, age 18, remained
- Gradually he made inroads with the people and in 1869, a first mission 'successful' was set up at Ushuaia



Bristol c. 1840



Rev. Thomas Bridges
(~1842-1898)

'Our unfortunate friends'

- Bridge's flock quickly dwindled
- The main cause were infectious diseases, and alcohol-related drownings and violence
- By 1906, the Yahgan numbered about 170



Lekutaia Le Kipa



Bridges at Ushuaia, with Yahgan kids

The last of us are dying and we cannot bear forth our families or fill our land with Yahgans

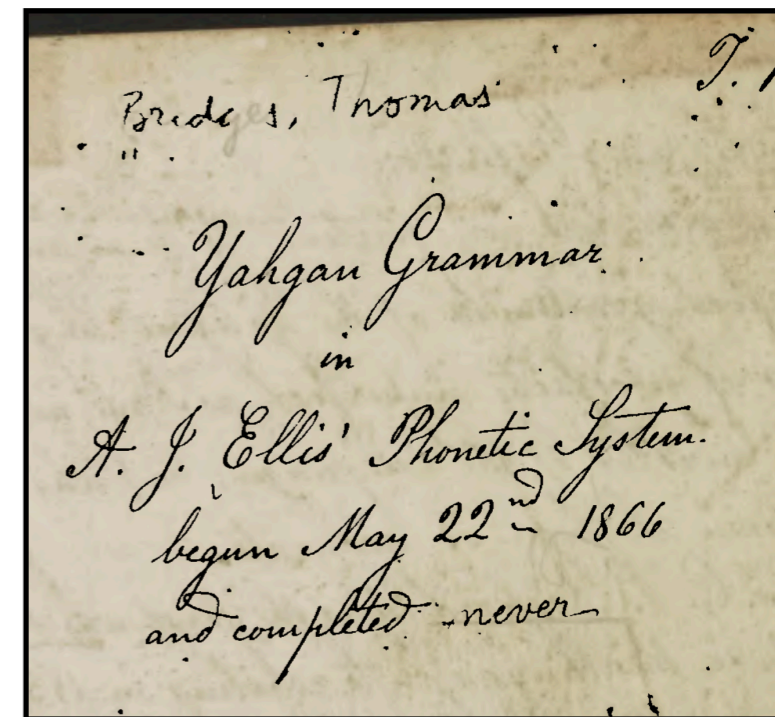
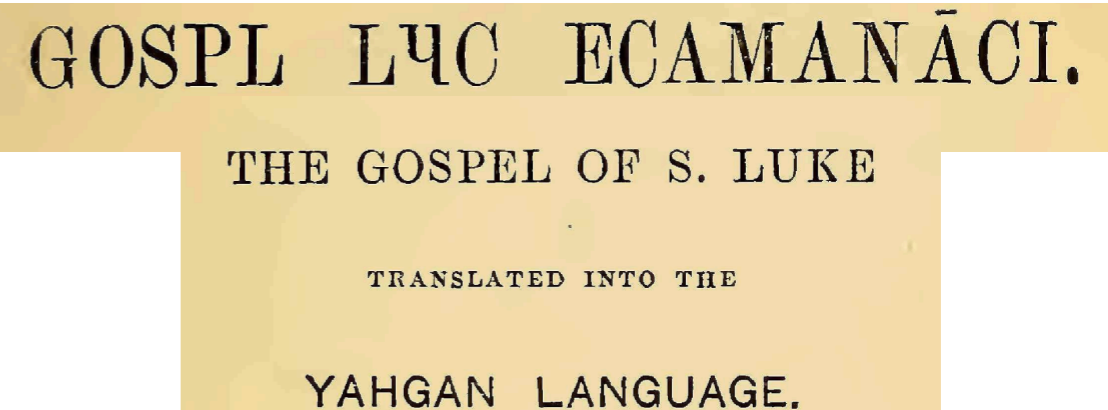
Lekutaia Le Kipa
'Rosa Yagán' (1981)

A linguistically versatile community

- The Yahgan had ancestral relations with the **Selk'nam** and **Alakaluf** peoples and their languages
- In the late 19th century, however, the main contact language became **English**
- Sailors and prospectors from many countries were to be found around the southern straits. **Serbo-Croatian** ('Yugoslavian') was acquired by some Yahgan
- **Italian** Salesian missionaries operated in the area.
- **German** and **French** scientific teams spent long periods with the Yahgan
- Around the turn of the 20th century Tierra del Fuego was incorporated and settled by Argentina and Chile, bringing in **Spanish**
- Most 20c Yahgan speakers were trilingual in **Yahgan, English** and **Spanish**

History of documentation: 19th Century

- Almost all early materials can be traced to Bridges
- Supported by the SAMS he published translations from the New Testament
 - Gospel of St Luke (1881)
 - Acts of the Apostles (1883)
 - Gospel of St John (1886)
- In 1894 he published "A few notes on the structure of Yahgan". *Journal of the Anthropological Institute of Great Britain and Ireland*, 23, pp. 53–80.
- A 32,000-entry Yahgan-English dictionary was published from his notes in 1933
- An unpublished grammar survives in the Library of Congress



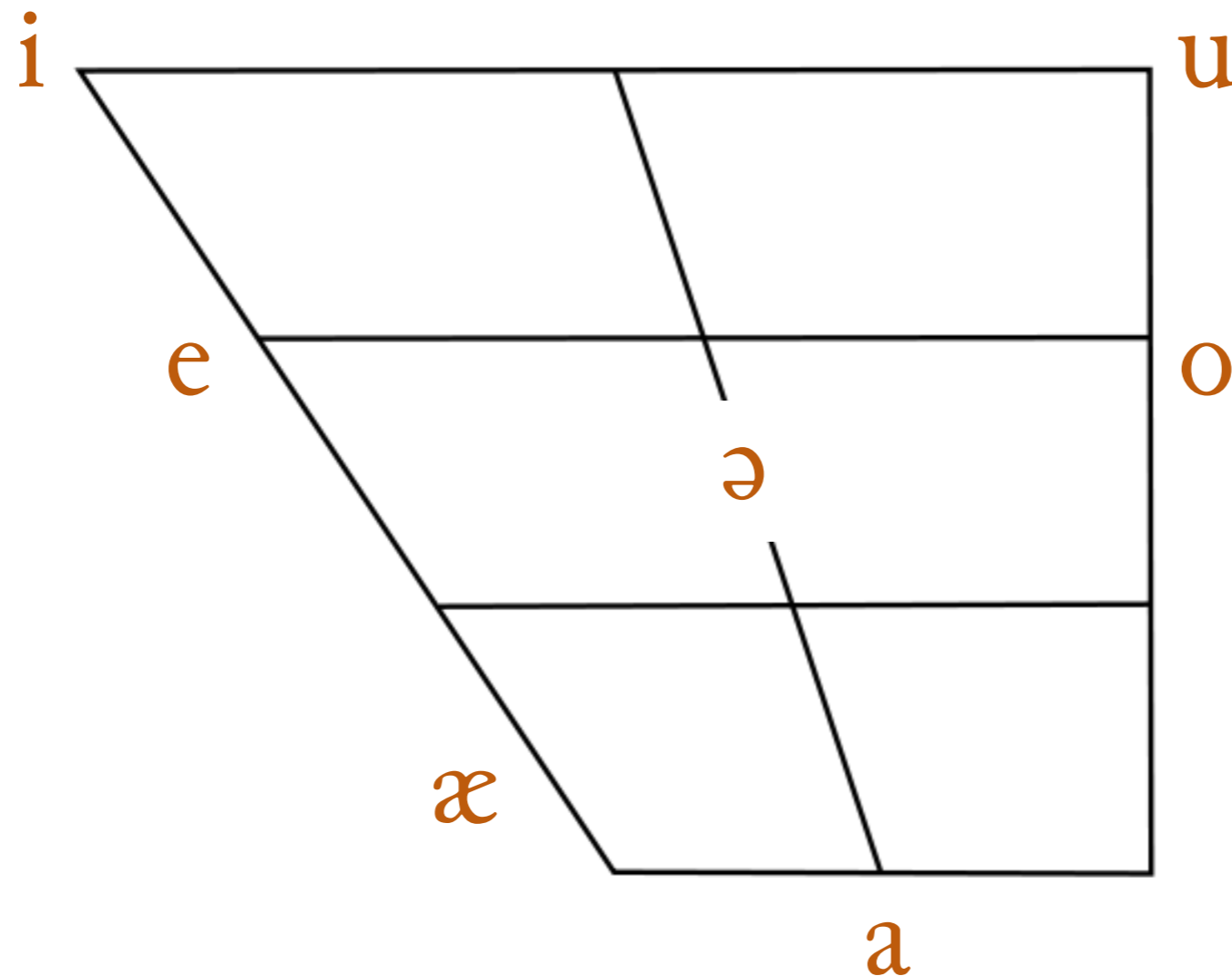
History of documentation: 20th Century

- Aguilera Faúndez, Óscar (2000): "En torno a la estructura fonológica del yagán. Fonología de la palabra". *Onomazein*, Santiago, vol. 5, pp. 233–241.
- Golbert de Goodbar, Perla (1977): "Yagan I. Las partes de la oración". *Vicus*, Amsterdam, vol. 1, pp. 5–60.
- Golbert de Goodbar, Perla (1978): "Yagan II. Morfología nominal". *Vicus*, Amsterdam, vol. 2, pp. 87–101.
- Guerra Eissmann, Ana M. (1990): "Esbozo fonológico del yagán", en *Actas del Octavo Seminario Nacional de Investigación y Enseñanza de la Lingüística*. Santiago: U. de Chile y Sociedad Chilena de Lingüística, vol. V, pp. 88–93.
- Guerra Eissmann, Ana M. (1992): "Las fluctuaciones de fonemas en el yagán". *Revista de Lingüística Teórica y Aplicada*, 30, pp. 171–182.
- Salas, Adalberto, y Valencia, Alba (1990): "El fonetismo del yámana o yagán. Una nota en lingüística de salvataje". *Revista de Lingüística Teórica y Aplicada*, Concepción, vol. 28, pp. 147–169.

Yahgan historical linguistics?

- Why attempt this at all?
 - Test the robustness of the field (and expand its empirical scope)
 - Validate the remaining community
 - Understand the prehistory of the Americas
- Problems of reliability
 - One (non-native) source for the documentation of 19c Yahgan
 - A small set of elderly consultants for the contemporary data
- Questions
 - What is the Yahgan vocalic system in each period
 - Can evidence from English loanwords help elucidate the matter?

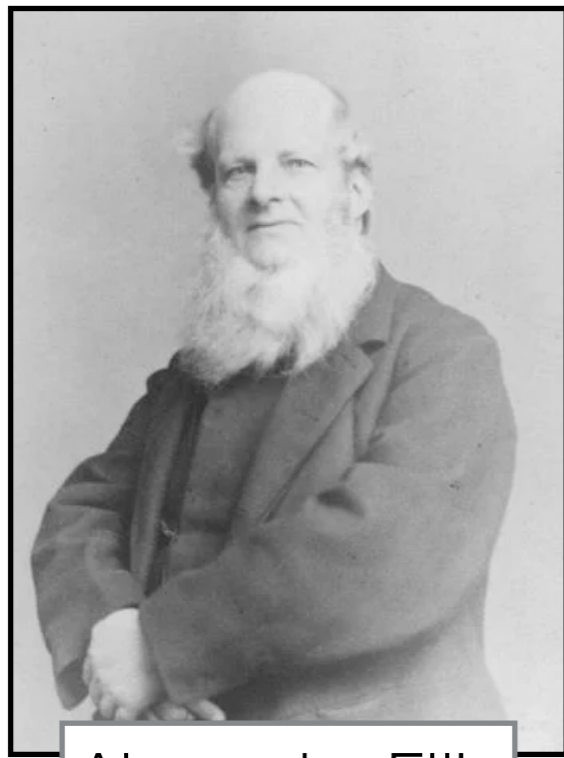
20th century vowels (Salas & Valencia 1990; Poblete & Salas 1999)



- Traditional phonemic analysis. Data from Cristina and Úrsula Calderón
- Aguilera (2000) reaches the same conclusions after working with both women

Bridge's system

- Based on A. J. Ellis' 'Phonotypic Alphabet'
- Developed with Isaac Pitman for the teaching of English
- A precursor to the IPA
- Predates phonemic theory



Alexander Ellis

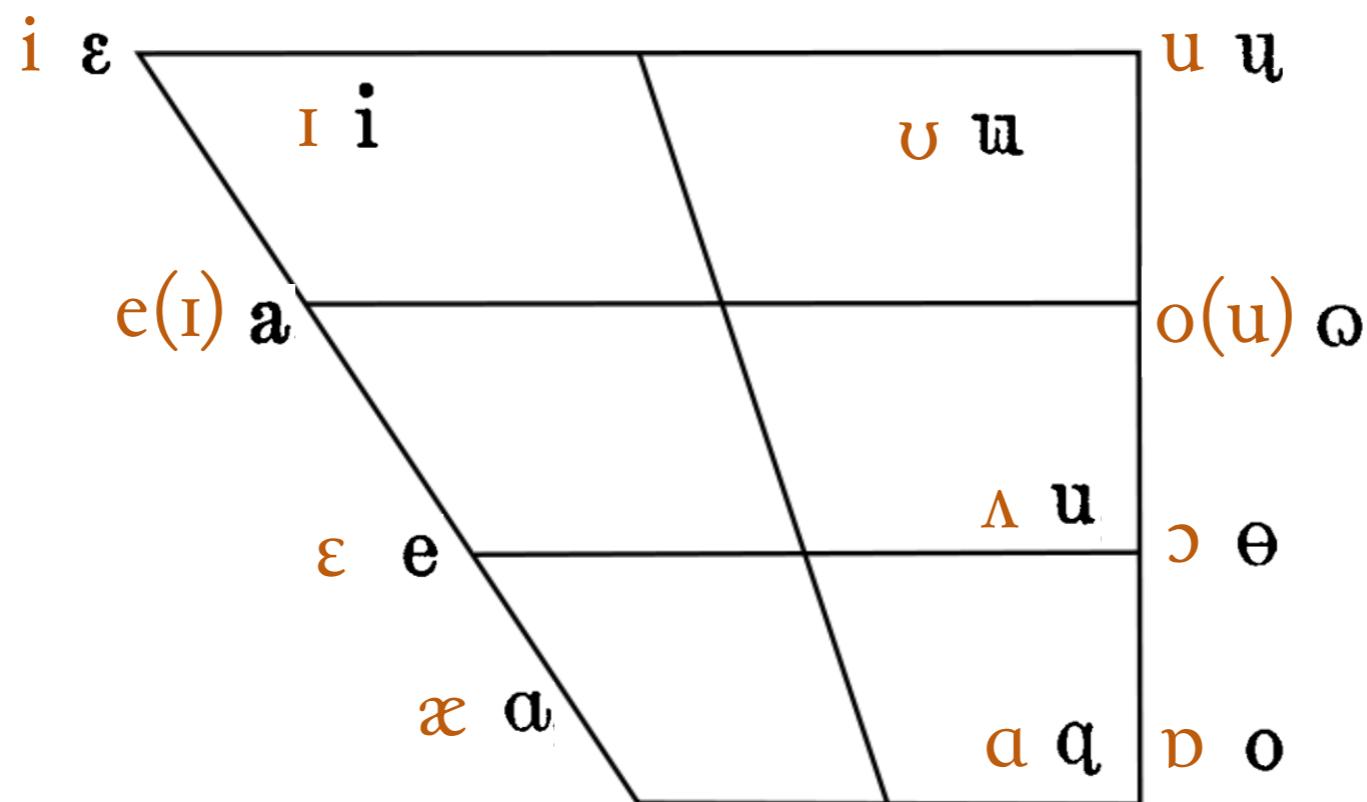
The Yachgan Phonetic Alphabet.

The letter is always			The letter is always			The letter is always		
written	printed	sounded as	written	printed	sounded as	written	printed	sounded as
A a	A a	a in at	O o	O o	oa in oat	th	th	th in thin
A a	A a	a - alms.	L l	L l	ur - fur.	S s	S s	s in so
O o	O o	a - all.	Consonants.			Z z	Z z	is
O o	O o	o - olive	C c	C c	e in cot	f f	f f	sh - show
U u	U u	oo - foot	G g	G g	g - go	z z	z z	s - pleasure
U u	U u	oo - food	T t	T t	t - to	L l	L l	l - low
I i	I i	i - ill	D d	D d	d - do	L l	L l	ll - welsk
E e	E e	ee - ee	P p	P p	p - put	M m	M m	M - me
E e	E e	e - ell.	B b	B b	b - but	N n	N n	n - no
A a	A a	ai - aim.	F f	F f	f - foe	N n	N n	hn - alman.
I i	I i	i - isle	V v	V v	v - vase	W w	W w	wy - wing
O o	O o	oi - oil	C c	C c	ch - chin	R r	R r	r - row
U u	U u	u - us.	J j	J j	j - jade	R r	R r	hr - welsk
X x	X x	ow - owl.	T t	T t	th - thin	K k	K k	ch - german.

Beside the above letters there are these three vowel marks, ' = h, ` = y, r - = w only found over vowels, hence their name. These marks are often found united over vowels, thus uâ = uhwa sij. ashes; uâ = wuhya sij. a door; uâ = wuhwa sij. tinder of birds' down. The effect of these marks always precedes the vowels over, which they are found.

Bridge's vowel system (rough IPA in orange)

'Long and short vowels':



'Diphthongs':

ai ɨ ɔɪ ɐ au ʊ s ə

soljs

tʃs

anjɪ

Gəð

A a, a in <i>haze</i> .	E e, e in <i>men</i> .	Ɛ ε, ea in <i>each</i> .	I i, i in <i>ill</i> .
ʌ ʌ, a in <i>flask</i> .	A ʌ, a in <i>at</i> .	θ θ, a in <i>all</i> .	O o, o in <i>ox</i> .
ʊ u, oo in <i>food</i> .	ʊ u, oo in <i>foot</i> .	ɔ ɔ, oi in <i>oil</i> .	ɨ i, i in <i>isle</i> .
ɔ ɔ, oe in <i>hoe</i> .	U u, u in <i>us</i> .	ʊ ʊ, ou in <i>our</i> .	S s, er in <i>herd</i> .

Getting at the data

Éléna. i. a To build, to make a wigwam, or house.

29 scja acimus çesa satumuacua ácupj ácan; sina
eloc sjinatamus cutupj sa bav meàmèa sina cot
ácan.

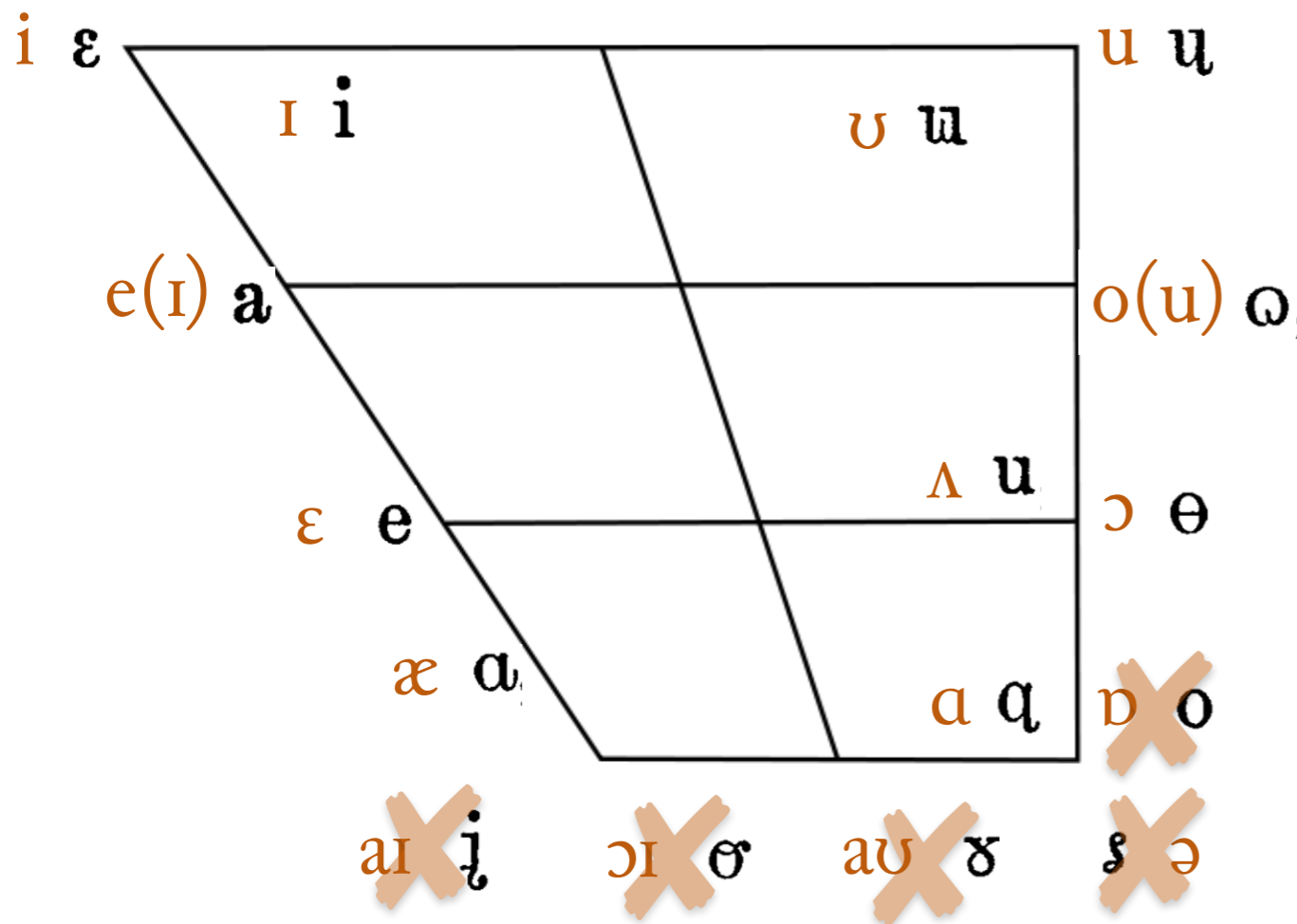
- There is no Unicode for Ellis' Phonotypic Alphabet
- Traditional OCR fails
- Trained a model using 'dingbats' in Transkribus
- Works for print text, but not handwritten text (yet!)



Attestations of Bridges' vowels

Ellis	IPA	Native Vocab	English Vocab
a	e(i)	me ei ækλnætikæ 'fear not'; we ei 'may/can'	a ngel, Ga br i el
ε	i	ikæmænæ 'draw/write'; kitu 'self'	Jude a , prie st
ι	ai	ka ai jide 'swiftly bring'; ha ai 'I'	Christ, fi ve
ω	o(u)	jo ou idag 'strong'; mo ou λnna 'repent'	Clo o k, Jo o seph
υ	u	lut si 'valley'; ulapæ 'bad'	L u ke, Ju de a
α	æ	il æ 'outside'; æt sjæ w æ i æ 'spirit/life'	Z a ch., Naz a reth
e	ε	t ε ki- 'see'; maust ε ka 'care for'	Jeru s alem, Ma r y
i	i	it sjæ 'bear fruit'; κλ sp i x 'spirit'	I srael, ci ty
o	ɒ	—	Jo h n, Prop h et
υ	λ	λ t si 'foreign'; λ σε κ λ s 'sunlight'	Theophi l us
α	ɑ	ba ʋ 'none'; ja ʋ æ 'loud'	Isra e l, Pa s sover
θ	ɔ	ɔ æ lai æ læ 'barren'; mɔ æ læ 'day'	Go d , alt a r, la w
σ	ɔi	(lɔ i maz 'in order')	—
ϝ	au	ha ʋ æn 'this'; a ʋ wλn 'true'	ho u r, to w er
ω	ʊ	hæk ʊ n 'also'; ut sj ikænæ 'urge'	bo o k
ς	ə	—	cha pt er, sold ie r

Re-analysis of Bridges' vowels



i = [ɪ] rarely appears in initial syllables

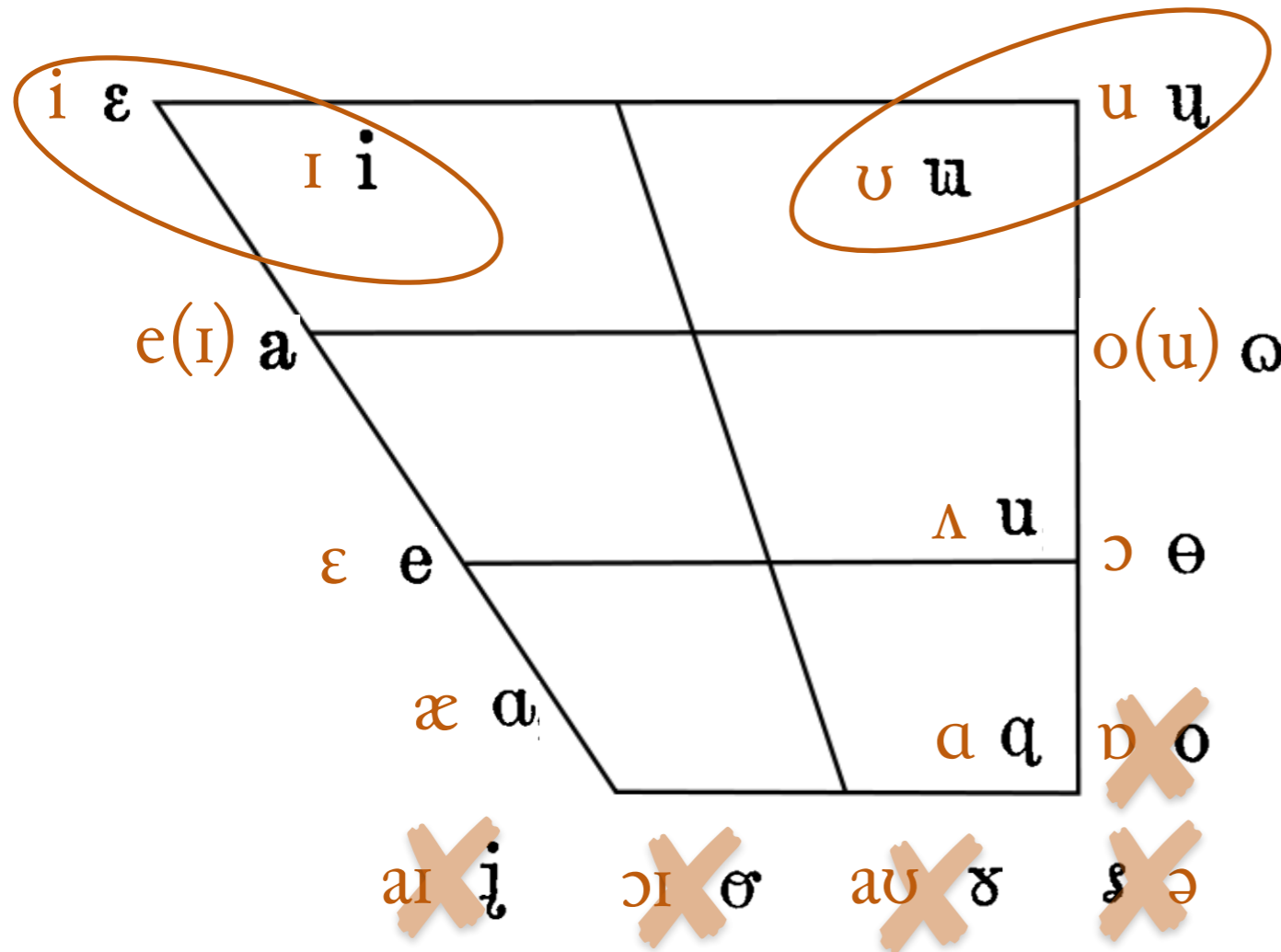
22 cunjìn mánqtsicuníjìn cumunída cutqàa cundj-ananìma, cundjan eqnìsqnada cunjìma ueqn matstu-jealenata, ùsqatupan dagìa euçèàgjidà cundjananìma.

ɛ = [i] is mostly initial

63 cjàda ècamana təcamandeca. ècamandecuda,

- Bridge's four high vowels may reflect sub-phonemic differences
- While stress is not marked, it is reported to be word initial

Re-analysis of Bridges' vowels



u = [ʊ] rarely appears in initial syllables

35 *śacandɛlɔm caʃqɔda*, 'śan śa maun maurua,
san āla maufatea cunjima.

u = [u] is mostly initial

'cunśan ulapaɛi cutaŋgɪatacun ?

- Bridge's four high vowels may reflect sub-phonemic differences
- While stress is not marked, it is reported to be word initial
- Alternations appear to be governed by stress position (i.e. it's allophonic)

English loans in the Calderón sister's speech

- These were related to cultural objects, practices and ideas

náif	dʒam	fáta	láina	pæki	kúkana
'knife'	'jam'	'fat'	'line'	'pack'	'cook'

"I When they did not realise something was an anglicism (as in **[tæɪ]** 'tail' or **[hɔːn]** 'horn') they answered by shrugging: 'well, that's how we learned it ourselves,... it's just how things used to be ... all in English: the services, the classes...everything...' (**Salas & Valencia 1990:166**)

e(I) a

wéitana	leisiá	pléitʃ
'wait'	'lazy'	'plate'

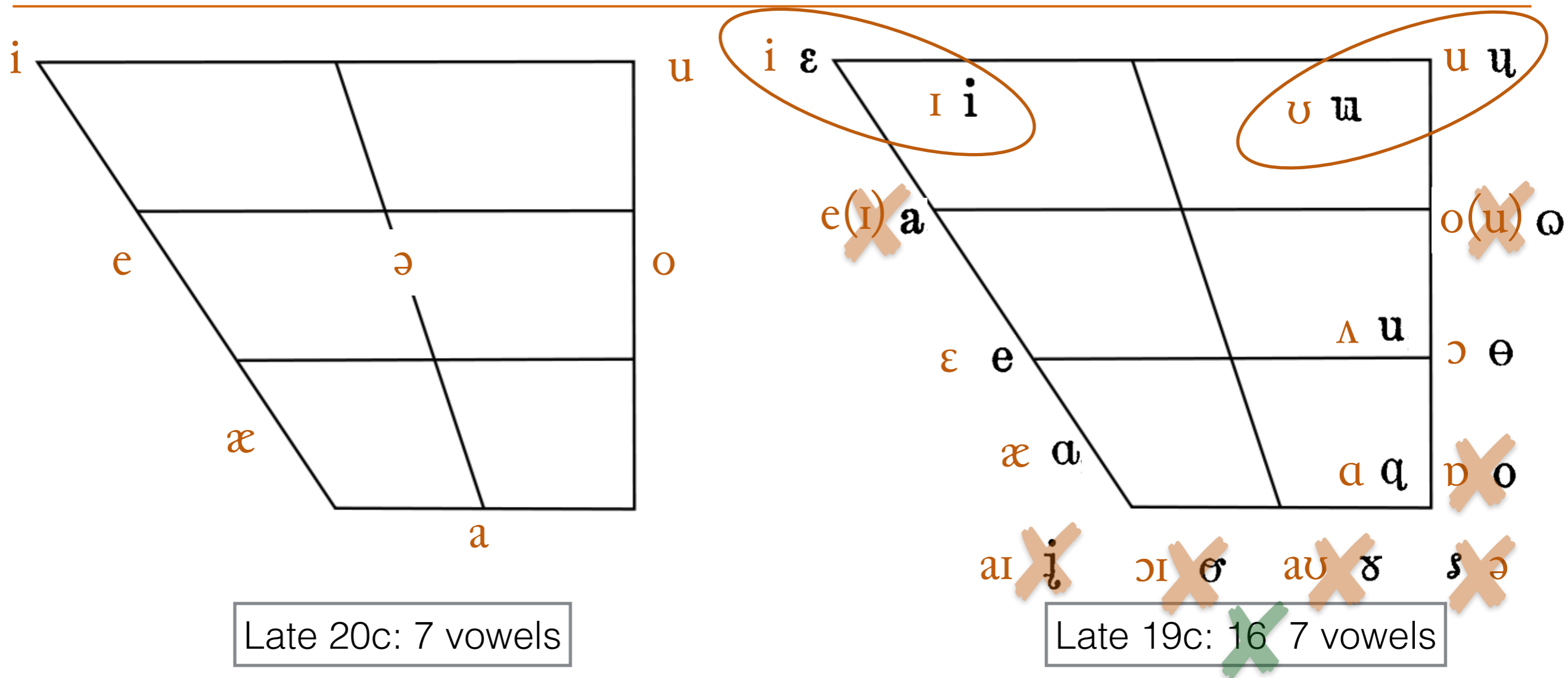
pret~præt	pensil
'bread'	'pencil'

o(u) ɔ

pówt
'boat'

só:spi	hórne
'saucepan'	'horn'

Descriptive differences:



- If we treat diphthongs as strings of vowels and assume stress-based allophony, Bridge's vowel system begins to look a lot like the late 20c data

Explaining the differences

- Descriptive shortcomings
 - Bridges, despite acquiring the language quite young, was a biassed observer
 - The phonotypic alphabet also created biases towards English-like vowels
 - Vowel alternations between high vowels were likely sub-phonemic, but it is unclear if they are a carryover of Bridges L1 or part of 19c Yahgan phonology
- Community multilingualism and language loss likely play a role in irregularity of loanword adaptation and contemporary reports of phonological systems