Direct affix borrowing: Evidence from two Mayan perfect suffixes

James Tandy

2 August 2022

Workshop: “The Typology of Contact-Induced Changes in Morphosyntax” at ICHL25

Overview

- Two Mayan perfect suffixes spread areally
  - *-ɓil* in the Lowlands
  - *-maχ* in the Cuchumatán highlands of Guatemala
- Likely direct affix borrowing
- Focusing on outcomes of *-maχ*
  - Functional change
  - Multiple exponence
  - Borrowing of matter without pattern

Outline

- Overview of direct affix borrowing
- Mayan background
- Brief discussion of *-bil*
- Analysis of *-maχ*
- Direct vs. indirect borrowing of the perfect
- Linguistic and sociolinguistic factors

Direct affix borrowing

- **Direct** vs. **indirect** affix borrowing
  - Weinreich (2011 [1953]) among others; overview in Seifart (2015)
- Indirect affix borrowing
  - Recipient language borrows complex words
  - Affix becomes (semi)productive
- Direct affix borrowing
  - Recipient language speakers familiar with donor language
  - Borrow the affix (as such) directly

Direct affix borrowing

- Direct borrowing originally assumed to be nonexistent
  - Paul (1891 [1880], cited in Seifart 2015)
- ...or at least rare
  - Weinreich (2011 [1953]: 50)
- Borrowing form of inflectional affixes is especially rare or at least marked
  - Thomason and Kaufman (1988), Matras and Sakel (2007)
  - Gardani (2020: 272-273) - attested, but derivation > inflection

Direct affix borrowing

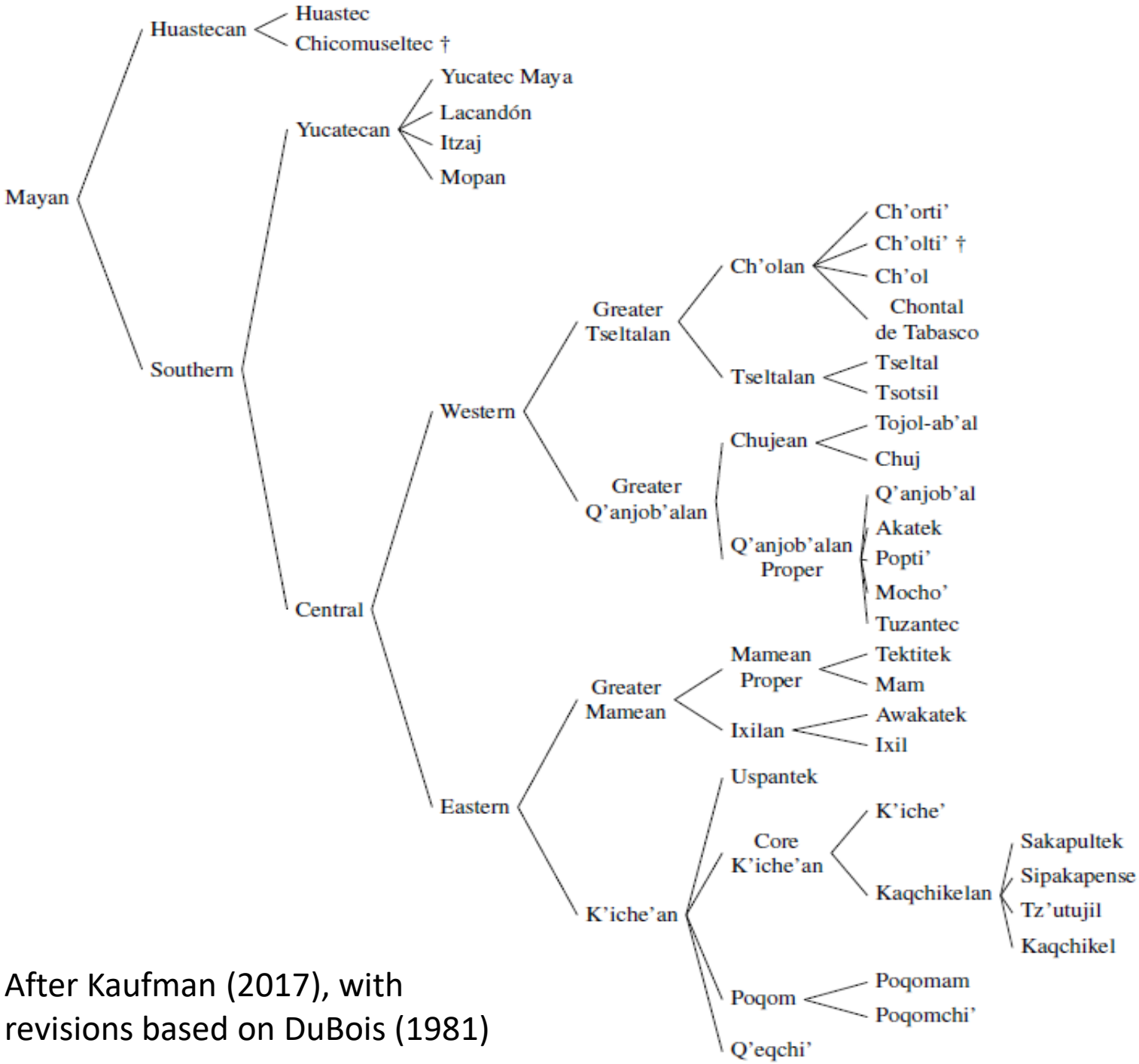
- Seifart (2015) argues it is much more common
- Endpoints on a scale
  - # of loanwords
  - Knowledge of donor language

Direct affix borrowing

- Structural similarity facilitates influence between languages (Bartoli 1927: 90)
  - Typological similarity (Winford 2005: 387, Thomason 2015: 29)
  - Incompatible “phonemic structure of morphemes” can block borrowing (Weinreich 2011[1953]: 60)
- Ex., dialect borrowing (Weinreich)
- Enhanced with related languages (e.g. Law 2013)

Direct affix borrowing

- Sociolinguistic factors
  - Bilingualism (Seifart 2015: 515, Thomason 2015)
  - Language loyalty (Matras 2015: 58-59, 66)
  - Taboos against lexical borrowing (Seifart 2015: 529)
  - Relative influence of bilingual speakers (Seifart 2015: 515)



After Kaufman (2017), with revisions based on DuBois (1981)

Mayan

- Prior work on contact within Mayan (summary Law 2017)
- Linguistic areas
  - Maya Lowlands (Justeson et al. 1985, Law 2014)
  - Huehuetenango Sprachbund, highland Guatemala (Barrett 2002)
  - Sacapulas Corridor (this talk)

Mayan

- All distinguish **root** and **derived** transitive verbs (RTV/DTV)
- All mark perfect aspect as a suffix
- Voice alternation in perfect
  - Active voice (Kaufman: “perfect status”)
  - Passive voice (Kaufman: “perfect participle”)

Itzaj

	Root TV	Derived TV
Active	*-m-ah*	*-m-ah*
Passive	*-ɓil*	*-ɓil*

- Hofling (2017: 705, 709)

Itzaj

	Root TV	Derived TV
Active	*u-ts'a(h)-**m-ah*** E3S-give-PERF-COM 's/he has given'	*u-hok'-sə-**m-ah*** E3S-leave-CAUS-PERF-COM 's/he has taken it out'
Passive	*han-**ɓil*** eat-PART 'eaten'	*ɓi-sə-**ɓil*** go-CAUS-PART 'brought'

- Hofling (2000: 16, 26, 171)

K’iche’ perfect paradigm

	Root TV	Derived TV
Active	*-o:m/-u:m*	*-:m*
Passive	*-o:m/-u:m*	*-:m*

- Larsen (1988: 234, 241)
- Active/passive distinguished by person marking

-bil

- Passive perfect participle
- Present in multiple subgroups
  - Cholan-Tseltalan, Yucatecan, Q’anjob’alan, Q’eqchi’ (K’iche’an)

-ɓil

- Kaufman (2015: 307) reconstructs to proto-Mayan
  - Active *-*ʔm*
  - Passive *-*ɓil*
- Alternative: reconstruct *-*ʔm* for both

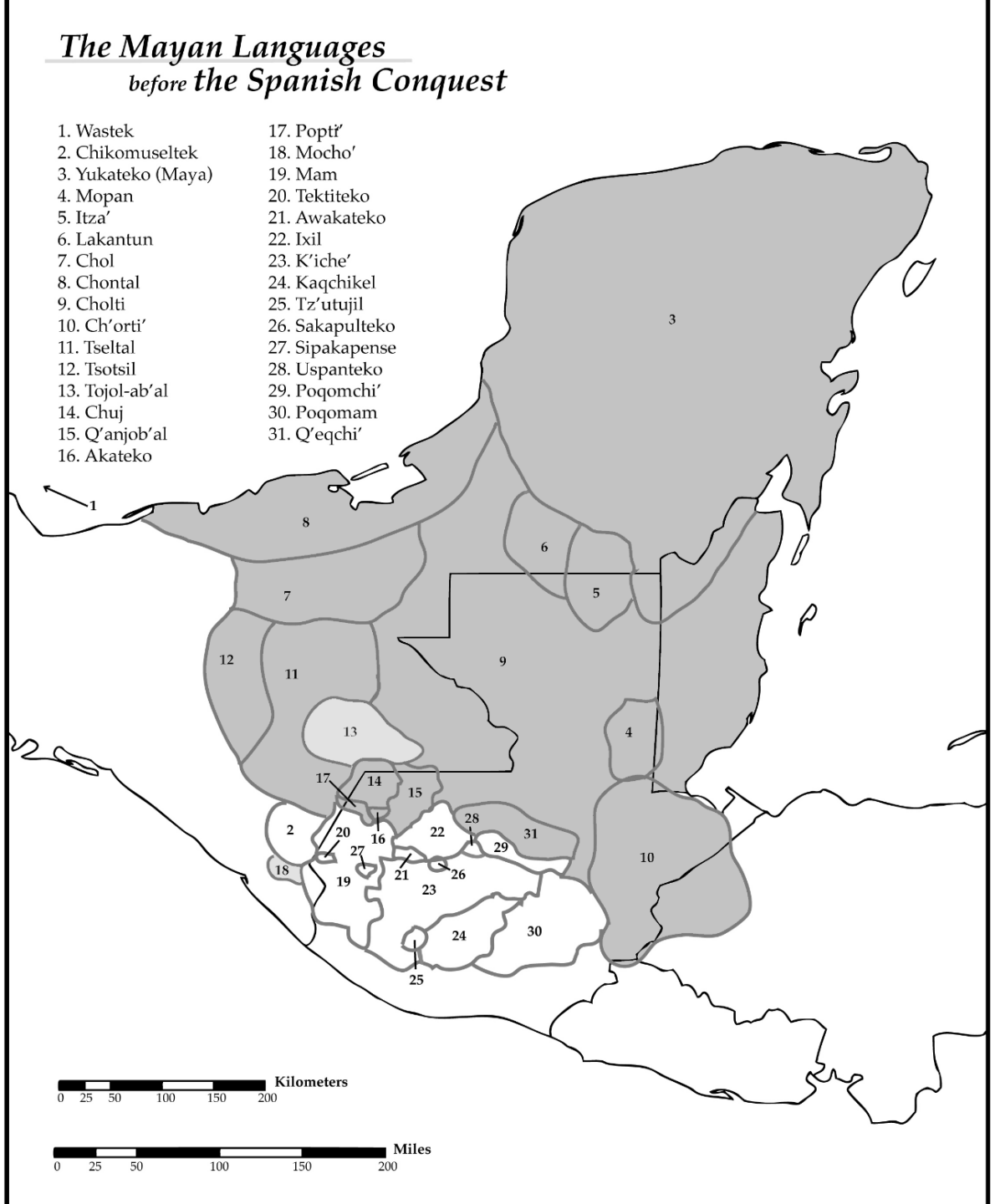
Itzaj

	Root TV	Derived TV
Active	*-m-ah*	*-m-ah*
Passive	*-ɓil*	*-ɓil*

- Hofling (2017: 705, 709)

-bil: My analysis

- Languages with *-bil* are geographically adjacent
- All connected to the Lowland Mayan linguistic area
  - Justeson et al. (1985), Law (2014)
- Probably diffusion



Geographic distribution

Base map: Law (2014)

Dark grey: *-b'il*
Light grey: *-Vb'al*

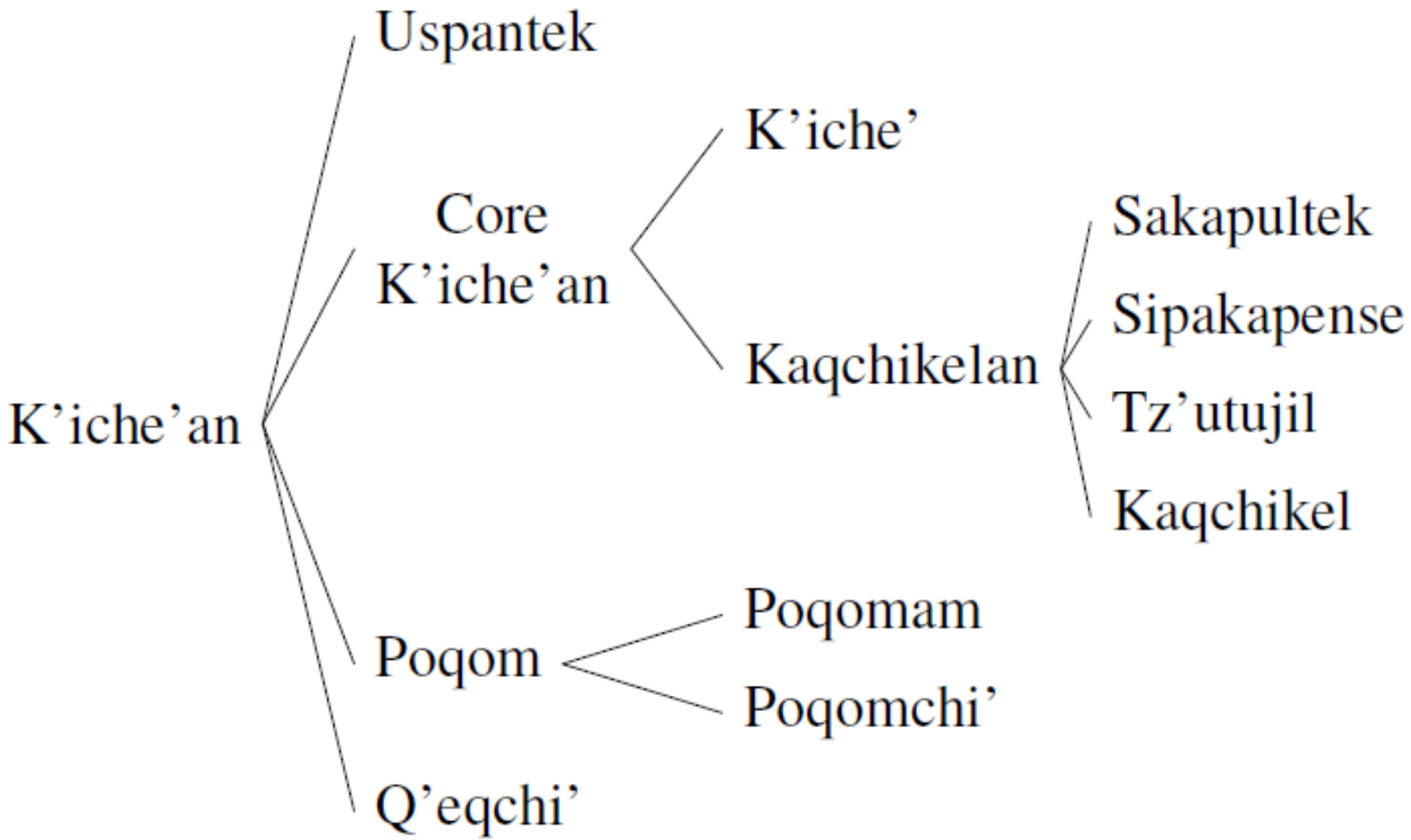
-ɓil: My analysis

- Further evidence presented in Tandy (under review)
  - Little variation in *-ɓil* cognates
  - *-ɓil* could be multimorphemic - consistent with late origin
  - Language-internal reasons to reconstruct **-ʔm*

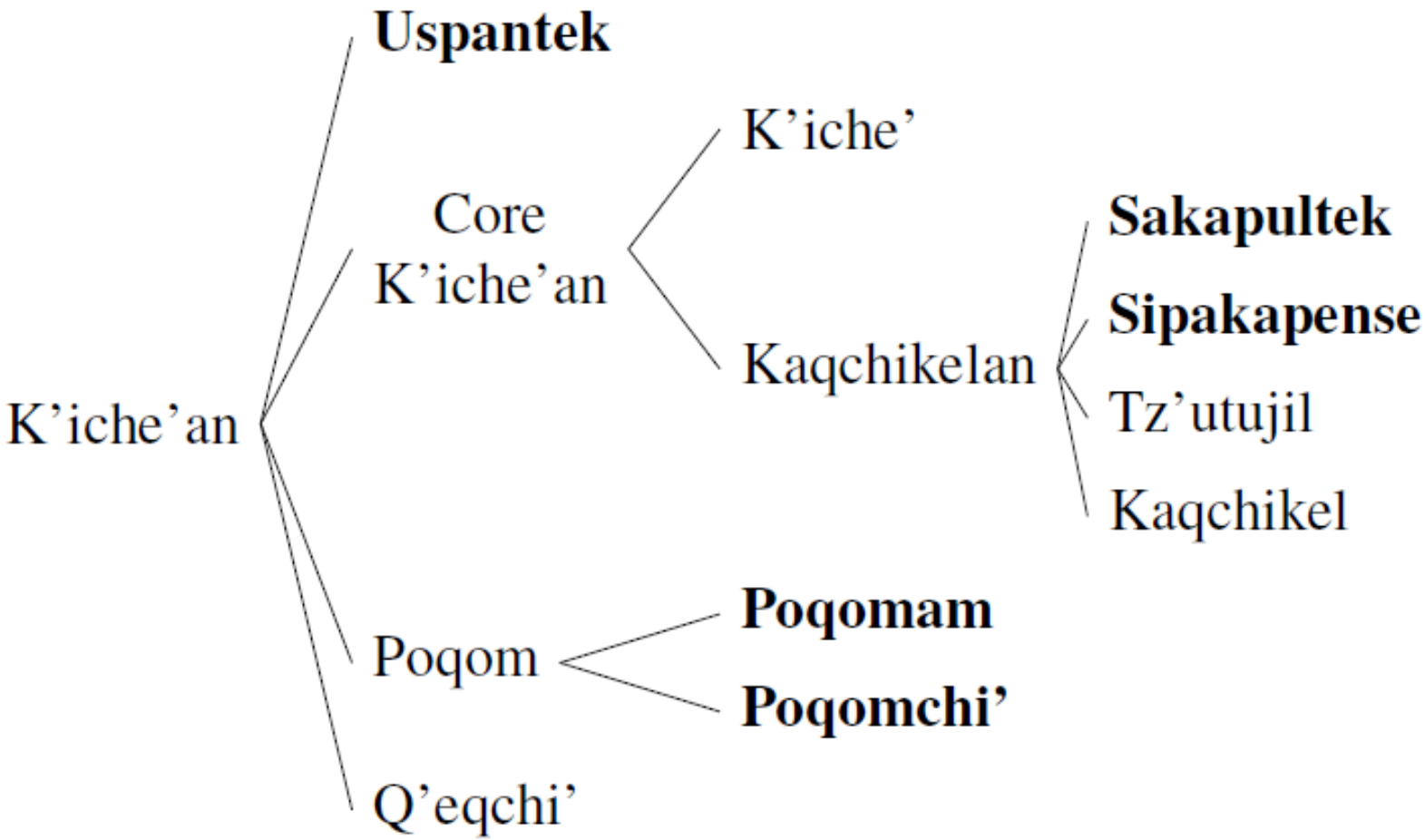
-maχ: Overview

- Present in several K'iche'an languages, northern Mam, and Teko
- From original *-*ʔm*
- Yucatecan languages have *-m-ah* as (active) perfect aspect marker
  - Probably unrelated

K’iche’an subgrouping



Languages with *-maχ*



-maχ: My analysis

- Poqom innovated *-Vm-aχ* as passive perfect form
- *-maχ* spread westward along salt trade route

Perfect suffixes in K’iche’an

Subgroup	Language	Active		Passive	
		RTV	DTV	RTV	DTV
Core K’iche’an	K’iche’	*-oːm/-uːm*	*-V_1m*	*-oːm/-uːm*	*-V_1m*
	Sakapultek	*-V_Rm(aχ)*	*-m(aχ)*	*-V_Rm(aχ)*	*-m(aχ)*
	Sipakapense	*-maχ*	*-maχ*	*-maχ*	*-maχ*
	Kaqchikel	*-om/-um*	*-m*	*-om/-um*	*-m*
	Tz’utujil	*-oːn/-uːn*	*-V_1n ~ -oːn*	*-oːn/-uːn*	*-Vn ~ -oːn*
Poqom	Poqomam	*-V_Rm*	*-m*	*-oːχ/-uːχ*	*-maχ*
	Poqomchi’	*-V_Rm, -om*	*-m*	*-oːχ/-uːχ, -$V_R$maχ*	*-maχ*
Uspanteko		*-oːm/-Vːm*	*-oːm/-Vːm*	*-V_Rl*	*-l*
Q’eqchi’		*-(o)m*	*-(o)m*	*-ɓil*	*-ɓil, -mɓil*

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	Poqomchi’	*-V_Rm, -om*	*-m*	*-oːχ/-uːχ, -$V_R$maχ*	*-maχ*
Uspanteko		*-oːm/-Vːm*	*-oːm/-Vːm*	*-V_Rl*	*-l*
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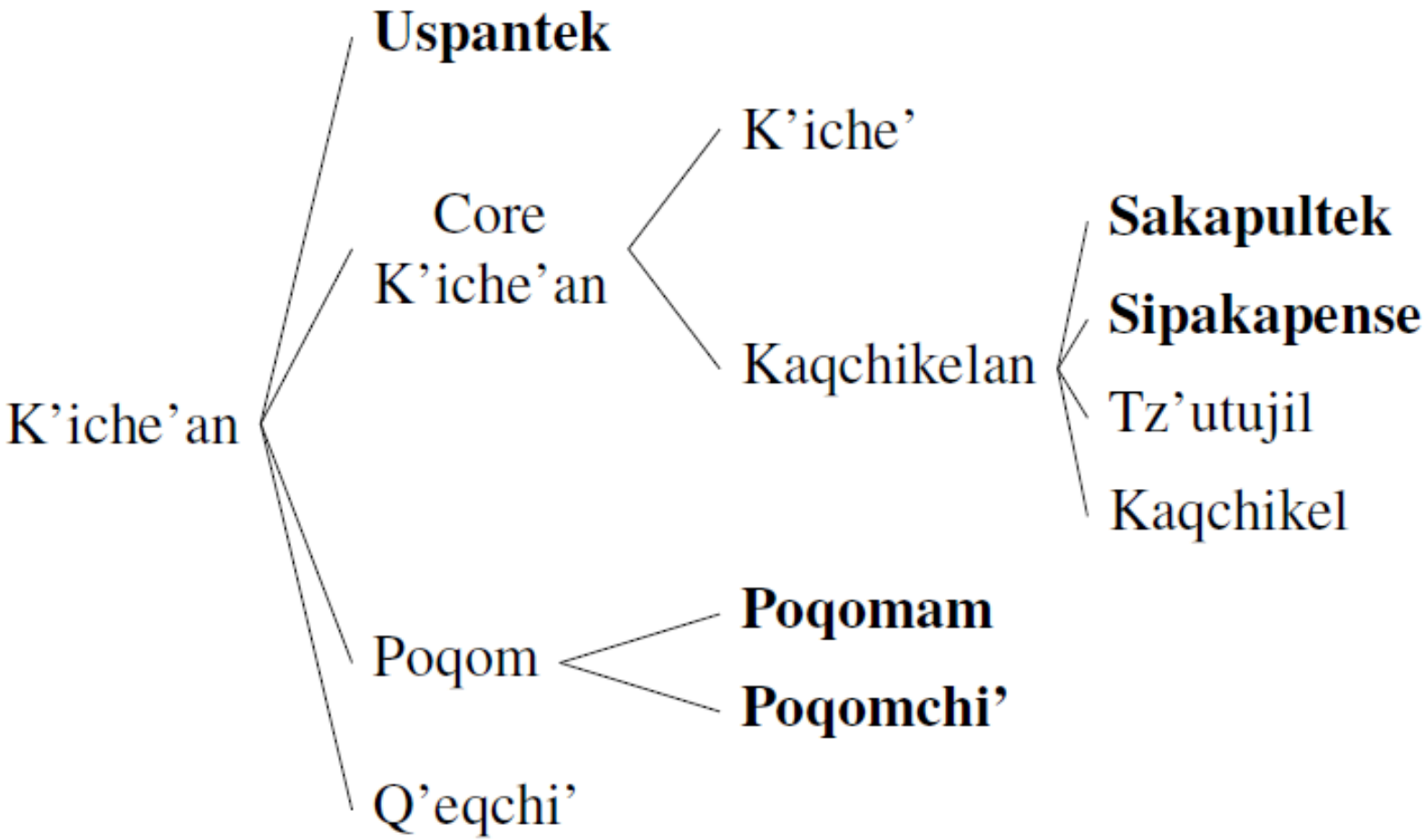
Not shared innovation



-(V)maχ in Poqomchi’

ACTIVE (RTV)

*Ø-a-toχ-**om***

A3S-E2S-pay-PERF

‘You have paid him/her.’

PASSIVE (RTV)

*Ø-toχ-**omaχ***

A3S-pay-PERF.PASS

‘S/he has been paid.’

(Mó Isém 2006b: 184, 187)

-(V)maχ in Poqomchi’

ACTIVE (RTV)

Ø-a-toχ-om

A3S-E2S-pay-PERF

‘You have paid him/her.’

PASSIVE (RTV)

*Ø-toχ-om-**aχ***

A3S-pay-PERF-PASS

‘S/he has been paid.’

(Mó Isém 2006b: 184, 187, my analysis)

Proto-Eastern Mayan perfect paradigm

	Root TV	Derived TV
Active	**-o-ʔm/-u-ʔm*	**-ʔm*
Passive	**-o-ʔm/-u-ʔm*	**-ʔm*

- Following Kaufman (2015: 571)

Proto-K’iche’an perfect paradigm

	Root TV	Derived TV
Active	**-o:m/-u:m*	**-:m*
Passive	**-o:m/-u:m*	**-:m*

- V? became long vowel before a consonant

Pre-Poqom: Stage 1

	Root TV	Derived TV
Active	**-om*	**-m*
Passive	**-om-**ɑχ***	**-m-**ɑχ***

- Modern Poqom retains ***-χ*** passive suffix with derived TV
- *-ɑχ* passive also seen in K'iche' ***-t-ɑχ*** and Uspanteko ***-s-ɑχ***

Pre-Poqom: Stage 2

	Root TV	Derived TV
Active	**-om*	**-m*
Passive	****-o:χ ~ -u:χ*** **-omaχ*	 **-maχ*

- ****-o:χ ~ *-u:χ*** was a gerund suffix of RTV in proto-K'iche'an
- Retains this function in Poqom and other K'iche'an languages
- [ɓan-**oχ** si:ʔ] 'making firewood' (Larsen 1988: 268)
- Gerund > patient nominalization > passive perfect participle

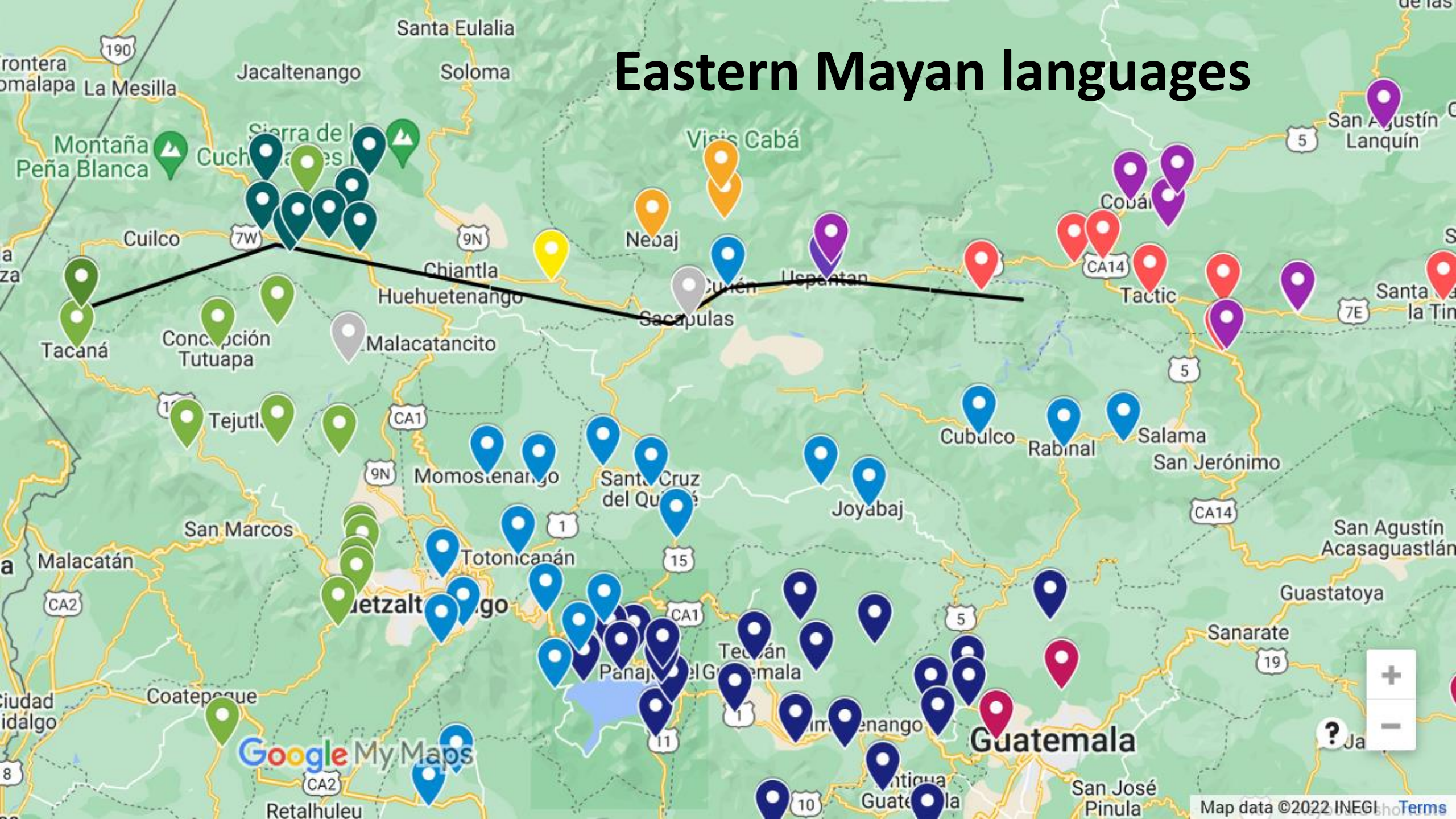
Modern Poqomchi’

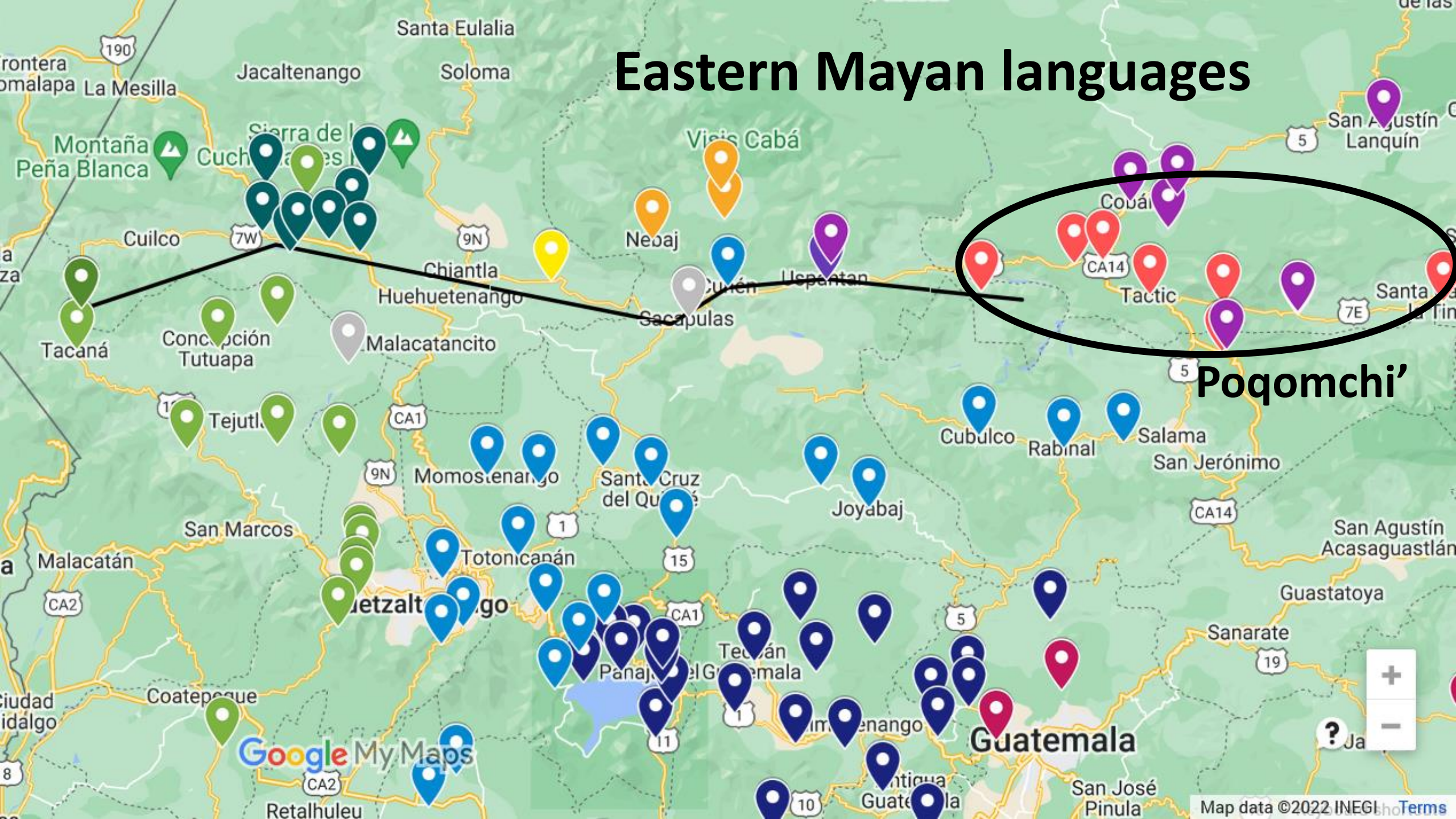
	Root TV	Derived TV
Active	*-V_Rm ~ -om*	*-m*
Passive	*-o:χ ~ -u:χ* *-$V_R$maχ*	 *-maχ*

Spread of *-maχ*

- *-maχ* was probably borrowed from Poqom at Stage 1
  - Before the recruitment of *-o:χ* with RTVs
  - More frequent
- Borrowed into Uspantek, Sakapultek, Sipakapense, northern Mam, and Tektiteko

Eastern Mayan languages

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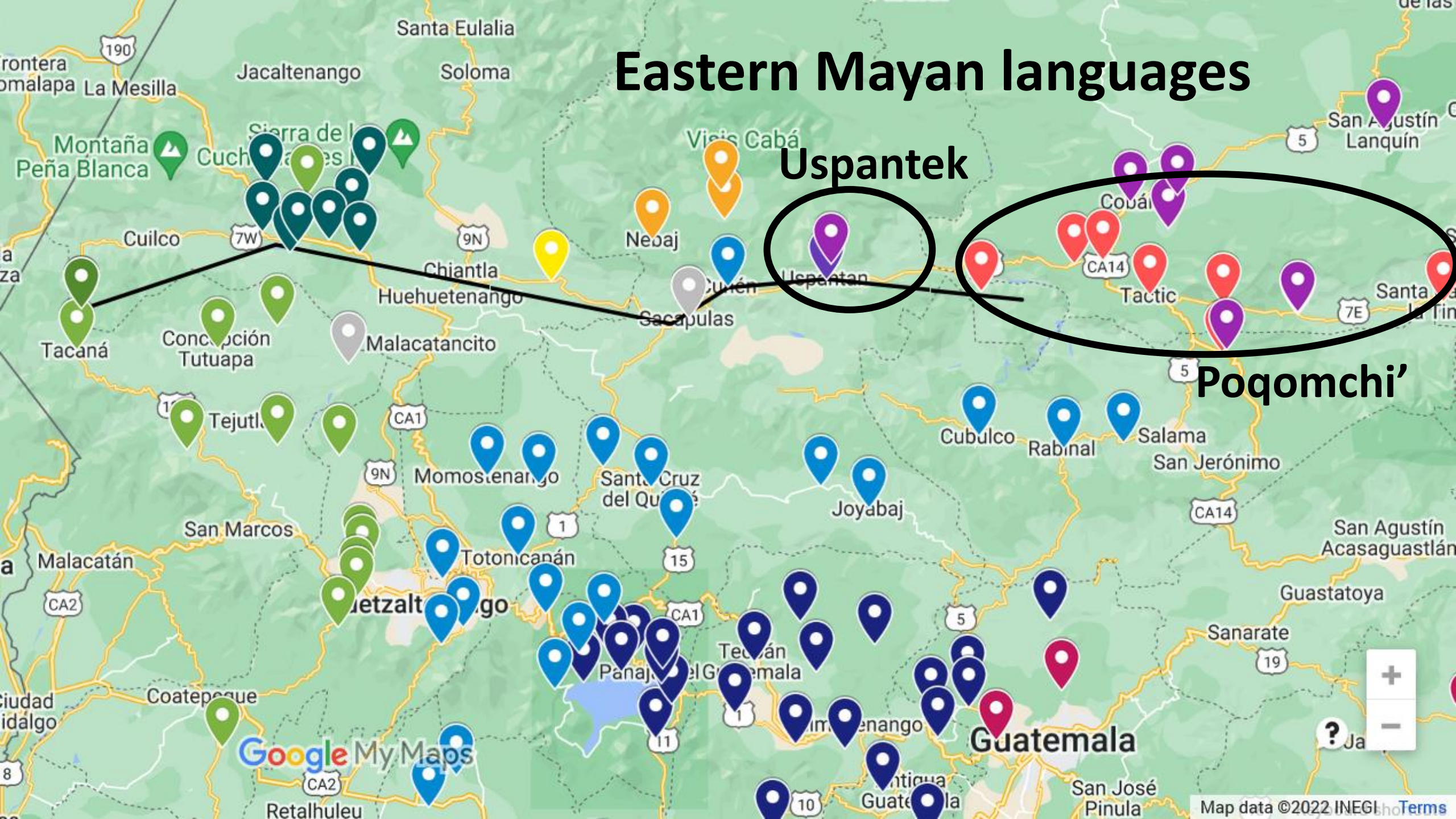
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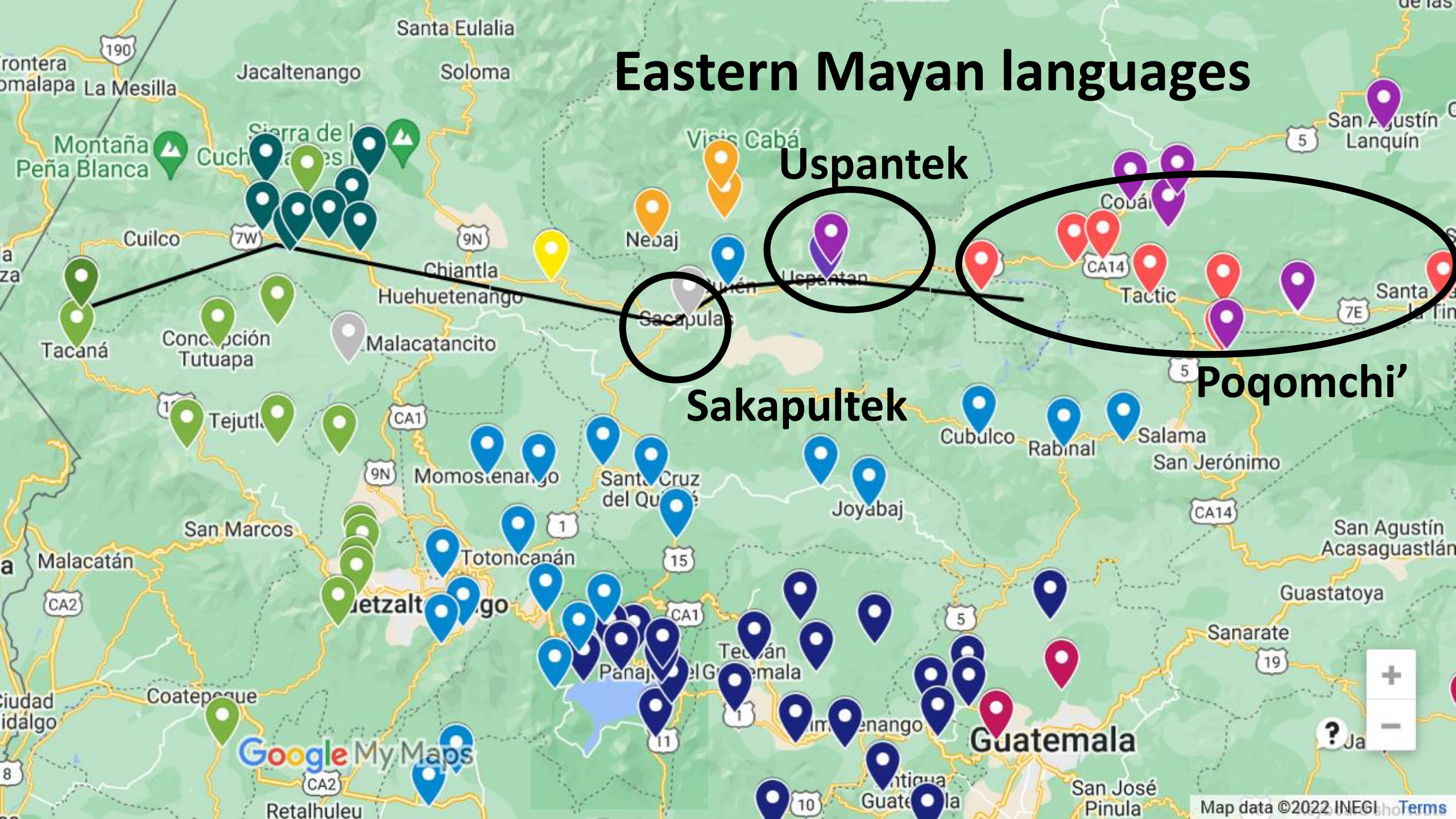
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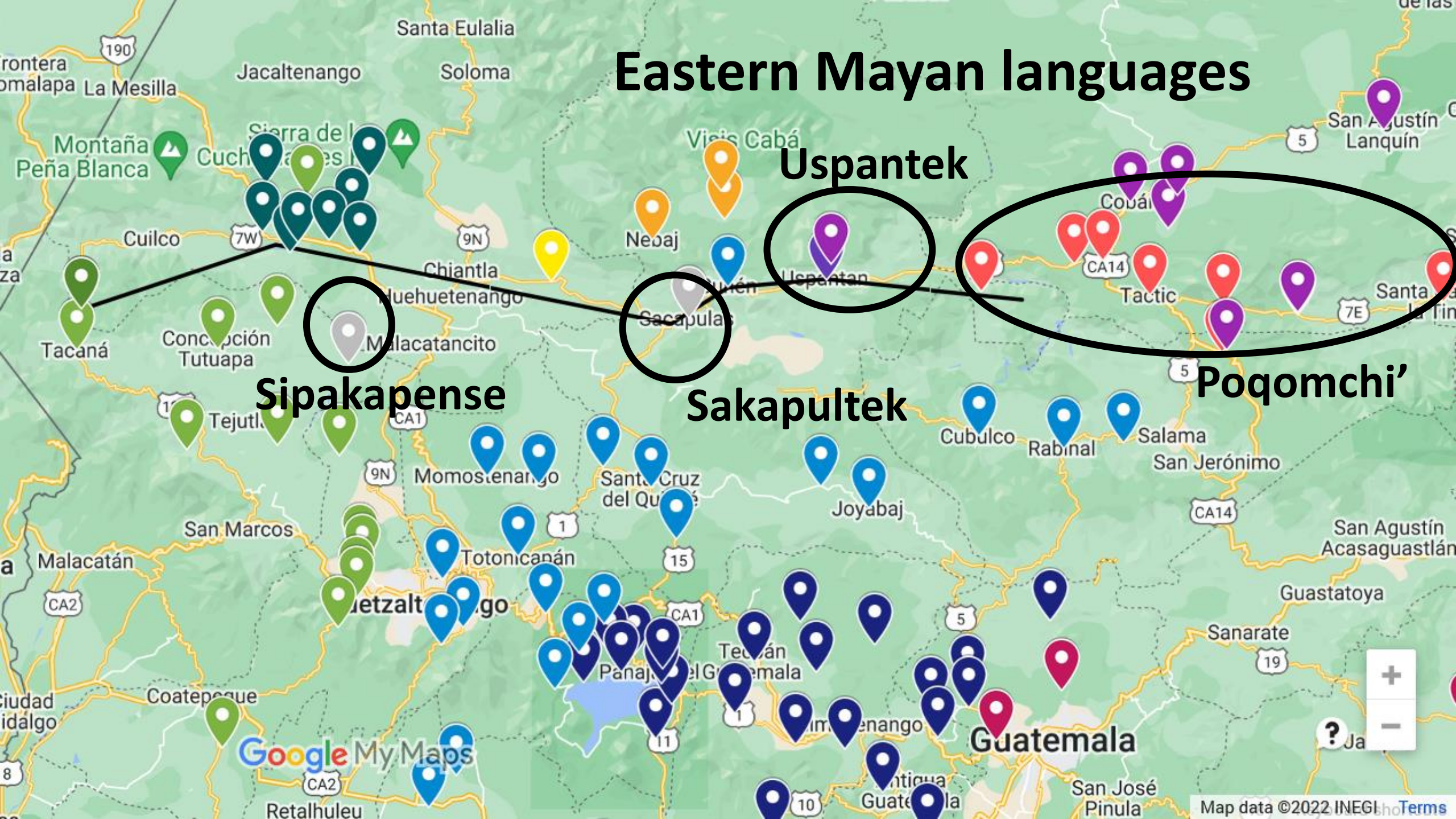
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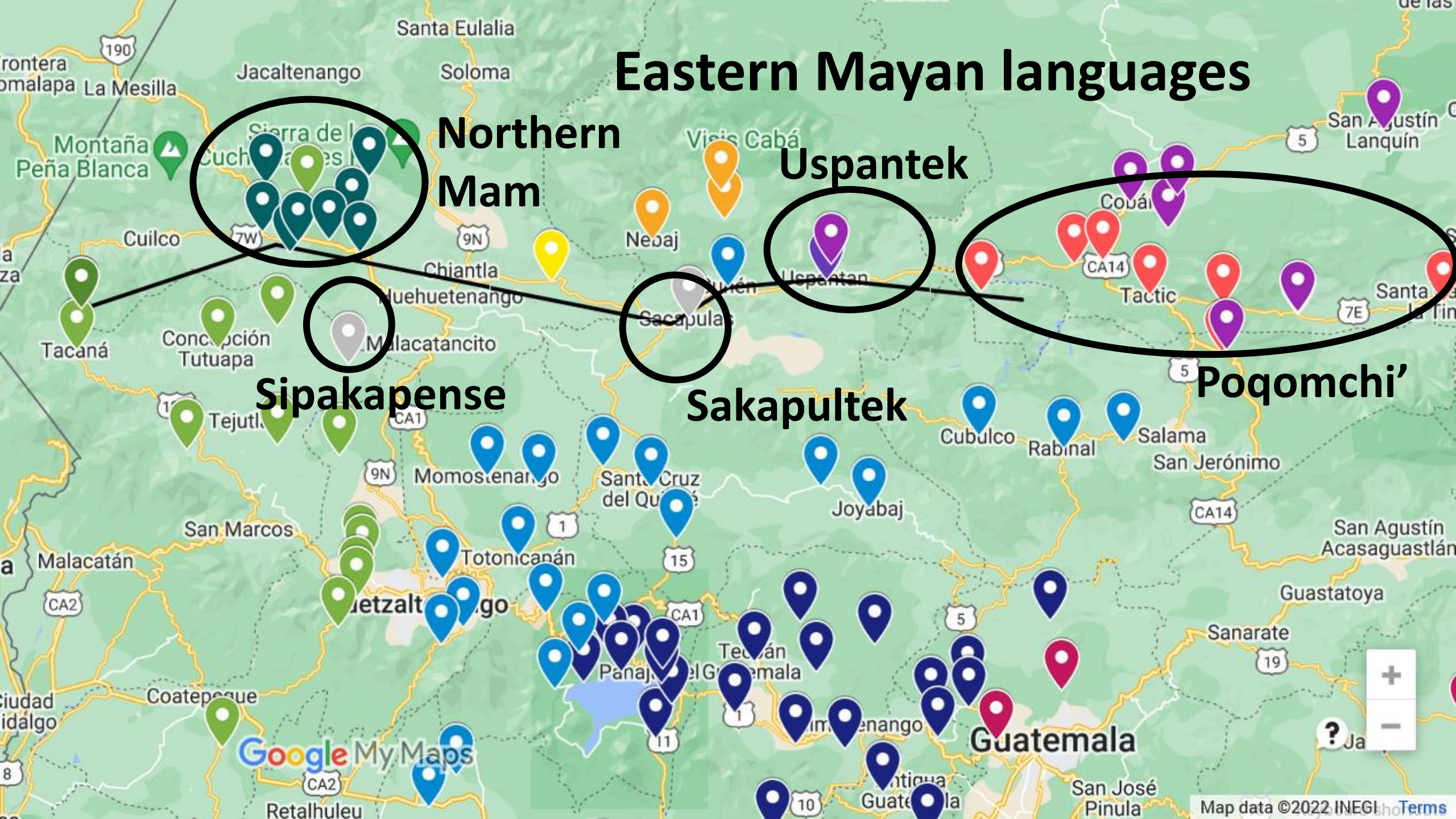
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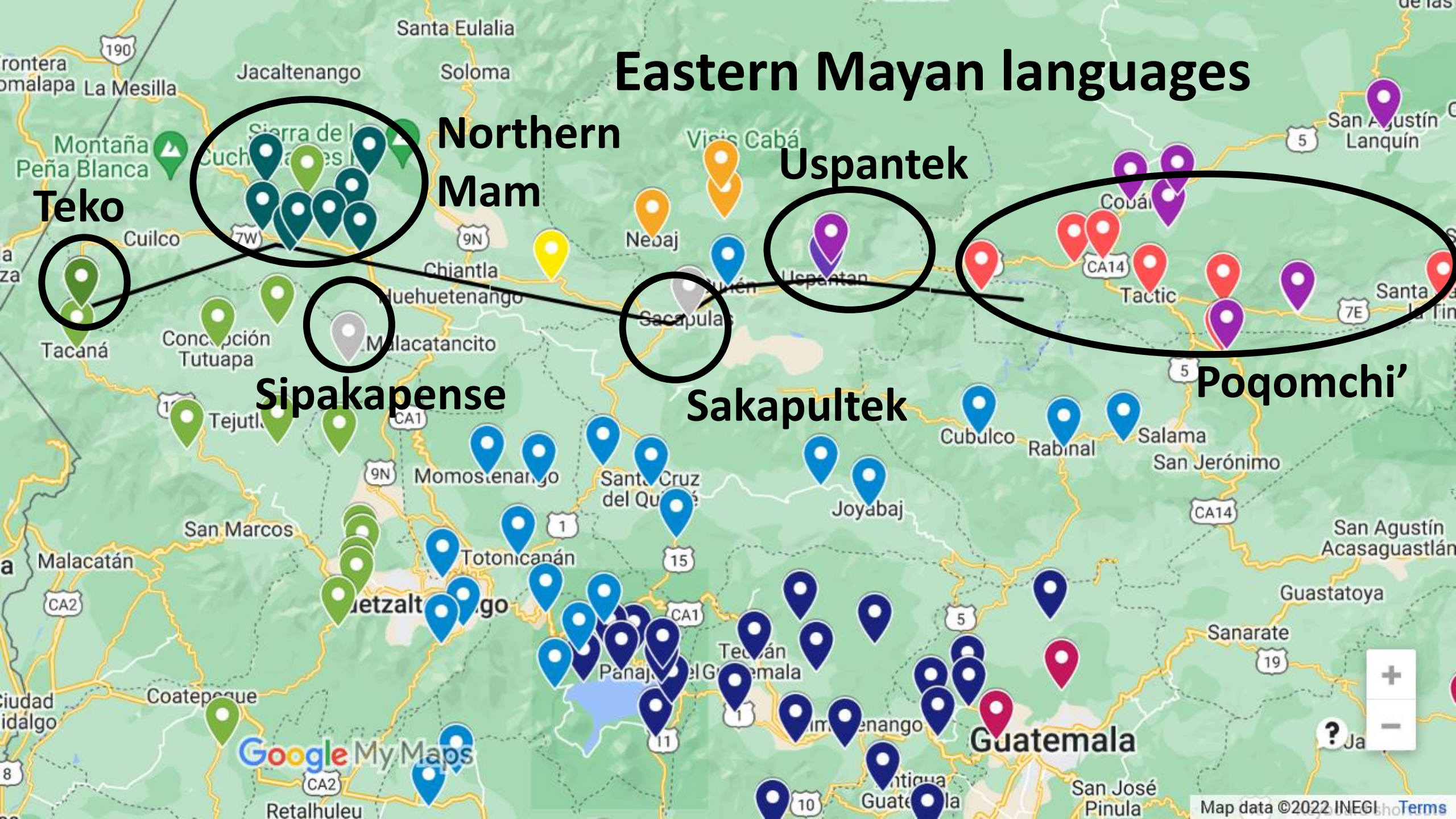
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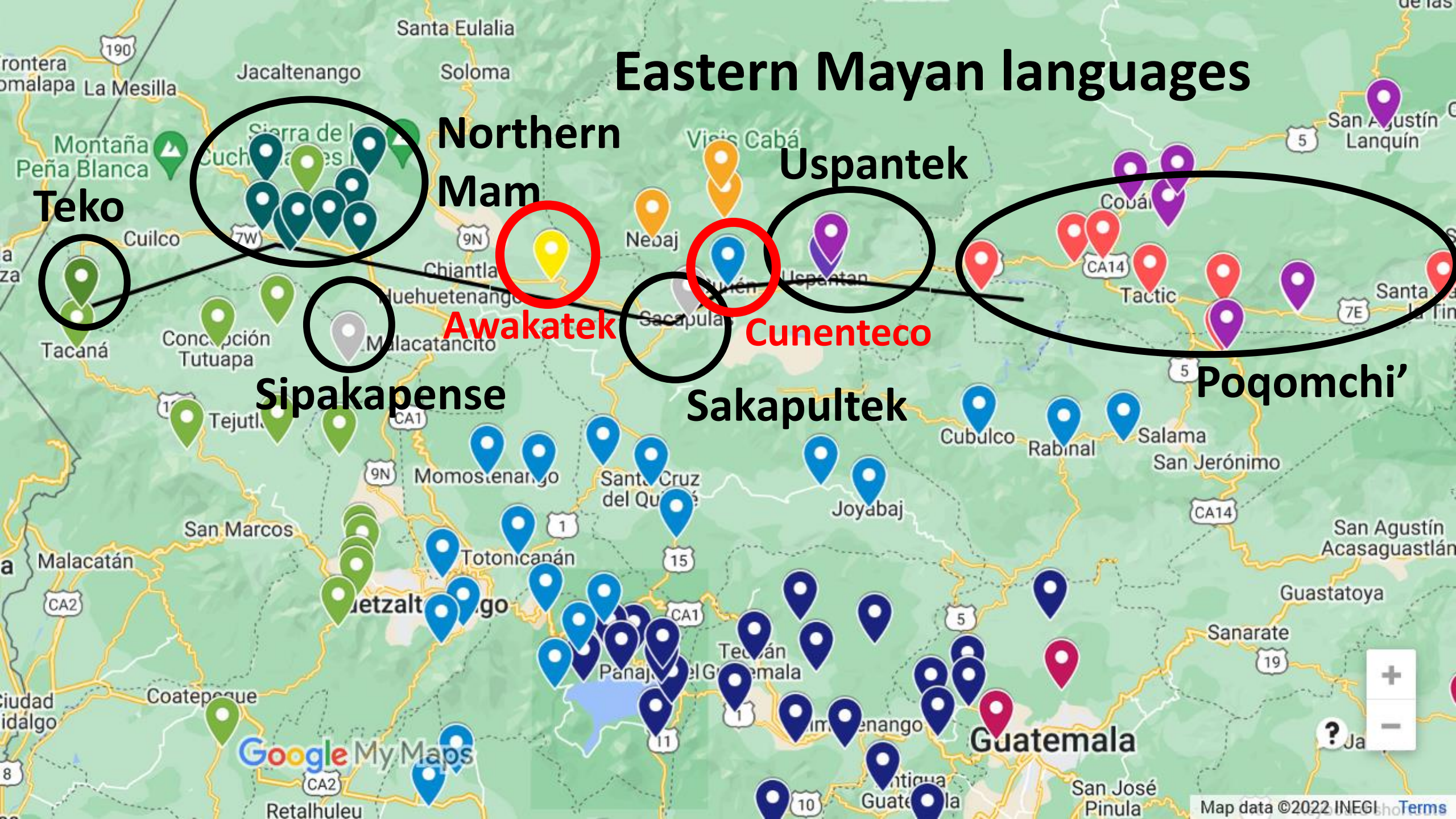
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Soloma
La Mesilla
Montaña Peña Blanca
Cuilco
Chiantla
Huehuetenango
Nebaj
Sacapulas
Uspantan
Cobán
Tactic
Santa Cruz del Quiché
Joyabaj
Cubulco
Rabinal
Salama
San Jerónimo
Momostenango
Totonicapán
San Marcos
Malacatán
Tejutla
Malacatancito
Concepción Tutuapa
Tacaná
Coatepeque
Retalhuleu
Guatemala
Sanarate
Guastatoya
San Agustín Acasaguastlán
San José Pinula
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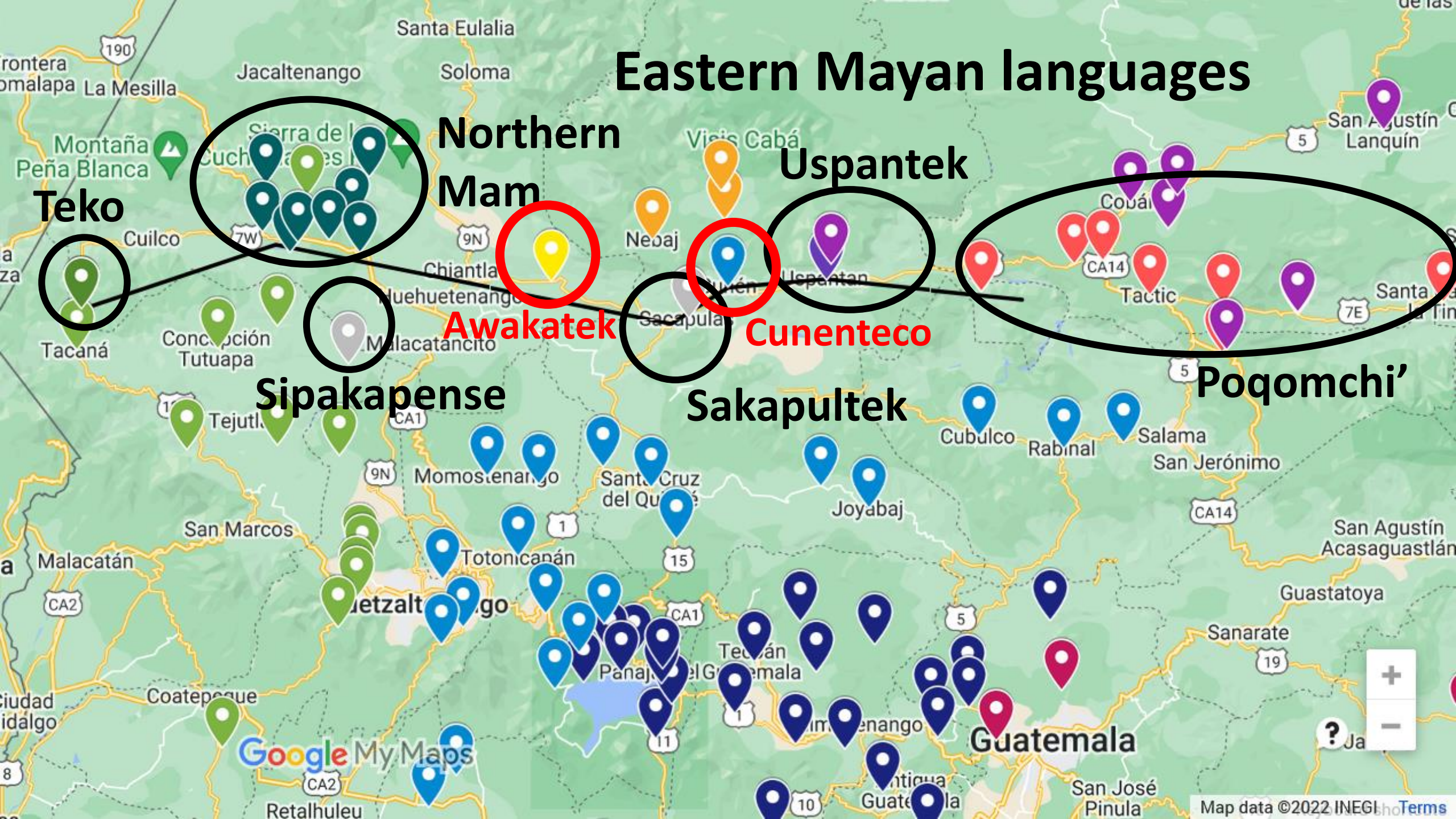
Terms

Spread of *-maχ*

- This pathway follows the Cuchumatán mountain range
- “Sacapulas Corridor”
- Salt flats near Sacapulas were important for trade
  - People came from Verapaz (Poqomchi’) to work
  - Du Bois (1981: 11-15), Hill and Monaghan (1987: 5, 75)
- 1530 Uspantán alliance opposed Spanish
  - Uspantán, Cunén, Cotzal (Ixil), Sacapulas, Verapaz (Poqomchi’)
  - Lovell (2015: 67)

Spread of *-maχ*

- Other linguistic evidence
- Poqom/Uspanteko shared features (Campbell 1977: 71-72)
  - 2pl = 2sg + plural clitic
  - Use of *wi-* existential
  - Use of *-k* after positional *-Vl* suffix
- Tone in Uspanteko and Cunén (Perry Wong, p.c.; Barrett 2022)


Eastern Mayan languages
Northern Mam
Teko
Awakatek
Uspantek
Cunenteco
Sipakapense
Sakapultek
Poqomchi’
Santa Eulalia
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Terms

Outcomes of *-maχ*

- Borrowing of *-maχ* had (at least) three unexpected outcomes
- Reanalysis as verbal passive in Uspantek
- Double-marking in Northern Mam
- Extension from passive to active voice in Sakapultek/Sipakapense
  - Barrett (2022): “Northern Kaqchikelan”

Outcomes of *-maχ:* Uspantek

- Uspantek: *-maχ* “completive passive”

*ʃ-Ø-kun-**maχ**-ik*	*aruk’ re’*	*ʃtemɓa*	*oq’eχ*
COM-A3S-cure-PAS-SUF	PART PART	finished	crying

‘After being cured, she stopped crying’

(Can 2006: 258)

- Uspantek perfect suffix is *-(V_R)l* (Can 2006: 241)

Outcomes of *-maχ:* Mam

- All varieties of Mam have *-ʔn* participial suffix
- Northern Mam: *-maχ* ‘emphatic’ suffix added to participle

aq’na-ʔn	*aq’na-ʔn-**maχ***
work-PART	work-PART-PART
‘worked’	‘worked’

(England 1983: 129)

Outcomes of *-maχ:* Mam

- Northern Mam shows double-marking
- Perfect participle has two exponents: *-ʔn* and optional *-maχ*
- *-ʔn* is cognate with K'iche'an *-Vm* (Kaufman 2015: 288)
- "Reinforcement multiple exponence" (Harris 2017: 90)
  - May happen if original affix is "difficult to parse" (Ibid, 168)
  - Easier to hear, less ambiguous (Ibid, 238)
  - See also Heath (1998) on recruitment

Outcomes of *-maχ:* Northern Kaqchikelan

- Sakapultek and Sipakapense use *-maχ* in active and passive voice
- Poqom: Passive only

Sakapultek and Sipakapense

	Root TV	Derived TV
Active	*-(V)maχ*	*-maχ*
Passive	*-(V)maχ*	*-maχ*

- Sakapultek uses *-(V)m* phrase-medially - not conditioned by voice

Outcomes of *-maχ*

- Sakapultek and Sipakapense use *-maχ* in active and passive voice
- Poqom: Passive only
- Two ways to approach this:

1. Passive *-maχ* borrowed, then extended to active voice
2. Form of *-maχ* was borrowed, but fit into original pattern

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Pre-Poqom: Stage 1

	Root TV	Derived TV
Active	**-om*	**-m*
Passive	**-om-**aχ***	**-m-**aχ***

- *-maχ* is specifically passive form

Proto-Sakapultek-Sipakapense (version 1)

	Root TV	Derived TV
Active	**-Vm*	**-m*
Passive	**-Vm*	**-m*

- Inherited from proto-K’iche’an

Proto-Sakapultek-Sipakapense (version 1)

	Root TV	Derived TV
Active	**-Vm*	**-m*
Passive	****-Vmaχ***	****-maχ***

- *-maχ* passive perfect participle borrowed from Poqom

Proto-Sakapultek-Sipakapense (version 1)

	Root TV	Derived TV
Active	***-Vmaχ***	***-maχ***
Passive	**-Vmaχ*	**-maχ*

- Passive form extended to active voice

Outcomes of *-maχ*

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Proto-Sakapultek-Sipakapense (version 2)

	Root TV	Derived TV
Active	**-Vm*	**-m*
Passive	**-Vm*	**-m*

- Speakers recognized that the suffix in active and passive voice were the same
- Distinguished only by person marking

Proto-Sakapultek-Sipakapense (version 2)

	Root TV	Derived TV
Active	***-Vmaχ***	***-maχ***
Passive	***-Vmaχ***	***-maχ***

- Speakers retained original paradigm: active/passive identical
- Borrowed form *-maχ* filled this paradigm - “relexification”
- All at once
- MAT-borrowing without PAT-borrowing (per Matras and Sakel 2007)

Explaining -*maχ*

- “Matter replication of tense/aspect markers is **quite rare**” (Matras and Sakel 2007: 844, my emphasis)
- Why did it happen in this case?

Explaining -*maχ*

- Phonologically heavier
  - Maybe perceptually salient
- Perfect spans inflection/derivation
  - Derivation easier to borrow
- Could have been socially marked somehow
  - Ultimately speculation

Direct or indirect borrowing?

- Not either/or (Seifart 2015)
- Affix may or may not accompany high lexical borrowing
  - Q'eqchi' borrowed verbs from Cholan (Wichmann and Hull 2009)
  - Tsotsil argued to have very few loan verbs (Brown 2009)
- But perfect suffix is invariably productive with native roots
- Sometimes level of borrowing is unclear
  - K'iche'an languages phonologically similar

Direct or indirect borrowing?

- **However**, increased similarity facilitates direct borrowing
- Bilingual speakers recognize same verb in both languages
- More likely to transfer affixes
- Enhanced by overall typological similarity

- Note from Michaelis (earlier today)
  - MAT-borrowing more typical of conscious **adoption** by adolescent learners, vs. PAT-borrowing from bilingual children
  - But this could be offset by the similarity of the two languages

Linguistic factors

- Mayan languages are structurally similar
  - Perfect always a suffix
  - Perfect paradigm structurally same (RTV/DTV, active/passive)
  - Agglutinating - low integration of morphemes

Sociolinguistic factors

- Relaxed language boundaries before Conquest
  - Identity more tied to locality than to language
  - Law (2014: 159) discusses this in Lowlands
- Heavy bilingualism in Maya area
  - Including Eastern Mayan / Highland area
  - Other structures diffused (Barrett 2002)
    - word order
    - noun classifiers
    - retroflexion

Takeaways

- Easier to borrow affixes within a language family
  - High structural similarity

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  - What was the outcome?
  - Differences between the source and target language?

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  - High structural similarity
- Worth looking at the whole paradigm
  - Not just “whether” an affix was borrowed
  - Did the affix replace an existing one?
  - What was the outcome?
  - Differences between the source and target language?
  - Subsequent changes in the source language?

Thank you!

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Yucatecan *-m-ah* is unrelated

	Root TV	Derived TV
Active	*-m-ah*	*-m-ah*
Passive	*-b'il*	*-b'il*

- Data from Hofling (2017: 705, 709)
- Hofling analyzes this *-ah* as a “completive status” suffix
- Not passive here
- No geographical connection to K’iche’an

Proto-Mamean perfect paradigm

	Root TV	Derived TV
Active	Lost	Lost
Passive	**-oʔm/-uʔm*	**-ʔm*

Spread of *-maχ*

- Sipakapense: *-maχ*

*In-r-il-**maχ***

A2S-E1S-see-PERF

‘I have gone to see you several times’

(Barrett 1999: 106)

Spread of *-maχ*

- Sakapultek: *-(V_R)maχ*
- Phrase-medial form *-(V_R)m* (Mó Isém 2006a: 239)

At *inw-il-ila?-**maχ***

A2S E1S-see-FREQ-PERF

‘I have gone to see you several times’

(Mó Isém 2006a: 421)

Spread of *-maχ*

- Teko: Several examples observed in dictionary

*kʸ'iwla-**maχ***	*te ʃχal*	*tsan*	*te*	*n-tʃman*
baptize-PERF	DET person	by	DET	E1S-grandfather

'My grandfather has baptized the person'

(Comunidad Lingüística Tektiteko 2018: 91)

Perfect suffixes in K’iche’an

Subgroup	Language	Active		Passive	
		RTV	DTV	RTV	DTV
Core K’iche’an	K’iche’	*-oom/-uum*	*-V_1m*	*-oom/-uum*	*-V_1m*
	Sakapultek	*-V_Rm(aj)*	*-m(aj)*	*-V_Rm(aj)*	*-m(aj)*
	Sipakapense	*-maj*	*-maj*	*-maj*	*-maj*
	Kaqchikel	*-om/-um*	*-m*	*-om/-um*	*-m*
	Tz’utujil	*-oon/-uun*	*-V_1n ~ -oon*	*-oon/-uun*	*-Vn ~ -oon*
Poqom	Poqomam	*-V_Rm*	*-m*	*-ooj/-uuj*	*-maj*
	Poqomchi’	*-V_Rm, -om*	*-m*	*-ooj/-uuj, -$V_R$maj*	*-maj*
Uspanteko		*-oom/-VVm*	*-oom/-VVm*	*-V_Rl*	*-l*
Q’eqchi’		*-(o)m*	*-(o)m*	*-b’il*	*-b’il, -mb’il*

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