

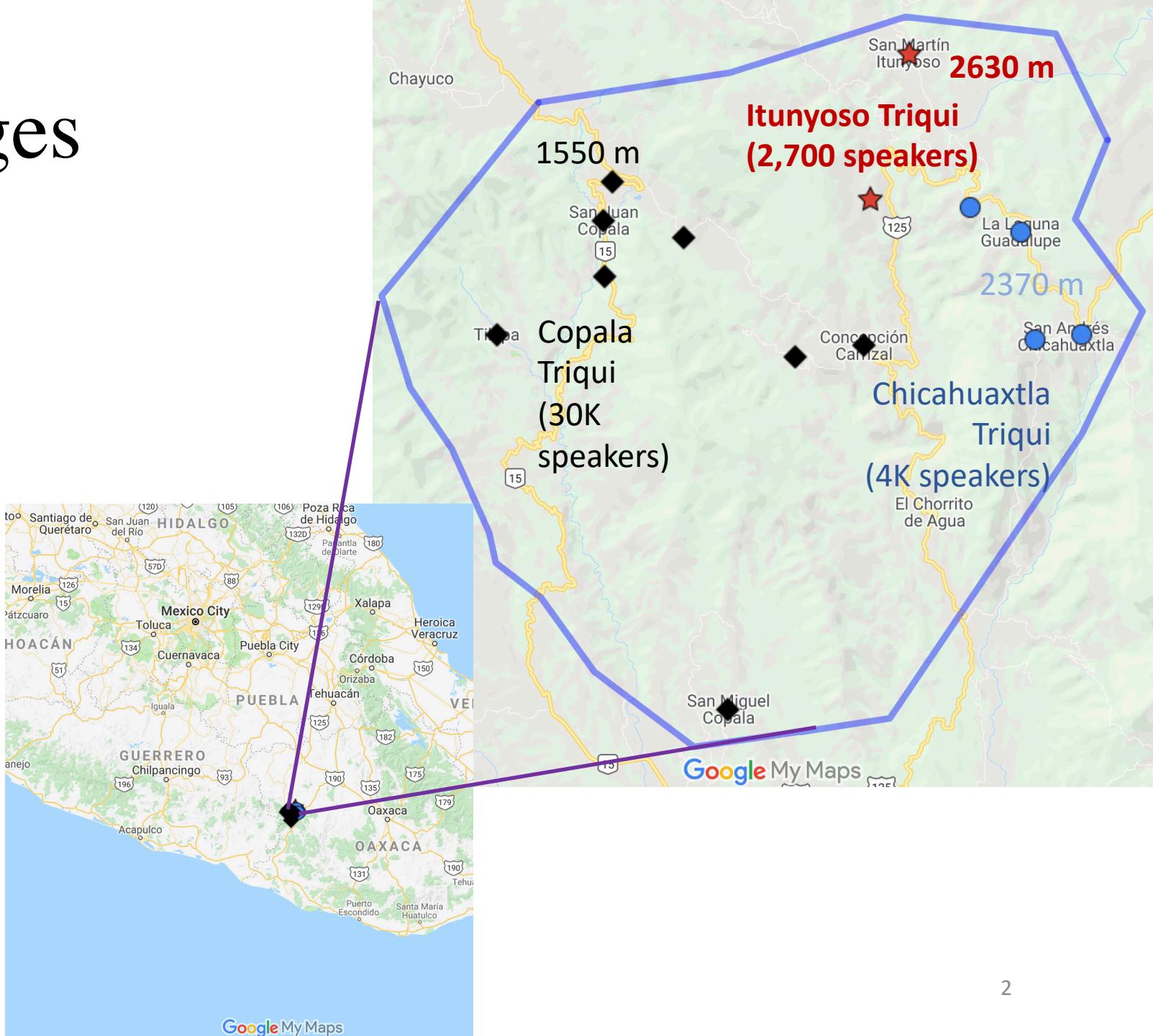
The Structure of Itunyoso Triqui: an overview

Linguistics 460/560
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I. Triqui languages

- 3 major language variants with limited mutual intelligibility.
- All complex tone languages within the Mixtecan family.
- Average distance between the major Triqui regions is ~5 km, but it is very mountainous terrain with large elevation differences.



Language vitality

Most people identifying as Triqui in Mexico speak Triqui, including children.

The situation is very different in expatriate communities that have moved away from the Triqui region.

Most people under 50 are bilingual in Spanish.



San Martín Itunyoso



- There are two towns where **Itunyoso** Triqui is spoken: San Martín Itunyoso (shown) and the smaller *agencia* of La Concepción Itunyoso (not shown), which is a 5-10 minute drive away on the other side of the valley.



- At 2600 meters, it is a very mountainous region. From certain points you look “down” on the clouds. Clouds roll in most afternoons to cover the town in a thick fog.



Triqui food/agriculture

Most work in the town is subsistence agriculture, with some foods sold at local markets. Women sell woven goods (bags, shawls, purses, laptop covers, *huipiles*).

There are over 40 types of *quelites* (edible greens) that are eaten locally. They are either harvested or foraged.

Weaving is extremely elaborate and completed by hand on a loom tied to a tree/post at one end and a *mecapal* (weaving belt) tied around the weaver's waist at the other end.

The large red dress is a *huipil* [wi'*pil*] and it is traditionally worn by women in the village.

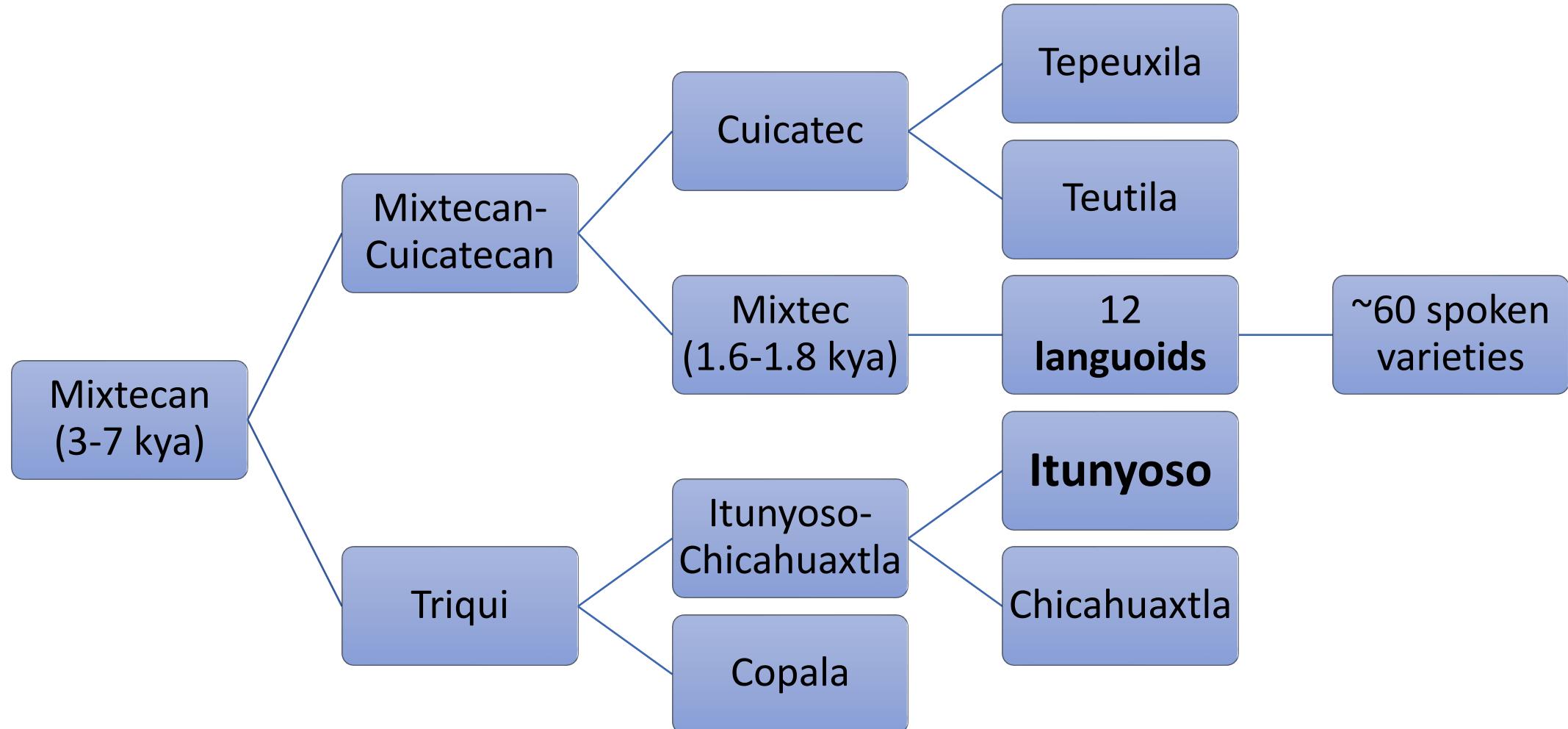


Literacy

There is no widespread literacy in the language, but that is gradually changing with literacy workshops and training.

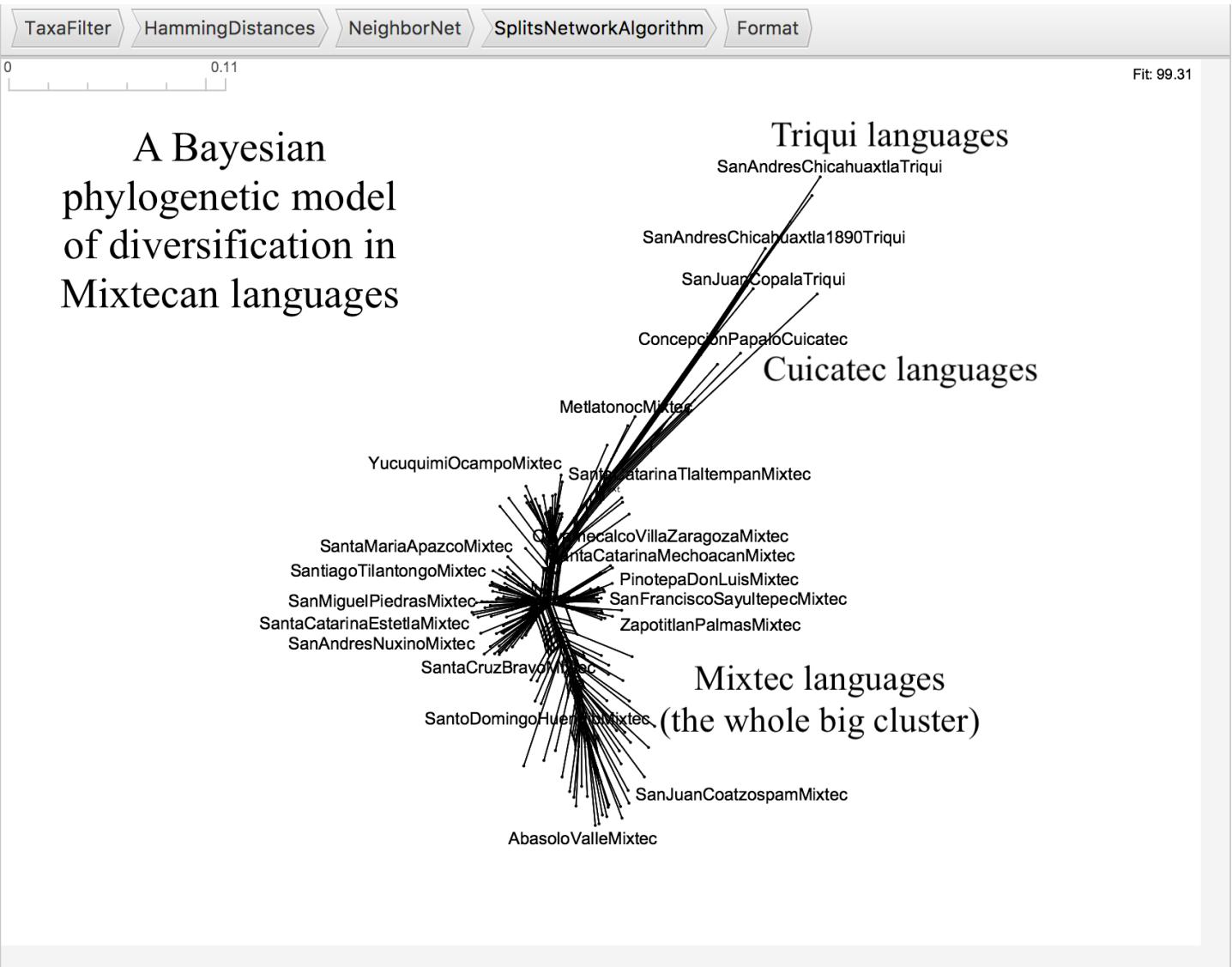


Genetic affiliation (traditional)



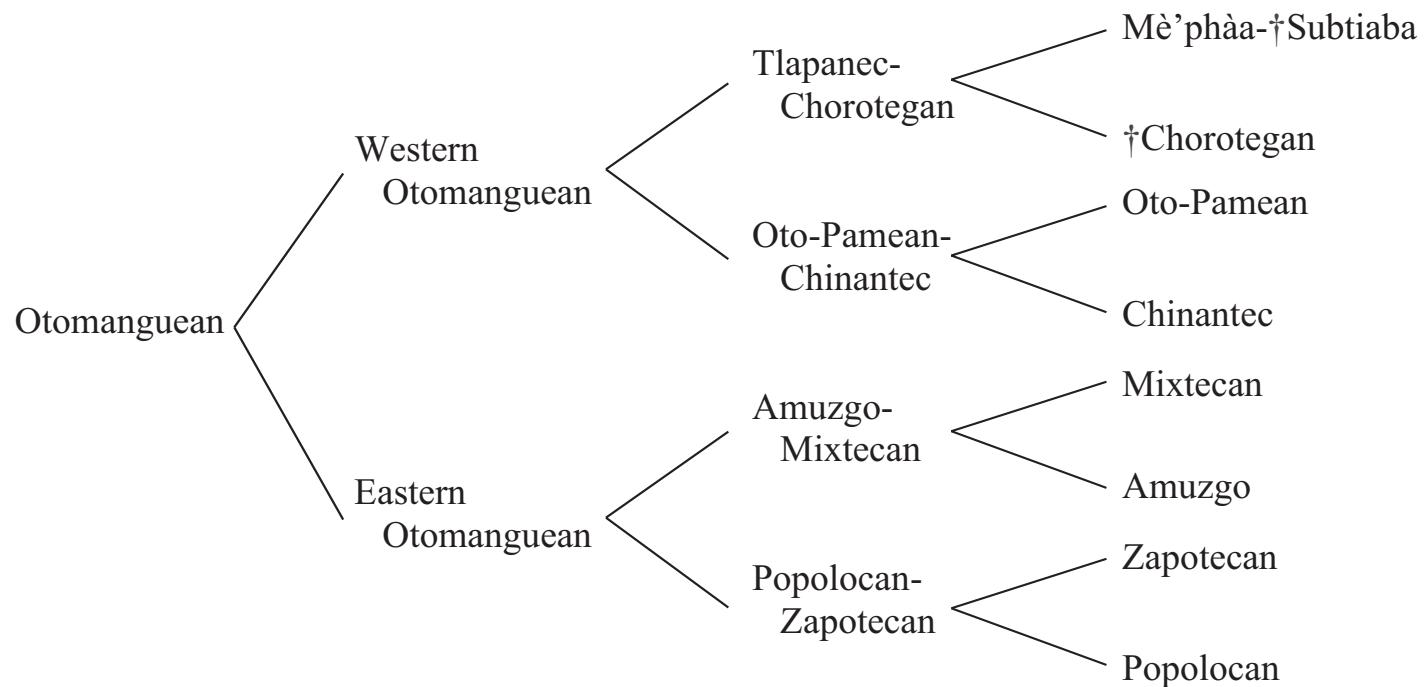
Genetic “distance” (recent)

(Auderset, Campbell,
DiCanio, and Greenhill,
2023)

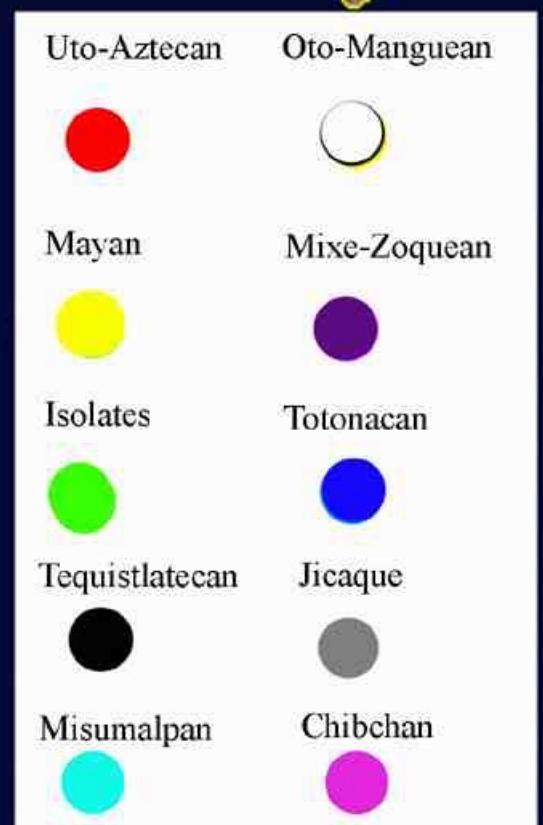


Several branches to Otomanguean

With 180 languages/varieties, Otomanguean is the largest language family in the Americas. The diversity is on par with Indo-European, but in an area the size of New York State!



[Legend](#)[Icon size](#) Show/hide Labels[GeoJSON](#)



The size of the Otomanguean language family

- The Zapotec empire spread throughout Oaxaca from 2,500 – 1,500 years ago. The Mixtec empire began to spread between 1100 – 1300 CE.
- As a result, both Mixtec and Zapotecan languages diversified greatly within Southern Mexico. Speakers settled in new areas and the language variants further diversified.
- This led to Otomanguean becoming a much larger language family than others (the largest known family in the Americas).
- A similar process probably also occurred with the Aztecs/Nahuatl speakers – there are many Nahuatl varieties/languages.

Mixtec expansion/empire

- Between the 12th and 14th centuries, Mixtecs united and began to expand beyond their region.
- The figure Eight-Deer Jaguar Claw led Mixtecs in battles against people in the region. This greatly expanded Mixtec languages.



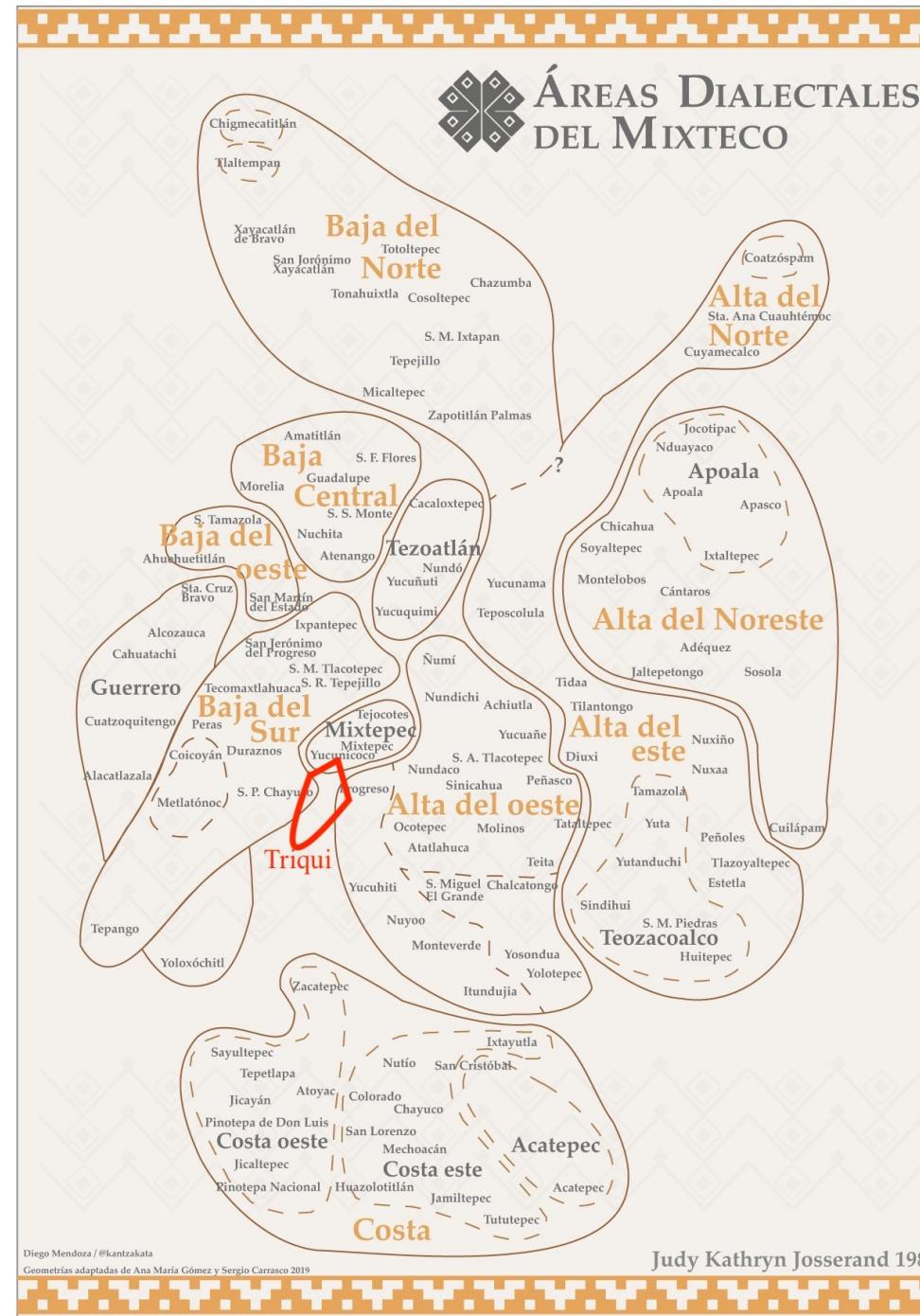
Nuttall codex – tells the story of Eight-Deer; UC San Diego Library

Typological features of Otomanguean

- Unlike Uto-Aztecán, Mayan, and Mixe-Zoquean, all Otomanguean languages are tonal. Most also have morphological tone.
- The morphology is mostly fusional with some affixation on verbs, but it is otherwise fairly isolating.
- Virtually all Otomanguean languages have verb-initial word order.
- Vigesimal numeral systems (base 20)
- Relational nouns
- Verbs of emotion/cognition are all formed via a specific type of compounding.

Triqui is surrounded by Mixtec varieties

The Triqui speaking area is surrounded by the many different varieties of Mixtec, shown here superimposed over a map from Josserand's dialectological survey of Mixtec, published in 1983.



Intelligibility among varieties/dialects

- There is about 60% intelligibility between the Itunyoso and Chicahuaxtla Triqui varieties, but Copala Triqui is more divergent from the other varieties. It is not intelligible as the same language.

Itunyoso Triqui	Chicahuaxtla Triqui	Copala Triqui
tʃã?¹ 'tasty'	ʃiãh²³	tʃi³?ãh¹
tʃu³tah³ 'deer'	ʃu³tah³	ʃtah³
tʂuh³ ~ tʃuh³ 'pot'	ruh³	ʃuh³

What does Itunyoso Triqui sound like?

Se⁴ chi³yun³² ka³-hnah³ rian³² beh³,
NEG bat PERF-come face house

chi³nunh³ ka³-hnah³ rian³² beh³
hawk PERF-come face house



'It wasn't a bat that landed in front of the house, (but) a hawk landed in front of the house.'

What are all those numbers? There are 9 tones.



β:eh⁵ ‘straw mat’

β:e⁴ ‘hair’

n:e³ ‘plough’

n:e² ‘to lie (to someone)’

n:e¹ ‘naked’

tse⁴³ ‘my father’

n:e³² ‘water’

n:e³¹ ‘meat’

n:ãh¹³ ‘towards here’

Triqui languages have complex tonal systems and important distinctions between roots which end with /h/ and /ʔ/.

For many Otomanguean languages, researchers focus on phonological aspects of the languages because:

- (a) the phonology is very complex
- (b) the phonology is important to the morphology (grammatical tone)

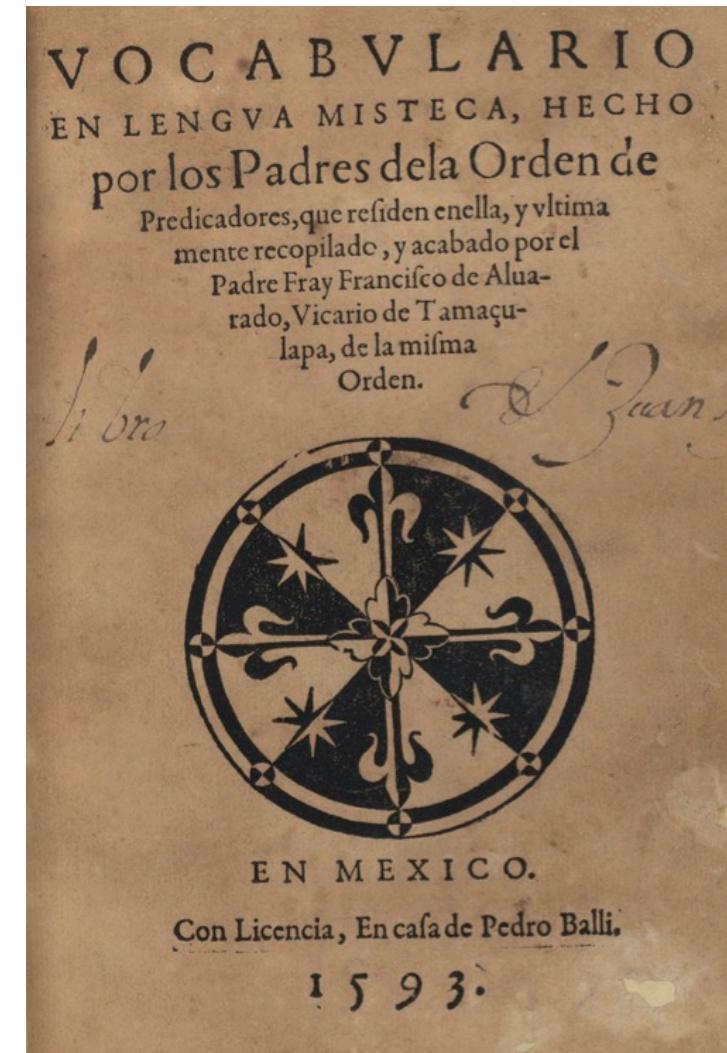
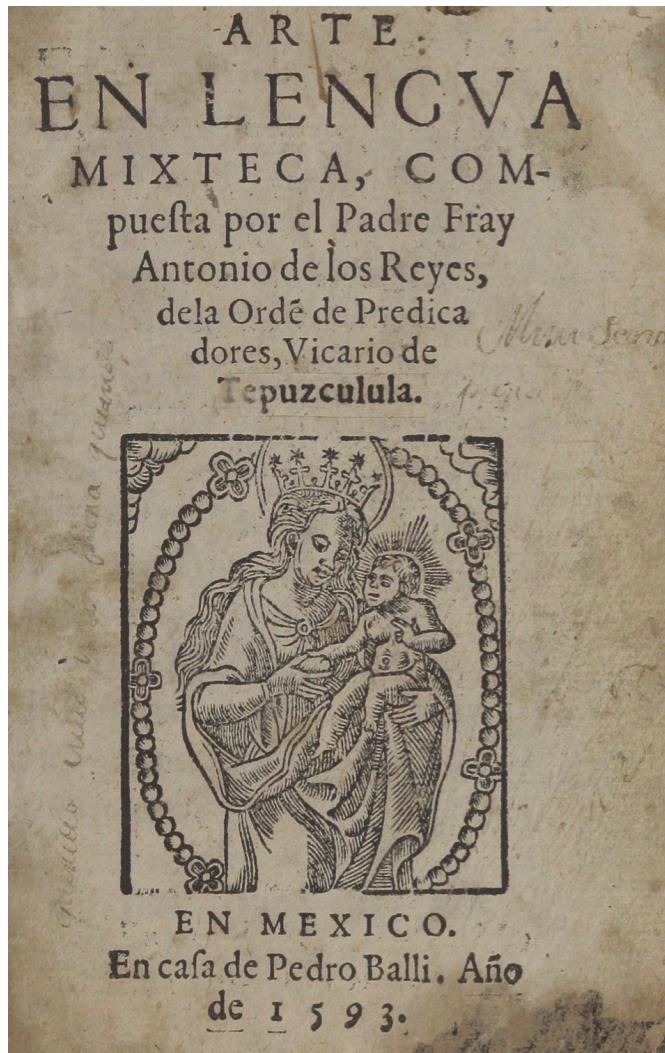
Linguistic characteristics (a snapshot)

- Most roots in Triqui are disyllabic, with monosyllabic roots displaying additional phonological complexity.
- Complex tone (throughout varieties). Copala Triqui has 8 tones, Itunyoso Triqui has 9 tones, Chicahuaxtla Triqui has 10 tones.
- Tone is morphological too – it is used for marking verbal aspect, person marking, possession, negation, and even some syntactic phenomena.
- VSO, with fronted constituents conditioned by information structure.
- Complex pragmatics with very elaborate final particle system.

Early scholarship on Mixtecan languages

Some of the earliest dictionaries of languages in the Americas were on Mesoamerican languages.

Fray Francisco de Alvarado's Mixtec dictionary and Fray Antonio de los Reyes grammar are both from 1593.



Early scholarship on Triqui languages (minimal)

Chicahuaxtla Triqui

Belmar, F. (1897). *Lenguas del Estado de Oaxaca: Ensayo sobre lengua Trique*. Imprenta de Lorenzo San-Germán.

Longacre, R. E. (1952). Five phonemic pitch levels in Trique. *Acta Linguistica*, 7:62–81. (**SIL**)

Longacre, R. E. (1959). Trique Tone Morphemics. *Anthropological Linguistics*, 1(4):5–42. (**SIL**)

Copala Triqui

Hollenbach, B. E. (1973). La aculturación lingüística entre los triques de Copala, Oaxaca. *América Indígena*, 33:65–95. (**SIL**)

Hollenbach, B. E. (1984). The Phonology and Morphology of Tone and Laryngeals in Copala Trique. PhD thesis, University of Arizona, Tucson. (**SIL**)

Later work (red indicates Triqui linguist work)

Itunyoso Triqui

DiCanio, C. (2008). The Phonetics and Phonology of San Martín Itunyoso Trique. PhD thesis, University of California, Berkeley, Berkeley.

...and 11 additional publications from 2010 – 2022, mostly in phonetics/phonology

Chicahuaxtla Triqui (by year)

Hernández Mendoza, F. (2009). *Daj nadure' sinugun': Los usos de la lengua Nanj Nñ'ín y del español en las comunidades Triquis de Chicahuaxtla*. Master's thesis, Universidad Mayor de San Simón, Bolivia.

Elliott, A. R., Sandoval Cruz, F., and Santiago Rojas, F. (2012). Notes from the Field: Chicahuaxtla Triqui Digital Wordlist and Preliminary Observations. *Language Documentation and Conservation*, 6:208–236.

Hernández Mendoza, F. (2014). Prominencia silábica en el Triqui de Chicahuaxtla. In Bennett, R., Dockum, R., Gasser, E., Goldenberg, D., Kasak, R., and Patterson, P., editors, *Proceedings of the Workshop on the Sound Systems of Mexico and Central America*.

Elliott, A. R., Edmondson, J. A., and Sandoval Cruz, F. (2016). Illustrations of the IPA: Chicahuaxtla Triqui. *Journal of the International Phonetic Association*, 46(3):351–365.

Hernández Mendoza, F. (2017). *Tono y fonología segmental en el triqui de Chicahuaxtla*. PhD thesis, Universidad Nacional Autónoma de México, Mexico City.

Hernández Mendoza, F. (2021). La frase nominal simple en el triqui de Chicahuaxtla. In Arellanes Arellanes, F. and Guerrero, L., editors, *Volumen conmemorativo: Seminario de lenguas indígenas*. México: Instituto de Investigaciones Filológicas.

Hernández Mendoza, F. (2021). Morfofonología de los clíticos tonales en el triqui de Chicahuaxtla. *Cuadernos de Lingüística de El Colegio de México*, 8:1–53.

Copala Triqui (by year)

- Hollenbach, B. E. (1973). El parentesco entre los triques de Copala, Oaxaca. *América Indígena*, 33:167–186.
- Hollenbach, B. E. (1976). Tense-negation interplay in Copala Trique. *International Journal of American Linguistics*, 42:126–132.
- Hollenbach, B. E. (1977). Phonetic vs. phonemic correspondence in two Trique dialects. In Merrifield, W. R., editor, *Studies in Otomanguean Phonology*, number 54 in Publications in Linguistics, pages 35–67. Summer Institute of Linguistics, Dallas.
- Hollenbach, B. E. (1984). Copala Trique tone and universal features. *Coyote Papers*, 5:96–119.
- Hollenbach, B. (1985). Vowel length in copala trique: an abstract laryngeal analysis. *International Journal of American Linguistics*, 51(4):455–457.
- Hollenbach, B. E. (1992). A syntactic sketch of Copala Trique. In Bradley, C. H. and Hollenbach, B. E., editors, *Studies in the syntax of Mixtecan Languages*, volume 4. Dallas: Summer Institute of Linguistics and University of Texas at Arlington.**
- Hollenbach, B. E. (2004). *Gramática popular del triqui de Copala*. Summer Institute of Linguistics, Mexico, Mexico City.**
- Hollenbach, B. E. (2007). *Vocabulario breve del triqui de San Juan Copala*. SIL International.
- Vidal López, R.**, Broadwell, G. A., Matsukawa, K., Martín del Campo, E., Scipione, R., and Perdomo, S. (2009). *The origin of the sun and the moon: A Copala Triqui legend*. Munich: Lincom Europa.
- Albany Triqui Working Group. (2014-20). *A Copala Triqui – Spanish – English dictionary*, <http://copalatriqui.webonary.org>
- Rodriguez, J. S. (2021). *The syntax and phonology of grammatical tone in Copala Triqui*. PhD thesis, University at Albany.
- López Espinoza, E.** (2022). *Las construcciones relativas en el triqui de Copala*. Master's thesis, Centro de Investigaciones y Estudios Superiores en Antropología Social (CIESAS): Sureste.
- Broadwell, G. A. (to appear). The emergence of accusative case in Copala Triqui. *Linguistic Discovery*.

Status of my scholarship on Itunyoso Triqui

- 2004 – 2008 Dissertation research, focus on phonetics and phonology of tone/phonation/length.
- 2009 – 2014 Post-doctoral research (France, US), focus on perception of tone, phonation; tonal coarticulation
- 2014 – 2019 NSF DLI/DEL documentation grant, focus on text collection, transcription, morphophonology, and prosody
- 2020 – 2022 Continued focus on translation and documentation; UB Humanities institute grant
- 2023 – present Focus on reference grammar; NEH fellowship grant
- 2004 – present *The Triqui-Spanish dictionary*



Course information

- Readings most weeks of the semester examine various topics pertaining to Otomanguean or Triqui grammar. These are up on UB Learns under *Readings*.
- There are 3 homework assignments and a final project
 1. HW1: on sound structure of Triqui
 2. HW2: on morphology or syntax of Triqui
 3. HW3: on a topic of your choice from the existing materials
- The final project involves exploring some aspect of Triqui grammar from the corpus or dictionary. It may involve creating a Triqui lesson/game.

Types of materials we will access in the course

- The Triqui-Spanish dictionary
- Inflectional database
- 400K word text corpus in *ELAN* with Triqui transcriptions and translations into Spanish
- Additional elicitation recordings (~50 hours) targeting specific contrasts.
- Fieldnotes from 2004 – present.

A Triqui-Spanish dictionary (FLEX)

- Since 2004, we've been working on a Triqui-Spanish dictionary. It currently has about 2,758 entries (2072 words, 686 compounds).
- Access via the web, but this is the exported version.

narih | *na3rih3* [na³ri?³] v

1. encontrar cosas **na3rih4=rehl1 sa3hanj2** Encuentras dinero.

2. combinarse, p.ej. hilos

3. encontrar ideas, palabras **nun3 nalrilhij1 naltajl rian32=rehl1** No puedo encontrar (cosas) a contarte a ti.

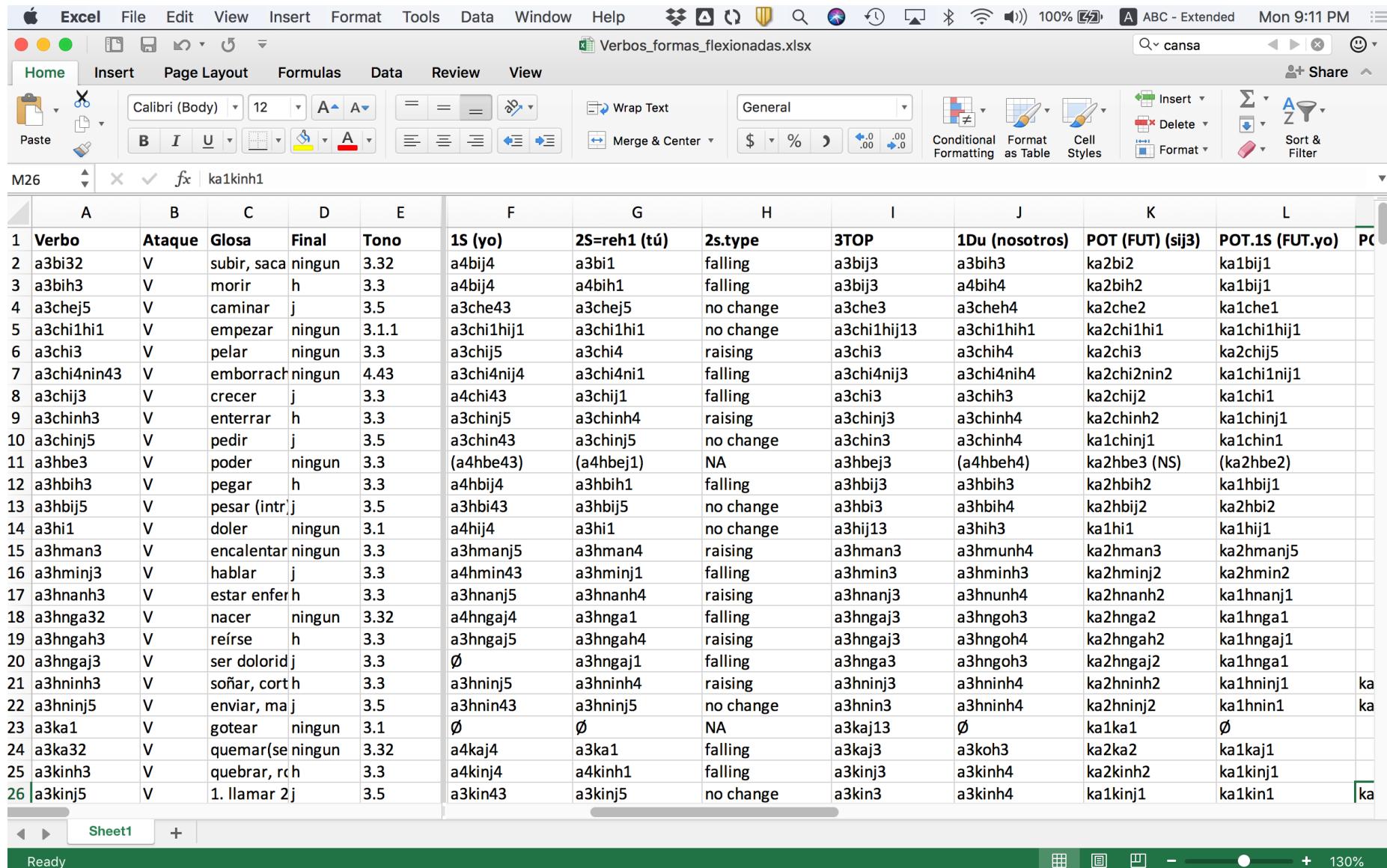
4. aprender **na3ri3hij5 sna3hanj3 sti4la43** Estoy aprendiendo español.

5. estar permitido, para que

• *POT kinārih, IS narihij, raíz 2S narih*

• **narih nübij** na3rih3 nu2bij3narih nübij v ponerse frio; lit. encontrar + tener.frio [*IS narih nübii*]

Inflectional database



The screenshot shows a Microsoft Excel spreadsheet titled "Verbos_formas_flexionadas.xlsx". The table contains 26 rows of data, each representing a verb entry. The columns are labeled A through L. Column A is "Verbo", B is "Ataque", C is "Glosa", D is "Final", E is "Tono", F is "1S (yo)", G is "2S=reh1 (tú)", H is "2s.type", I is "3TOP", J is "1Du (nosotros)", K is "POT (FUT) (sij3)", and L is "POT.1S (FUT.yo)". The data includes various Spanish verbs like "subir", "morir", "caminar", etc., with their corresponding inflected forms and tonal information.

1	Verbo	Ataque	Glosa	Final	Tono	1S (yo)	2S=reh1 (tú)	2s.type	3TOP	1Du (nosotros)	POT (FUT) (sij3)	POT.1S (FUT.yo)
2	a3bi32	V	subir, saca	ningun	3.32	a4bij4	a3bi1	falling	a3bih3	a3bih2	ka1bij1	ka1bij1
3	a3bih3	V	morir	h	3.3	a4bij4	a4bih1	falling	a3bij3	a4bih4	ka2bih2	ka1bij1
4	a3chej5	V	caminar	j	3.5	a3che43	a3chej5	no change	a3che3	a3cheh4	ka2che2	ka1che1
5	a3chi1h1	V	empezar	ningun	3.1.1	a3chi1hij1	a3chi1hi1	no change	a3chi1hij13	a3chi1hij1	ka2chi1hij1	ka1chi1hij1
6	a3chi3	V	pelar	ningun	3.3	a3chij5	a3chi4	raising	a3chi3	a3chih4	ka2chi3	ka2chij5
7	a3chi4nin43	V	emborrach	ningun	4.43	a3chi4nij4	a3chi4ni1	falling	a3chi4nij3	a3chi4nih4	ka2chi2nin2	ka1chi1nij1
8	a3chij3	V	crecer	j	3.3	a4chi43	a3chij1	falling	a3chi3	a3chih3	ka2chij2	ka1chi1
9	a3chinh3	V	enterrar	h	3.3	a3chinj5	a3chinh4	raising	a3chinj3	a3chinh4	ka2chinh2	ka1chinh1
10	a3chinj5	V	pedir	j	3.5	a3chin43	a3chinj5	no change	a3chin3	a3chinh4	ka1chinj1	ka1chin1
11	a3hbe3	V	poder	ningun	3.3	(a4hbe43)	(a4hbej1)	NA	a3hbej3	(a4hbeh4)	ka2hbe3 (NS)	(ka2hbe2)
12	a3hbih3	V	pegar	h	3.3	a4hbij4	a3hbih1	falling	a3hbij3	a3hbih3	ka2hbih2	ka1hbij1
13	a3hbij5	V	pesar (intr)	j	3.5	a3hbj43	a3hbij5	no change	a3hbij3	a3hbij4	ka2hbij2	ka2hbij2
14	a3hi1	V	doler	ningun	3.1	a4hij4	a3hi1	no change	a3hij13	a3hiih3	ka1hi1	ka1hij1
15	a3hman3	V	encalentar	ningun	3.3	a3hmanj5	a3hman4	raising	a3hman3	a3hmuh4	ka2hman3	ka2hmanj5
16	a3hminj3	V	hablar	j	3.3	a4hmin43	a3hminj1	falling	a3hmin3	a3hminh3	ka2hminj2	ka2hmin2
17	a3hnanh3	V	estar enfer	h	3.3	a3hnanj5	a3hnanh4	raising	a3hnanj3	a3hnunh4	ka2hnanh2	ka1hnanj1
18	a3hnga32	V	nacer	ningun	3.32	a4hngaj4	a3hnga1	falling	a3hngaj3	a3hngoh3	ka2hnga2	ka1hnga1
19	a3hngah3	V	reírse	h	3.3	a3hngaj5	a3hngah4	raising	a3hngaj3	a3hngoh4	ka2hngah2	ka1hngaj1
20	a3hngaj3	V	ser dolorid	j	3.3	Ø	a3hngaj1	falling	a3hnga3	a3hngoh3	ka2hngaj2	ka1hnga1
21	a3hninh3	V	soñar, cort	h	3.3	a3hninj5	a3hninh4	raising	a3hninj3	a3hninh4	ka2hninh2	ka1hninj1
22	a3hninj5	V	enviar, ma	j	3.5	a3hninj43	a3hninj5	no change	a3hnin3	a3hninh4	ka2hninj2	ka1hnin1
23	a3ka1	V	gotear	ningun	3.1	Ø	Ø	NA	a3kaj13	Ø	ka1ka1	Ø
24	a3ka32	V	quemar(se	ningun	3.32	a4kaj4	a3ka1	falling	a3kaj3	a3koh3	ka2ka2	ka1kaj1
25	a3kinh3	V	quebrar, rch	h	3.3	a4kinj4	a4kinh1	falling	a3kinj3	a3kinh4	ka2kinh2	ka1kinj1
26	a3kinj5	V	1. llamar 2j		3.5	a3kin43	a3kinj5	no change	a3kin3	a3kinh4	ka1kinj1	ka1kin1

We also have a database of tonal inflectional paradigms (970 main entries).

It contains 5,342 sub-entries for inflected words

(see DiCanio et al 2020).

The text corpus (ELAN)

- In addition to about 40 hours of elicitation and experimental recordings, we have 29 hours of spontaneous/unscripted speech from 34 speakers.
- Content is Triqui culture, ethnobiology, history, narratives, and folktales. Most involve conversational dyads with separately mic'd speakers; 289 recordings.
- All transcribed and time-aligned in ELAN.

But also, my grammar chapters

- There is a popular grammar of Copala Triqui (Hollenbach 2004) and a syntactic sketch of Copala Triqui (Hollenbach 1992), but no reference grammar on any Triqui language.
- A comprehensive reference grammar is underway with chapters on aspects of the language's phonetics and phonology, chapters on aspects of the clitic, nominal, and verbal morphology, chapters on syntactic structure, and chapters on semantics/pragmatics.
- I'm writing this right now, so if there are open questions/issues you see in the chapters, please tell me! These could also be projects to work on.

Why write a grammar?

You learn a lot through years of fieldwork.

After a documentation project has ended, where does this knowledge go?

The screenshot shows the ELAN 6.3 interface with the following details:

- File Path:** ELAN 6.3 - CLG_NLG_derechos_de_mujeres_triquis_6-9-15_eng.eaf
- Menu Bar:** Archivo, Editar, Comentario, Línea, Tipo, Buscar, Visualizar, Opciones, Ventana, Ayuda.
- Toolbar:** Parrilla (selected), Texto, Subtítulos, Lexicón, Comments, Reconocedores, Metadatos, Controles.
- Table View:** Shows annotations (Anotación) with columns: Nr, Anotación, Tiempo inicial, Tiempo final, Duración. Annotations include:
 - 72 sah1 ba32 nej3 ni2 hnijn32 nej3 ngo2 swa4tu43 sah1 ni2 nun2 nej3 ngo2 chi3roj3 sah1 si2 a4nin43 ra43 nej3 ... (00:08:07... 00:08:11... 00:00:04...)
 - 73 sa3ni2 [munh] yunh1 binh4 ngwi31 cha1na1 ni2ki3 ni2 be4 (ng)a13 na4 toj3 ni2 nun2 nej3 si4nin43 nun2 nej3 ... (00:08:12... 00:08:18... 00:00:06...)
 - 74 na3nun32 nej3 ste4ku43 ni2 na3nun32 nej3 chi3roj3 (00:08:18... 00:08:20... 00:00:01...)
- Timeline:** Shows a waveform from 00:08:12.020 to 00:08:18.130. Selection range: 00:08:12.020 - 00:08:18.130 (6110 ms).
- Annotations List:** On the left, a list of annotations with counts:
 - CLG_NLG_derechos_de_mujeres_triquis_6-9-15_eng.eaf [59]
 - NLG [59]
 - CLG [138]
 - COMENTARIOS [3]
 - Traducción-NL [58]
 - Traducción-CL [138]
 - Translation-NL [58]
 - Translation-CL [138]
 - CLG_phon - w [2660]
 - CLG_phon - p [6895]
- Transcription and Translation:** The main area displays the transcription "sa3ni2 [munh] yunh1 binh4 ngwi31 cha1na1 ni2ki3 ni2 be4 (ng)a13 na4 toj3 ni2 nun2 nej3 si4nin43 nun2 nej3 chru3hnun4 ni2 yyaj13 ni2" and its English translation "pero nosotras somos mujeres pobres y hace poco tiempo que usan rollo y que usan huipil y ahora es que cambió que vamos a poner pantalones". Below this, phonetic transcription and IPA transcription are shown.

Why? (cont)

- The NSF documentation grant (2014 – 2019) involved training speakers in literacy in Triqui and running literacy workshops in the community.
- I taught Basileo Martínez Cruz, Benigno Cruz Martínez, and Wilibaldo Martínez Cruz literacy and they spent 3-6 years transcribing recordings.
- They have transcribed 29 hours of Triqui speech.
- We reviewed many of the recordings they transcribed (~12 hours) over this period. This includes years of work correcting tonal transcriptions.
- We have translated about 6-7 hours of Triqui speech.
- We know a lot and want this knowledge to be recorded and used/learned by others.

Topics of interest in Triqui grammar

I've published on...	Interesting ongoing projects
Segmental phonetics and phonology (glottalization and length, especially)	Triqui has over 40 final particles marking pragmatic differences (but no intonation)
Tonal phonetics and phonology	Complex possession system with unique constructions for animals and inalienables
Tonal morphology w/rt clitic pronouns	Complex system of negation (several negators, morphological toggling)
Verbal aspect morphology	VSO word order but main verb final with clefts, causatives, "infinitival constructions"
Speech variation	Marginal morphological contrasts (optative marking, obviative marking) involve very unique phonological patterns.
Prosody and information structure	Complex verb+adverb marking

Tonal morphology

o?³ ‘to hit’

oh⁵ ‘I am hitting’

o?⁴ ‘we are hitting’

oh³ ‘the mentioned person is hitting’

k-o?¹ POT-hit

koh¹ ‘I will hit’

ko?¹ ‘we will hit’

koh¹³ ‘the mentioned person will hit’

It can take years to understand the subtleties of tonal phonologies in different Otomanguean languages.

But it is intertwined with the morphology (which can also take some time to figure out).

So, linguists sometimes never leave the morphophonology.

This took me 10 years to figure out!

Table 9: Examples of strata in Itunyoso Triqui

		Word	Gloss	Word	Gloss
Stratum 1	Input	a ³ chīh ⁵	ask.for	a ³ chīh ⁵	ask.for
	Output	k-a ³ chīh ⁵	PERF-ask.for	k-a ² chīh ²	POT-ask.for
Stratum 2	Input	ka ³ chīh ⁵	PERF.ask.for	ka ² chīh ²	POT.ask.for
	Output	ka ³ chī: ⁴³	PERF.ask.for.1s	ka ¹ chī: ¹	POT.ask.for.1s
Stratum 1	Input	βe? ³	house	ko ³ no ³ ?o ⁴	medicine
	Output	tu ³ k ^w a ⁴	POSS.house	si ³ -ko ¹ no ¹ ?o ¹	POSS-medicine
Stratum 2	Input	tu ³ k ^w a ⁴	POSS.house	si ³ ko ¹ no ¹ ?o ¹	POSS.medicine
	Output	tu ³ k ^w ah ⁴⁵	POSS.house.1s	si ³ ko ¹ no ¹ ?oh ¹	POSS.medicine.1s

DiCanio, C., Martínez Cruz, B., Cruz Martínez, B., and Martínez Cruz, W. (2020). Glottal toggling in Itunyoso Triqui. *Phonological Data & Analysis*, 2(4):1–28.

But there is so much more to investigate!

Word	Use	Copala Triqui (trc)
ni ³ taj ²	negative existential, ‘be none’	taj ³²
se ⁴	counterfactual, negative focus' e.g. ‘not A, but B’	—
nun ³	standard negator, ‘not’	ne ³
si ³	prohibitive; future negator	se ²

The standard negator involves a morphological toggle – the perfective and potential forms flip under negation, c.f. Baerman (2007).

Optative marking? (with tone)

Itunyoso Triqui permits two constructions for the expression of epistemic modality.

1. Use of a^3hbe^3 ‘able to’ + verb (periphrasis)

$k-a^2hbe^3 \quad na^2ki^3hyoh^4$

POT-able PERF.fix.1P

‘We will be able to fix it.’

	Stem	Gloss	POT	POT.OPT
2. Vowel reduplication on stems	(a) nne^3	‘to sit’	ka^2ne^2	$ka^2ne^2e?^4$
	(b) $ko^4?o^{43}$	‘to drink’	$ko^2?o^2$	$ko^2?o^2o?^4$
	(c) $tʃa^{43}$	‘to eat’	$tʃa^2$	$tʃa^2a?^4$
	(d) $rā^4?āh^4$	‘to dance’	$ki^2rā^2?āh^2$	$ki^2rā^2?ā^2ā?^4$

This is a rare contrast not found elsewhere.

- (11) ni³?yāh³ sa¹a?⁴ neh³ kwe⁴nta⁴³ ko²?o?²
serve good=OPT also for POT.drink.GER
'It also can work well for drinking.'

- (12) ...kwe⁴nta⁴³ ri³?ya³a?⁴ ni² tʃo?⁴
for boil=OPT and eat.1P
'...for boiling and (for) us to eat'

In (11), the speaker is describing how to prepare a medicinal plant. In (12), the speaker is describing an edible green. The implied sense is that one can boil the green as a possible way to prepare it.

(from texts 'Etnobiología de kkoy yaka' and 'Etnobiología de kkweej chabì' by Francisco Fernández López.)

Ongoing projects

- I am writing a grammar and I have 8/16 chapters done. This is the main project I am working on with Triqui.
- Several projects have been offshoots of the grammar and these can all involve additional work or collaborations.

Project 1: Final particles (with Jürgen Bohnemeyer)

- Initial investigation into evidentiality with final particle use with my Triqui consultants.
- Probably fits in well into a chapter on pragmatics and discourse.
- Requires close work involving elicitation because it is exceedingly hard to examine meanings of these particles independently from a corpus.

Pragmatic complexity

Table 9: Final particles in Itunyoso Triqui

Particle	Meaning	Particle	Meaning	Particle	Meaning
nih ⁴	polar.Q	nanj ⁵	completed action	raj ¹	expresses uncertainty
unj ⁵	respectful	bej ¹	insistence (command)	nanh ³	expresses exclusivity of speaker's opinion
aj ³ ~aj ⁵	tag.Q	yu ³ be ³²	declarative	raj ³	hearsay
ah ³	negative tag.Q	ya ³ rij ⁵	declarative (respect b/w women)	sa ³ yoj ³	actually
sah ¹	alternative Q	hnej ⁵	declarative (respect b/w men)	ya ³ mej ³	NEG.DECL
runj ³ ~runj ⁵	hearsay Q	yoj ³²	conclusion	staj ³	NEG.emphatic
oh ¹	WH.Q	beh ¹	expresses strong obligation	manj ⁵	NEG.focus e.g. 'JOHN didn't do it.'
oj ¹	rhetorical.Q	toj ¹	corrective particle (like German 'doch')		
saj ⁵	2s.tag.Q (e.g. ya know?)				

This is just over half the final particles!

Pragmatic complexity

Ki³-ni³kaj² yya¹³ yyoh³ nan² tah⁴? A³si² ngo²+bbij¹ yyoh³ nan²
PERF-carry time.of year DIR male.elder.Q? or one+two year DIR
sah¹?

PART.ALTERNATIVE

‘Did it last one year, elder? Or several years?’

The word for ‘male elder’ is *taj⁴* /tah⁴/, but a glottal stop is appended to indicate that a question is being asked, resulting in *tah⁴* /ta?⁴/.

The final particle *sah¹* indicates an option out of a list of entities.

- a. ka²hanj²=soh¹ ni³kyaj⁵ maj³
POT.go=2.RESP Tlaxiaco compadre
'You will go to Tlaxiaco, compadre' ~ 'Go to Tlaxiaco, compadre.'
- b. ka²hanj²=soh¹ ni³kyaj⁵ mah³
POT.go=2.RESP Tlaxiaco compadre.Q
'Will you go to Tlaxiaco, compadre?'

This type of distinction is subtle.

In addition to so many final particles, pragmatics is also changing segmental content on address terms (and only on address terms – it's not a general suffix).

Project 2: Unification grammar of Triqui

The screenshot shows a Google Colab notebook interface. The title bar says "Christian's revised Triqui.ipynb". The menu bar includes File, Edit, View, Insert, Runtime, Tools, Help, and a "Saving..." status. The toolbar has icons for Code (+), Text (+), Comment, and Reconnect. The code cell contains the following Python code:

```
# String you wish to parse
# #####
# input = "nne3 tan4 sinj5 chi3lu3"
# nne3 tan4 sinj5 chi3lu3 -- 'the man's dog is sitting'

# Grammatical
#input = "bbij1 tan4=sij3 cha3kaj5 ta3"
#input = "bbij1 tan4 Juan cha3kaj5 ta3"

# Ungrammatical
#input = "bbij1 tan4=sij3 li4bru43 ta3"
#input = "bbij1 tan4 li4bru43 cha3kaj5 ta3"

# Parse the input and pretty print it
PrettyPrint(input)

List of tokens to parse: ['nne3', 'tan4', 'sinj5', 'chi3lu3']

(S[ ]
 (V[SUBCAT=['NP']] nne3)
 (NP[ANIM='+']
  (N[ANIM='+', LEX='-', SUBCAT='[]']
   (PRT[] tan4)
   (NP[ANIM='+']
    (N[ANIM='+', LEX='+', POSSD='-', SUBCAT='[]'] sinj5))
   (N[ANIM='+', LEX='+', POSSD='-', SUBCAT='[]'] chi3lu3))))
```

The output cell shows the parsed tree structure:

```
(S[ ]
 (V[SUBCAT=['NP']] nne3)
 (NP[ANIM='+']
  (N[ANIM='+', LEX='-', SUBCAT='[]']
   (PRT[] tan4)
   (NP[ANIM='+']
    (N[ANIM='+', LEX='+', POSSD='-', SUBCAT='[]'] sinj5))
   (N[ANIM='+', LEX='+', POSSD='-', SUBCAT='[]'] chi3lu3))))
```

At the bottom, a progress bar indicates "0s completed at 10:02 PM".

Creation of syntactic parser with Rui Chavez using NLTK on Google Collab.

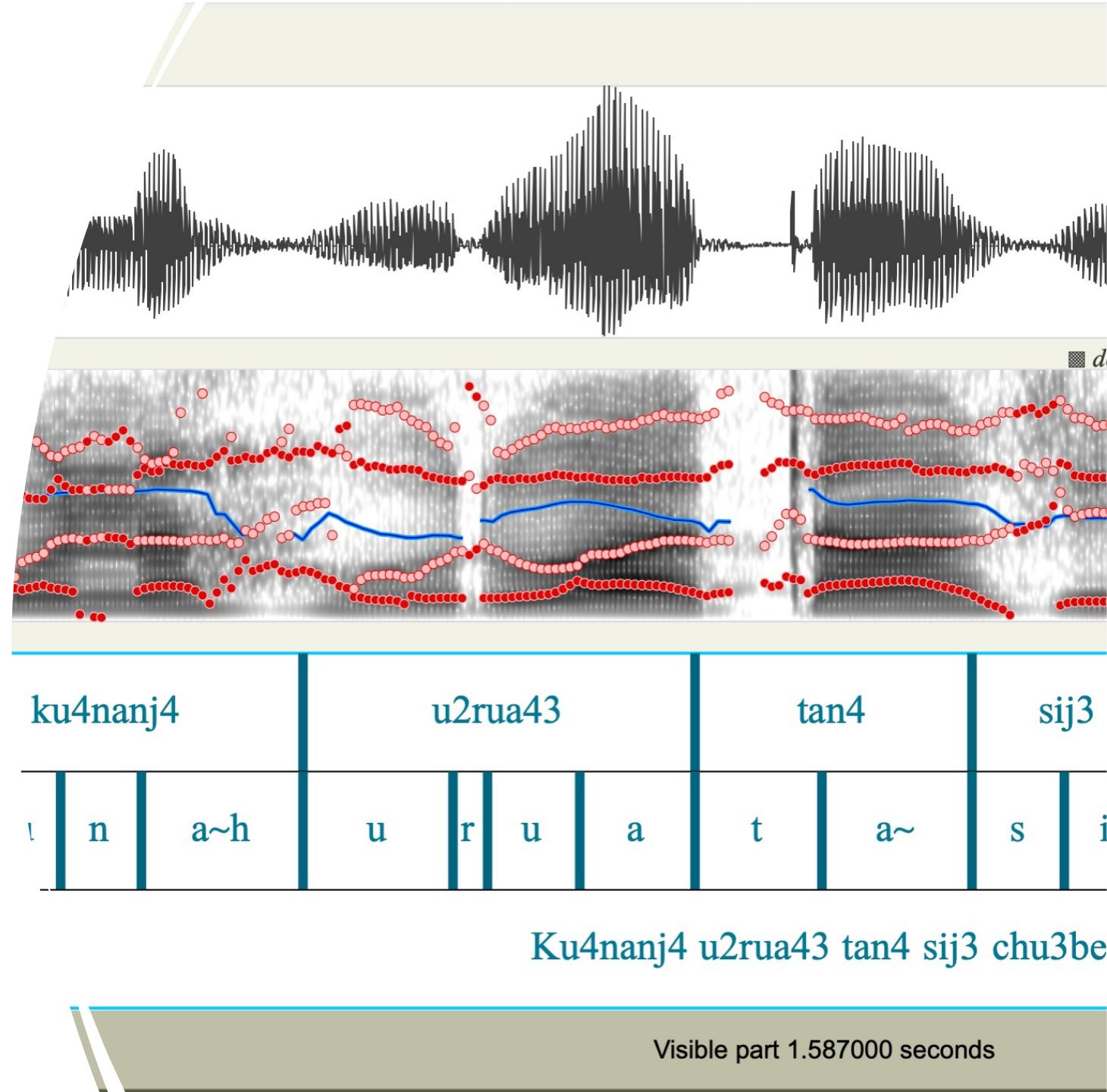
Write-up is collaborative using Overleaf.

Project 3: Phonetic variation in speech

I've done work on Triqui phonetics in the past (DiCanio 2008, 2010, 2012a, 2012b, 2012c, 2014; DiCanio and Hatcher 2018).

In 2023, I re-recorded 12 speakers producing all of the major contrasts in the language. This is 2,160 recordings of words in isolation and 2,160 recordings of words in carrier sentences.

These recordings and the larger text corpus create opportunities to explore variation in production.



Final project ideas

- Any of these ongoing projects could involve additional collaboration –or there could be projects that develop as offshoots.
- Close involvement with the community (literacy workshops, creation of pedagogical materials to teach literacy) also means there is a need for additional types of things that could be final projects:
 - An app that includes the dictionary – currently in XHTML via FLEX.
 - A digital keyboard for Triqui texting (c.f. Mateo Toledo's work)
 - Language games for teaching literacy (paper or digital)
 - Illustrations for existing stories/texts for publication with Storyweaver.



Chungwì Snáhánj Nih
El mundo triqui.
Palabras de San Martín Itunyoso

