



Type: Book Chapter

Seven Uto-Aztecan Puzzles Explained by Egyptian and Semitic

Author(s): Brian D. Stubbs

Source: *Exploring the Explanatory Power of Semitic and Egyptian in Uto-Aztecan*

Published: Provo, UT; Grover Publications, 2015

Pages: 303-319

6 Seven Uto-Aztecan Puzzles Explained by Egyptian and Semitic

6.1 One, Tarahumara's initial *ř* (< Semitic/Egyptian *r*) vs. *t* < *t*, *d*, *ṭ*, *ḍ*

From the traditional UA perspective, initial PUA **t* remained *t* in all UA languages except in Tarahumara (Tr) where it appeared to have changed to *ř*; that is, Tr *ř* corresponds to *t* of the other UA languages. The problem is that Tr also has many words with initial *t* besides initial *ř*, that is, many Tr words begin with *t* besides those that begin with *ř*. So if the traditional view is correct, then where did Tr initial *t* come from? Said differently, why do some UA cognate sets of initial PUA **t* yield Tr *ř* and others yield Tr *t*?

This is explained by Egyptian *ṭ*, *ṭ*, *d* or Hebrew initial *t*, *d*, *ṭ* > *t* in Tr, but initial *r* of both Semitic initial *r* and Egyptian initial *r*, remain *ř* in Tr, though initial *r* > *t*- in the other UA languages. This distinction is clear in Tr. A few Tr words have alternate forms, one with initial *t* and one with initial *ř*. Some forms are not identifiable to the Near Eastern tie, but of those identifiable to the tie, 37 of 40, or 93% match this distinction: that Tr initial *ř* corresponds to Egyptian or Semitic *r*, while Tr *t* corresponds to Egyptian *ṭ*, *ṭ*, *d* or Hebrew initial *t*, *d*, *ṭ*. The other 7% may well be items that developed variants, then lost the original of the pair and kept the variant. Nonetheless, in Brambila's Tr dictionary of initial *t*, those identifiable to the Near Eastern tie relate to Egyptian or Hebrew forms which start with sounds (*ṭ*, *ṭ*, *d*, *ṭ*) that correspond to UA *t*.

<u>Tarahumara</u>	<u>Semitic / Egyptian</u>
tábiri 'thing'	< dabar 'thing' (610 Hebrew)
ta- / taní 'to ask for'	< natan / -tan 'to give' (1036 Hebrew)
takú 'type of palm tree'	< daqal 'date palm tree' (961 Hebrew, Arabic)
tará- 'to count'	< ṭnw 'to count' (1527 Egyptian)
téburi 'louse nit'	< ḍabboot 'flies' (620 Hebrew, Semitic)
(semantics: fly > flea > louse / nit)	
tégu- / téku- 'to be drunk'	< txw 'drunkard' (170 Egyptian)
tesó < UA *tikso	< tks (124 Egyptian)
ti 'me'	< 'ootii 'me' (1497 Hebrew)
teté'na- / fe'na- 'yawn, open mouth'	< dqn (Arabic), dqn (617 Aramaic), zqn (Hebrew)
tewé-re- / fewé-re- 'be named'	< ḍŷy / daŷaa 'to call, name' (1059 Arabic)
tibú- 'watch, take care of'	< ṭbŷ 'follow, trail, observe' (1327 Arabic)
tami / timi 'like, look like'	< dmy / damaa 'be like, resemble' (751 Hebrew)
toa / to- 'take along, carry'	< ṭ'w 'take up, seize, steal, bearer' (159 Egyptian)
toba- 'atollarse, sink in the mud, atascarse'	< ṭbŷ / ṭbl (1159 Semitic)
tókowa 'to crow (of bird)'	< tqŷ 'to blow (a horn)' (1471 Semitic)
tori 'cock, hen'	< toor 'turtle-dove' (725 Hebrew)
towí 'boy'	< ṭ'y 'male, man' (206 Egyptian)
tosá- / fosá- 'white'	< ṭ'-ḥdt 'the-white' (494 Egyptian)
tumu-(hé) 'you, pl'	< 'antum / -tum 'you, pl' (106 Arabic/Aramaic), attem (Hebrew)
tu'na- 'be thick'	< ḍšn 'be fat' (Hebrew)
tutuguri / futuburi 'a ritual dance'	< twt 'stand, perfect' (420, 421 Egyptian)
tagáči- 'give fruit from a vine'	< dqr 'fruit' (269 Egyptian)
tékoa / tékowa 'master, lord'	< tqŷ 'pierce(d)' (1472 Hebrew)
tari 'seed for sowing'	< dry / dara ^y 'to sow (seed)' (1499 Semitic)
tá / tamu / tami 'we'	< tmmw 'man' (1527 Egyptian)

While Semitic and Egyptian initial *r* became *t*- in the rest of UA, Tarahumara retained initial *ř*, so Tr shows Semitic and Egyptian *t* > *ṭ*, and also Semitic *r* > Tr *ř* and Egyptian *r* > Tr *ř*:

(169) Egyptian *rṃṭ* 'man': Tr **řemari** 'boy'; Eu *temáci* 'young man'; Wr *te'marí* 'boy, young man';

Wr *re'marí* 'friend'; Wr *remarí* 'man' (perhaps a loan from Tr).

(508) Egyptian *rmn* 'row of rowers' > UA **taman* 'tooth/teeth': Tr *řame* (as Wr's in 'row of teeth'; see 508)

(168) Egyptian *rm* 'fish' (Coptic *rame*); Egyptian *rm* is often found in the pl *rmw*: Tr **řamú** 'small fish'.

- (164) Egyptian rn ‘young one, of animals’ > UA *tana ‘offspring’: Wr taná ‘child, little one’;
Wr tana-ní/tani-má ‘give birth’; **Tr řaná**(ra) ‘offspring, son’; Tr fana-mea ‘give birth’;
- (337) Egyptian r’-ib ‘stomach’ > UA *to’i / *to’(pa)/*toCpa ‘belly, stomach’: Wr tohpá; **Tr řopá**;
My toppa; My tópa’ara; Ca tí’i-ly (< *to’o); Ls téé’-la ‘belly’; Sr tō’č; Eu toa.
- (422) Egyptian rđi > rdi (in middle Egyptian) ‘give, put, grant, give (the price, i.e. buy), sell’ >
UA *tari ‘sell’: Wr tariké ‘sell s.th. to s.o.’; Wr tala-ní ‘buy, vt’; **Tr řari**-mea ‘buy’; Tr řarinéa-ma ‘sell’
- (600) Hebrew r’y / ra’aa ‘see, v’ > UA *tīwa ‘find, see’: Hp tīwa ‘find, perceive’; Tb tīwat~’īitīw ‘look
for, find, guess’; Cp tewa ‘see, vt’; Ca téew ‘find, discover’; PYP teega ‘find, see, vt’;
PYP teegida ‘show, vt’; NT tīgai; Eu téwa; Wr tewa; **Tr řewa**/tewa; My téwwa ‘hallar’; Yq tea;
- (603) Aramaic rymh (= riimaa) ‘large stone’; Aramaic *rima-taa ‘large stone-the, n.f.’; Syriac ryaam-taa
> Sr tīmī-t; Ktn tīmī-t; NP tīb-bi; Sh tīm-pin; Tb tīn-t; Yq téta; My tetta-(m); Wr tehté; **Tr řeté**; řeepó.
The final -ta / -te of the SUA languages is fossilized absolutive suffix *-ta.
- (1240) Arabic rağul ‘man’ > UA *tihoyi ‘man’: Wr tihóé/rihóé; Wr(MM) rihóé / tehoyé ‘man’; **Tr řehói**;
Wr also has loans from Tr it appears.
- (1242) Hebrew rbš ‘lie down (animals)’; Hebrew rebeš ‘resting place’; ribš-o ‘resting place-his’:
UACV-1518a *tosa ‘nest’: Eu hitósa; Yq tóósa; My toosa; Tbr tuesá-r.
UACV-1518b *ta’so ‘nest’: Wr ta’só; **Tr řasó**.
- (1341) Hebrew rfm ‘to rage, roar, thunder’ > SP tom’mu ‘make a big noise, thunder’;
Wr te’ó-na ‘buzz, roar, thunder’; **Tr ře’o**-ma ‘thunder’.
- (403) Egyptian rd ‘foot’: Eu tarát ‘pie’; Wr talá ‘planta del pie’; Tr rará ‘planta del pie, pie, pata, huella’.

Three forms to the contrary are below, though they could be due to other language influences or could be the survivor of a pair of variants that had both forms, but lost the other:

- (602) Hebrew régaš ‘a moment, in a moment, a short while, abruptly’
> Tr teko ‘soon, in a short time, quickly’ may be a loan from Wr or an invalid tie.
- (743) Aramaic tuumr-aa ‘palm-the / date-palm-the’
> UA *tu’ya ‘type of palm tree’: Wr tu’ya ‘palmilla’; Tr řu’ya ‘kind of palm tree’.
- (866) Semitic řamar ‘hide, bury, cook underground’ > Tr řemé-ma ‘make tortillas’ though the
pharyngeal / retroflexive nature of Semitic ř may have better aligned with ř than t.

An item not yet identified but worth listing for future reference: Tr tabá- ‘opening, narrow gap, crotch’

Among the Wr dialects and Tr dialects, all in the general vicinity of each other for convenient borrowing, doublets or word variants that have both an initial t- form and an initial r- form are not surprising, as a Wr t- form would join the Tr r- form, but only two such items are in this list. No less than 24 items with initial t- in Tarahumara are from initial t- forms in Semitic or Egyptian, and twelve items of Tarahumara initial ř are aligned with Semitic initial r- or Egyptian initial r-. Two items show both, for example, Tr řewa/tewa vs. Wr tewa and UA *tīwa in a dozen other UA languages. Only one shows r > t with no alternate r- form, which lone form may be a loan from Wr or elsewhere, and two forms (řu’ya, řemé) go the other way. So 36 of 39 or 38 of 41 if counting the two with both forms, amount to all but three forms to the contrary. Those noteworthy numbers yield a rather impressive 93% agreement.

6.2 Two, Tara-Cahitan Initial b (< Semitic/Egyptian b) vs. initial p (< p)

An interesting distinction exists in the Tara-Cahitan (TrC) branch of UA. Proto-Uto-Aztecan *p is simply p in most UA branches. However, six languages/dialects in the TrC branch—Tarahumara (Tr), Western Tarahumara (WTr), Eudeve (Eu), Mayo (My), Yaqui (Yq), Arizona Yaqui (AYq)—show both initial b and p for PUA *p. This dichotomy has been without explanation the last century since Sapir established UA as a language family, yet Semitic explains the distinction the great majority of the time: items with initial b in these UA languages align with Semitic b or Egyptian b, and items with initial p in these UA languages align with Egyptian or Semitic p. We shall only deal with the initial bilabials, because non-initial (later in a word) bilabials are easily voiced intervocalically or otherwise altered due to word-internal environments. To state the matter another way, for items contributed by Sem-p, Semitic p > UA *p and Semitic b > *p, such that Semitic b and p merged in UA to UA *p. However, in the six languages mentioned,

they did not merge, but are distinguished. For most, Semitic b > TrC b and Semitic p > TrC p; AYq shows v < b and p < p; and Eu shows both b/v < b vs. p < p. Wr never shows the distinction, but is closely related, and is often listed to show the difference. Abbreviations of the relevant sets follow:

Semitic b

- (527) Semitic baraḡ > UA *pirok / perok 'lightning': My berok-; Yq be'ok-; AYq ve'okte; Tbr viriki-t; Sr vönāq-q 'flash (lightning)'.
 (528) Hebrew **bayit / beet** 'house'; Arabic **byt / biit** 'pass/spend the night': Hebrew byt 'to spend the night' > Tr bete-ba-ma 'spend the night'; Tr bete-či / biti-či 'home-at'; Tr bete-ra 'house'; Tr beté-re- 'live, inhabit, dwell'; Tr peréame 'inhabitants, residents'; Tr bití 'estar [various objects being in horizontal positions], vi pl'; WTr behte 'live, v' (Burgess 1984, 19); WTr bete-ba-ma 'spend the night'; WTr bete-ra 'house, n'; WTr bití 'be lying down, pl'; WTr bite 'dwell';
 (529) Hebrew béged / baaged 'garment, covering, clothing'; Arabic biḡaad 'striped garment':
 Eu vakaci 'clothing'; Eu vakace 'get dressed, vi'.
 (530) Hebrew béged / baaged 'garment, covering, clothing' denominalized to be a verb 'put on, enter'
 > UA *pakiC 'enter': Eu vaké/baké; Wr pahki; Tr baki-mea; My kibake; AYq kivake.
 (531) Hebrew **bw** 'come, v, way, n' > UA *pow/*po 'road, path, way': Eu bowé-t; Yq bóo'o; My boo'o; AYq voo'o; Tr bowé/boyé.
 (532) Arb **baaširat** 'eye' (= Hebrew booser) > UA *pusi 'eye'; Eu vusit/busít; Tr busí; while Eu and Tr show b, Yq and My show p: Yq púusi; My puúsi.
 (533) of the same root, Arabic **baššara** 'open one's own eyes'; unattested Hebrew *buššar > Eu busá 'awaken, vt'; Eu busú 'wake up, vi'; Tr busá-ma 'wake another, vt'; Tr busi-mea 'wake up, vi'; Tr busire 'be aware, conscious, awake'; My bussa; Yq busa; AYq vusa; AYq vusa'a 'awake, adj'.
 (535) Hebrew **baaqaar** 'cattle, livestock'; Aramaic **bqwrh** (bVquuraa) 'herd of cattle' > UA *puku 'domesticated animal, s.th. possessed': Tr bukú 'animal poseído'; Tr bukurú 'take ownership of'; Eu bukút 'slave'; My bukke 'raise (children or animals)'; Yq búke 'have animals'; Yq buki 'slave'; Eu vuk 'possession': no vuk 'mio', amo vuk 'tuyo'.
 (538) Arabic badda 'separate'; Arabic budd 'part of a thing'; Hebrew bad 'part, portion' > Tr biré and Wr piré. Wr never shows the b vs. p distinction.
 (540) Hebrew bṯḥ 'trust, v'; Hebrew biṯḥa(t) 'trusting' > UA *pitiwa > *piciwa 'believe': Eu vícwaci 'believe'; Eu vicwaterá 'believe'; Tr biči 'believe, have faith'.
 (545) Arabic bd' 'begin, start', bad'a(t) 'beginning, n' > UA *piwa(t) 'first, begin': Eu viwát 'first time' (similar and possible is Arabic **bdš** 'start, do for the first time' (badš); Arb bidšat 'innovation').
 (548) Syriac bd' 'to invent, make up'; OSArabic bd'an 'loose talk'; Hebrew bada' 'to invent, devise' > AYq veewa 'non-sense, gibberish'; AYq veewa-tia hia 'brag, boast, complain, whine'. Both meanings, 'new, begin' and 'bad-talk', show the pattern *piwa / *biwa < bad'a. Also interesting is that AYq v corresponds to Hebrew b instead of p.
 (549) Arabic blg / balaga 'to shine'; Arabic blg / baliga 'be happy, glad'; Hebrew hi-bliig 'cause to flash, become cheerful, brighten up' > Yq bále 'enjoy, rejoice'; Yq balí-ria 'joy, gladness'; Yq(EF) belohko 'bright, shining'; AYq vélohko 'bright, shining'; AYq valepo 'desire, will'.
 (550) Aramaic **bəšár** 'flesh', bišr-aa 'flesh-the'; Hebrew bášaar 'flesh, penis' > UA *pisa 'penis': Wr pisá; Tr bisa.
 (552) Arabic baṭuna (u) 'be paunchy, pregnant'; Arabic baṭn 'belly, womb'; Hebrew baṭten 'pregnancy'; Syriac baṭin 'to conceive, be with child'; Hebrew beṭen 'belly (of man, of pregnant woman)' > UA *poc(c)a / *putta 'pregnant': Tr bocá 'be pregnant'; Eu púcika 'rebosar de lleno'. Tr aligns, while Eu is an exception to the alignment, perhaps a loan from a non-distinguishing language.
 (553) Hebrew bšq 'to swell'; Hebrew bašeq 'flour-dough' [what swells/rises]; Arabic basqat 'raised spot' > UA *posa 'swell': Hp pös-ti 'become swollen'; Wr posa- 'estar lleno, satisfecho'; Tr posá/bosá, bosawí (irreg pres) 'full from eating'; Eu vosve 'get full of food'; Eu vosáhtude- 'fill another with food'. Hp and Wr are included as examples of languages that do not show the distinction, while Tr and Eu do, though Tr has alternate forms, one likely borrowed from nearby Wr which does not distinguish b vs. p.
 (554) Aramaic(S) bəzar 'seed'; Aramaic(S) biizr-aa / bazr-aa 'seed-the'; Arabic baḏara 'sow'; Arabic baḏr- 'seed, seeds'; Arabic baḏra(t) 'a seed, pit' > *paCci / *pa'ci 'seed': My báči-a; Yq bací-a; AYq vačia 'seed, pit, stone'; Wr pahci; Tr bací-ra 'semilla de calabaza' (Tr bací- 'calabaza'); Tr pači 'elote, siembra'; Eu suváci (acc: subáta) 'seed' (su- another morpheme); Tr has both b and p, while all the rest align with b like Semitic b.
 (556) Hebrew **bayša(t) / beeša(t)** 'egg'; Arabic **byḏ / baada** 'lay eggs, be white':
 Arabic **bayḏat-** 'egg, testicle': plural would be Hebrew **beešoot** > UA *piyso 'testicle':
 Yq bíčo 'testicle'; Tr bičo/wiči 'testicle'; Eu vicó-puva- 'castrate'.
 (562) Hebrew **-bbiit** > UA *pica/i 'look, see': Eu vica/bica; My biča; Yq biča; AYq viča; Tr beči/peči.
 (1390) Semitic bə-tVxVt > My bétuku 'debajo'; Yq bétuku(ni) 'below, down'; AYq vétuku 'under'.

- (1394) Ugaritic bšd ‘behind’; OSArb bašdu ‘after, behind’; Arabic bšd ‘be distant’; Hebrew bášad ‘behind, through, round about, for’ > Tr bo’ó / ko’ó ‘del/al otro lado de [from/at/on the other side of]’.
- (1238) Hebrew **bayt-aa** ‘inside-to’ > UA *paca: B.Tep254 *vaasa ‘to put into’: Tr bač-á ‘put in’; Wr pahcá; My kibáca ‘meter’. Wr and Tep never show the distinction, only Tr and My ever show it.
- (823) Hebrew **ba-yyameey** ‘in the year of, lit: days of’ > *payami > UA *pami ‘year’: Tr bamí; bamíbari ‘year’; Wr pamíbari ‘year’; Wr pamíbame ‘years’. Wr is included for contrast, as it does not who b > b.
- (811) Hebrew **-biin / he-biin / yV-biin / tV-biin** ‘understand’: Tr biní-mea ‘learn, study’; Tr bene- ‘know, acquire habit or custom’; Wr peni ‘learn’; Wr pené ‘know how to do’; Eu viné ‘know/like (a place)’. Note Tr b and Eu v, but Wr p which never shows the distinction.
- (1277) Aramaic(J) rbš ‘lie down’; Syriac -rbaš ‘lie down’ > Eu voó ‘lie down’; Eu voí ‘lying down’; Wr po’í; Tr bo’í; My bó’o-ka ‘acostado’; My boo’-te ‘acostarse’; AYq vo’o-te ‘lie down’; AYq vo’o-ka ‘be lying down’.
- (1050) Hebrew ben ‘son’, pl: **bānee(y)** ‘sons’ > UA *poni ‘younger brother’: Eu bonwa/vónwa; Tr boní ‘younger brother’. The following AYq term demonstrates how a term for ‘son’ can come to mean ‘younger brother’ as in AYq pale ‘hijo [son], hermano menor [younger brother]’.
- (1496) Hebrew **brd** ‘to hail’; Hebrew baaraad ‘hail’; Syr bard-aa ‘hail-the’; Arb brd ‘be cold’; Arb barad ‘hail’: Tr bara- ‘ser el tiempo de lluvias [be the time of rains]’; My baali / baayi ‘cool’; AYq bali ‘cool’.
- (1397) Hebrew bayin / been ‘between, among’; Syr bainai > Eu vené ‘to’; Eu vené-ri ‘together with, near’.
- (1398) Hebrew bə-panee ‘on the surface of’: Eu vepán ‘encima, sobre’; AYq vepa ‘on top of’. The two languages that show v < Semitic b, vs. p < Semitic p, show their consistent v.
- (722) Syriac **bl** ‘grow old, wear out’ > Eu virúe- ‘get tired’; Eu virúhmukú ‘die of exhaustion’.
- (1450) Arabic **šbb** ‘pour, gush, flow’; Arb šabiib ‘poured out, blood’; CN espipika ‘blood flow out’; Eu vávika ‘bleed’
- (590) Hebrew ‘about ‘fathers, ancestors’ > Eu voc-wa ‘grandfather’; not count, because intervocalic.
- (1399) Semitic **bxr** ‘test, choose, be/make choice’: Syriac bħr (< *bxr) ‘try, prove (as silver by fire)’; Hebrew bħr (< *bxr) ‘choose’; Hebrew ni-bħar ‘be tested (refined in fire, as metal), be preferable’; Hebrew baħjir ‘choice’; Hebrew baħjuur ‘young man (i.e., choice, in prime of life)’; Amorite bexeru ‘elite soldier’: My behre ‘be costly’; My behri ‘opponent, enemy’; Yq behé’e ‘expensive’; AYq behe’e ‘1 betray, deceive, 2 cost, be expensive’.
- (1400) Syriac **baatar** ‘after, following’ < bə-’atar, cognate to Hebrew b-’ašer); Hebrew ba’āšer ‘because’; Arabic ‘aθar ‘track’; Arabic ‘iθra ‘immediately after’; these 3 language forms are cognate in Semitic, and the UA form is phonologically like Hebr, but semantically like the more original meaning in Arabic and Syriac, i.e., ‘in the track of’ or ‘after, behind’ > AYq veasi ‘behind, beside, on the other side of’.
- (1401) Hebrew brf ‘flee, slip away, pass through, glide past’ > My bóroh-te ‘tiene diarrea’
- (1165) Arabic baħr- ‘sea, large river’, that is, water vs. land; Arabic baħra(t) ‘pond, pool’ > *paa ‘water’ in nearly all UA languages, yet in Cahitan(My, Yq) *ba’we ‘sea’: My báa’a; My báawe ‘see’; Tr ba’wí ‘agua, jugo, caldo, líquido’; Wr pa’wí; Wr pa’wé ‘sea’.
- (1067) Hebrew bšy / bašaa¹ ‘enquire, search’; Ugaritic bgy ‘wish’; Arabic bgy ‘seek, desire, wish for’ > UA *paya ‘call’ (loss of ġ in cluster): TO waíd; Wr paé-; Wr(MM) pa’é / paé ‘call’; Tr bayé/páe.
- (1351) Hebrew bqš ‘split, cleave’; biqšaa ‘valley’ > Tr bakowá ‘ravine where water runs’.
- (1259) My beyúk ‘stoop’ < brk ‘bow’

Counter examples, if valid, may be (1260) Semitic brk ‘praise, bow’ > Yq(EF) po’ok-te ‘stoop over’; Yq(EF) po’ola ‘head bowed forward’ and perhaps (537) if valid.

In the six languages that show Semitic b > b, no less than 75 words align with the b > b, and 4 do not, for a 95% agreement. As for sets as a whole, 36 sets align and 2 may not, again a 94% agreement.

Egyptian b

- (138) Egyptian **bši** ‘to spit, vomit, v’; Egyptian **bšw** ‘spittle, vomit, n’ > UA *piso-(ta): My bísata; My bísaci ‘vomit, n’; AYq visata; Yq bísata; Tr o’pésu ‘vomit, vi’; Tr ku’pésu ‘vomit, vi’. Most are voiced b; Tr clustered with a voiceless stop (ʔ) to cause devoicing b > p. 2 of the 2 languages have b > initial b
- (139) Egyptian **bnty** ‘breasts’: Eu viit / biít; Yq pípm; My píppim. 1 of 3 have b > b
- (141) Egyptian **bit** ‘bee, feminine noun’: some t’s survive in UA but many palatalize to c: Eu pica/pisat ‘avispa’; Tr pičé ‘avispa grande’; My biica ‘avispa’; AYq viiča ‘wasp’. 2 of 4 have b > b
- (143) Egyptian **nb** ‘pregnant’ > Eu bokát ‘preñez’; Eu boké ‘preñada’; Eu vokíma ‘stomach’. 1 of 1 have b > b
- (241) Egyptian **nb** ‘any, every, all’ > Tr nabí ‘always, each, every, all’. Intervocalic b, not countable.
- (465) Egyptian **bi** > UACV-1268 *papayu > *papa / *papo ‘rock, cliff’: TO waw ‘cliff, bedrock, a rock’; NT vávoi; ST vaapai. Add PYP vava ‘hill, mountain, cliff’; PYP vaves ‘rocky terrain’; and Nv baba ‘roca, peña, peñasco’. The Cahitan forms—My baabu ‘barro [clay]’ and AYq vaavu ‘clay’—vary semantically from Tepiman, but the phonological identity with Tepiman and a slight semantic shift to ‘clay’ deposit/place (quarry) from flint/ore/rock deposit/place (quarry) make it probable. 2 of 2

Of Egyptian terms, all 6 of 6 UA sets (100%) show some b, and 8 reflexes of the 12 show b > b, for 75%.

Semitic p

(724) Hebrew parʕoš 'flea' (jumper, Hebrew pršš 'jump') > UA ***paro'osi** 'jackrabbit': Op paros; Eu barós; bwaros; paaros; Yq páaros; AYq paaros; My paaros; pl. paró'osim; Wr pa'loisi; Tr ba'loisi. 6 of 8 forms have p

(640) Semitic psx 'lame' > Eu piopioké 'limping' 1 of 1 has p

(640) Semitic psx 'lame' > 'bad' > UA ***pisika** '(become) rotten, infected': Eu viike 'pus; Eu viikát 'sore, pus';

Yq bikáa 'rotten'; AYq viika 'rot, spoil, decay, infected'; My biká; Tr biká / bi'ká (Tr(L)) 0 of 5 have p

(812) Aram **pty** 'be wide'; Arm(J) pətee(y) 'be wide, open'; Syr pətaa(?) / pətiy 'be enlarged, increased, wide, broad, ample': with forms in all 8 branches, UA has explanatory power for both the y and the ' alternations in UA, because the same pair of options exists in Aramaic. Eu bete'e-; Tbr --; Yq béte'a 'pesar'; AYq vette; My bette; Tr be'té-re. 0 of 5

(1392) Syriac p'y 'be becoming, comely'; Syriac paayut (< *pa'yut) 'beauty, comeliness, elegance':

Tr ba'ó 'hermosura [beauty]'; Tr ba'ó- / ba'óre- / bayóre- 'be beautiful'. 0 of 1

(1377) Hebrew *šəpardeʕ 'frog' > My booro'okim 'toads' and/or My báta'ači 'frog'. Non-initial

(827) Hebrew **daqar panaa-w** 'till its surface' > UA ***tikir-panawa** 'work, cut' CN teki-panoa 'work, v' (as well as CN teki-ti 'work, pay tribute, v'; CN teki-tl 'work, tribute, n'); Tbr tekipa-(na)- 'trabajar'. Note Yq tékil 'trabajo, n' and Eu tékirwa 'trabajo, n' without *panawa. Though possibly borrowed directly from CN, we ought to note also *tiki-panawa in Yq tékipanóa 'trabajar'; My tekipanoa; as for *tikipanoa being a compound of *tiki 'cut' plus *panawa, note Eu panava / panawa 'trabajar'. 5 of 5 have p

(1391) Hebrew pšt 'spread out, take off clothes, stretch oneself, remove (skin)'; Syriac pšt / **pəšaṭ** 'stretch out, extend, spread out'; Syr pəšiit 'straight, plain, flat': Tr pe-, pesá (irregular present) 'stretch, spread, spread a cover onto s.th., spread out a bed'. 1 of 1 has p

(1391) Hebrew pšt 'spread out > UA *(hi-)pita 'woven mat': M67-277 *peta 'mat, bed': Eu hipét;

Wr ihpetá; Tr péra; My hípetam; CN petla-tl 'woven mat'; Pl petat. 4 of 4 have p

(852) Hebrew paneeʕ 'on face/surface of' > Tr paní 'up' (loan from Azt?). 1 of 1 has p

(851) Hebrew panaa-w 'face-his' > Tr bana 'cheek, face' 0 of 1

(1453) MHebrew and JArm **pwḥ** 'blow, breathe'; Arabic fwḥ 'diffuse an aroma, exude a pleasant scent'; Syriac pwḥ 'breathe, blow, exhale'; Syriac payyaḥ 'breathe forth, exhale'; Tr pewa- 'to smoke'. 1 of 1 has p

(1395) Hebrew paḥ, pl: paḥim, pl construct paḥee(y) 'thin plate(s) of metal' (< Egyptian px 'check')

Tr piwe- / piu- / piwi- 'remoler bien, pulverizar fino'. 1 of 1 has p

(1396) Arabic kfr (< *kpr) 'cover, hide'; Syr kpr, impf: **-kpur** 'wipe clean, scour'; Hebrew kpr 'smear (i.e., cover) with s.th. (pitch in the extant example in the O.T.) > Tr pora- 'tapar, cubrir, techar'.

(840) Hebrew pwš 'spread, disperse, overflow'; scatter is what a wind does when it blows; Eu pupúca; Wr pupúce;

Tr pučá; AYq puh-ta 'blow away, spray'; CN piica 'blow on s.th.' 4 of 4 have p

(1133) Syriac bašw-aa '(camel) hair/hide-the' > Tr bo'wá / boa / bo'o / bó 'hide'; My bowwa 'hair'; Yq bóa 'hair, feathers'; AYq voa 'fur, down, body hair'. 4 of 4 have p

(1132) Hebrew pəraʕ 'hair on the head'; Arabic farš- < *parš- 'long hair' or Arb farw-u < *parw-u (nom) / parw-a (acc) 'fur, skin, pelt'; Syriac perš-aa 'bud, shoot, sucker, blossom-the' > UA ***pi'wa** 'hair, hide, fur, body hair': My beewa 'piel'; Yq béa 'skin (of animal)'; AYq beá. Perhaps analogized voicing due to bašw-aa (1133) above, but 0 of 3

11 of 15 sets (73%) generally show p > p, but 28 of 45 reflexes is 62%, not quite 2/3 show Semitic p > UA p.

Egyptian p

(293) Egyptian **pds** 'stamp flat, flatten, beat flat' > Eu pitása 'aplastar [flatten]'; Yq(EF) pitta 'aplastar'; AYq pitta 'press (a surface), crush, smash'. ?but not AYq vetala(i) 'flat, smooth'; Yq bétalai 'level'? 3 of 3 have Egyptian p > UA p

(286) Egyptian **px** 'purge, clean'; Egyptian px' ib 'clean of heart'; Egyptian px' ht 'clean of thought':

UA ***pi'wa** 'clean': Tr bi'wá- / be'wá- / be'wé- 'clean, purify, wipe'; WTr bi'wí 'become clean, vi';

WTr bi'wá 'clean, vt'; Eu piwa-/pígwa- 'clean, wipe, v'; Eu píwi-/pígwi- 'clean'. 1 of 2

(289) Egyptian **phr** 'turn, turn about, revolve, surround, travel around' > UA ***pi'ri-na** > **piyi(na)** 'to spin, twist (thread/rope)': Tr bi'rí 'be twisted, rolled up'; My biirite 'spin, twist'; AYq vi'ita 'twist, wind around, coil, vt'; Eu virá- 'torcer'; Eu vírana- 'voltear'; Sr viooro-k 'be rolled up'. This one is reversed: 0 of 4

(491) Egyptian **phrw** 'water' > UA ***parawa** 'juice, soup, stew': Hp paala 'juice, soup'; TSh paawa 'juice'; Eu varáwa 'stew'; Wr pa'wíla; My bá'wa; My bá'awa; AYq va'awa; Yq bá'awa (*r > ' in Cah); Tr ba'wi-rá 'make stew'. This set is partially influenced by the term for water and thus reversed, so 0 of 4

(319) Egyptian **psi** 'cook' (Coptic pise); Egyptian psw 'cooking (verbal noun)': UA ***paso** > **poso**: Wr pasu 'cook by boiling'; CN posooni 'boil, be angry'; My poh-te 'is boiling'; AYq poh-ta 'boil'; Yq poh-te 'hervir [boil]'. 3 of 3

3 of 5 sets show Egyptian p > UA p, but the two sets reversed yield only 7 of 16 reflexes.

Egyptian f (has few examples and is inconclusive, though Egyptian f > b 2 times, > p one time)

(275) Egyptian f'i 'take from s.o.' > Tr bo'e- 'take from, dispossess'

(279) Egyptian ftt 'jump' > Tr poči- 'jump';

(277) Egyptian fx 'loose(n), release, cast off, depart' (infinitive fxt) > UA *puC-tV 'loose(n), untie(d)': My búttia 'untie'; Yq búta; Wr po'tá; Wr(MM) po'tá 'become loose, untied'; Tr bo'tá; Tr o'ta- 'bec slack, loose'

6.3 Three, Proto-Uto-Aztecan *k > Tübatulabal h, versus PUA *k > Tb k

The two reflexes of Proto-Uto-Aztecan *k in Tübatulabal (Tb) have long eluded solution among Uto-Aztecanists. PUA *k often remains Tb k, but at least as often PUA *k > Tb h. Though unexplained previously, the Tb dichotomy is partially explained by the fact that a doubled Semitic *-kk- remains -k- in Tübatulabal (group 5) while a single k, g, ġ, q, or x > h, unless followed by a back round vowel u, o, or i. The vowel i may not be back and round, but can be back and in Numic its assimilative influences trigger rounding. So i being associated with u and o is not surprising. This explanation holds for 38 of the 43 examples below, but group 9 and one in group 3 seem to be exceptions, unless an additional factor is found. In Kenneth Hill's Tübatulabal Dictionary are 5 pages of ko, ku, ki and 2 pages of ka and 2 of ki. Yet among initial h- words are 5 pages of Tb ha, but only 1 ½ pages of ho, but less than a half page of hu and a quarter page of hī, and many of those are not from PUA *k, but *h. So those lopsided ratios support the overgeneralization that *k > k preceding o, u, i, but *k > h more often before the other vowels. Thus, Semitic/Egyptian k, g, ġ, q, and x all generally become k in UA, but in Tb, the k vs. h distinction is not determined by consonant as much as it is by doubling vs. not, and by the quality of the following vowel.

Group 1: Egyptian and Semitic x > **Tb h** (Semitic-p contributions), x > h also in Hopi at times:

Tb šaahat 'willow' < Egyptian sxt 'willow' (174)

Tb wahaayu 'after that' < Hebrew 'axar-o 'after it, after that' (570)

Tb nohhot 'to roast in the ground' < Egyptian nwx (172)

Tb hapši-l 'thigh' < Egyptian xpš 'thigh, upper arm' (294)

Group 2: Egyptian and Semitic q > **Tb h** when before the vowel **-a**, also in Hopi at times:

Tb tidiha~'iidiha 'be cut up' (Tb *tiha redupl'd) < Semitic dqr 'pierce' (827)

Tb ha'~'aaha 'hear' (pfv of ha'it) < Hebrew hi-qšab 'listen' (1069)

Tb haa-l 'willow' < UA *kana 'willow' < Hebrew qaane 'reed, stalk' (1216)

Tb pahaabil / paha'bil 'sugar cane plant' < Hebrew qaane 'reed, stalk' (1135)

Tb haawa-l 'wood rats'; Hp qaala 'packrat'; Ls qāw-la 'woodrat' < Egyptian q'r 'bundle, pocket' (328)

Tb haayčan 'to chew' < Semitic *qrđ > Hebrew qrš 'bite' (1448)

Group 3: Semitic **-g-** > **Tb -h-** (in Semitic-p):

Tb(H) wohhompoo-l / wohhoono-l 'gray pine, bull pine' < Hebrew 'egooz < *VNgoz (569-p)

Tb yahaawi-t / yahaawi-l 'summit, point of a hill' < Semitic *yagar 'hill, heap of stones' (1279-p)

Tb wiih ~ iwihi 'to wait for' < Arb 'ġl < *'gl 'to hesitate, wait, linger' (1332-p)

Tb wahaminaš (Takic waṇam) 'down, deep' < Semitic šgm (927)

Tb(H) waahay' 'work' < Semitic 'gr 'hire' (1365-p)

Semitic ġ > Tb h:

Tb(H) haa'išš(a) 'no, not'; Tb hayyi / haayi 'no, not any, none' < Arb ġayr 'without, no/not' (690-p)

Group 4: Semitic k > Tb h, before -a (the last three are definitely Sem-p, and so perhaps the first also):

Tb hannii-l 'house' < Semitic *kann 'shelter, house' (890)

Tb(H) hammašat 'be sad' < Syr kmr / *kamar 'be sad' (1422)

Tb mahat, pfv amha 'give' < Hebrew makar 'sell' (565-p)

Tb(M) pahaa'at' / apahaa' 'cry, howl' (Hp pak- ; Ktn paka') < Hebrew baka^y 'cry'; Syr bakaa/baka' (559-p)

When Semitic *-kk- is doubled or clustered *-Ck- (≈ -kk-), it remains -k- in Tb:

Group 5: Semitic -kk- > Tb -k-

Tb(H) mukut 'dead' < Hebrew mukke 'smitten' (52)

Tb(H) hookii ‘deceased grand-relative after death’ < Hebrew hukke ‘was smitten’ (53)
 Tb(H) waakaayš-t / Tb waagaaiš-t < Egyptian ʃbxn ‘frog’ due to cluster *-bx- > *-kk- > Tb -k- (298)
 Tb pahkaani~pahkaan ‘to speak’ < Syriac etpakkan ‘be insolent, abuse, gabble’ (1151)
 Tb(H) pikiiniššit ‘wear or put on a shirt’ < *piC-kinis (*-Ck- > -kk-), Semitic kns ‘wrap’ (829-p)
 Tb(H) maakat ‘know, vt’ < Hebrew makkiir ‘know(er), know(ing), participle’
 Tb ekeewan / egeewan ‘big, large’ < Semitic et-kabbar (1015-kw), Tb -’w- < UA *kw < Semitic b
 with *-kw- < -bb- also suggests *et-kabbar

Tb ku is much more frequent than Tb hu, and Tb hu < PUA *ku is almost nil, which suggests that, all else being equal, the vowel u (and other back round vowels) encourage retention of *ku > ku, not *ku > hu:

Group 6: Semitic q > Tb k when before a back round vowel **o**, **u**, and **ĩ**, close to back round:
 Tb kulaa- ‘neck, n’ < Syriac qədaal-aa ‘neck, nape of neck’ (1014-p)
 Tb kuṣṣa-l ‘husband’ < Egyptian qm ‘create, beget’ (284)
 Tb(H) kooyoo-t ‘turtle’ < Semitic qrʕ (987)
 Tb(H) woṣko-l ‘shoe, moccasin, sandal’ < Hebrew ʕaaqeb ‘heel, footprint’
 Tb(V) kīī’-, kī’it~’iigī’ ‘bite’; Tb(H) kīī’it, pfv: īikī; Ktn kī’ < Semitic *qrq > Aramaic qrʕ (1447)
 Tb(H) waakīt ‘be dry’, Tb waakinat ‘dry, vt’ < Semitic ʕqr ‘uproot’ (1380)
 Tb(H) waaki’it ‘be thin, be poor’ < Semitic ʕqr (1380)

For Egyptian/Semitic x, as for q, the back round vowel **u** encourages retention of UA *ku > ku:

Group 7: Egyptian/Semitic x > Tb k
 Tb kutt ‘fire’ < Egyptian xt (452)
 Tb kutči / kuudzin ‘older sister’ < ’axoot ‘sister’ (594)
 Tb kuyuu-l ‘fish’ < *kicu < Egyptian xddw ‘fish’ (365)
 Tb kuu-l ‘yellow flower’ < Egyptian x’w ‘flowers’ (326)

For Semitic k also, the same following vowels **u**, **o**, and **ĩ** encourage retention of UA *ku > ku:

Group 8: Semitic k > Tb k (perhaps mostly Sem-kw)
 Tb kuyuu- ‘lower leg’ < Hebrew kəraaʕ ‘lower leg’ (997)
 Tb kīyī-l ‘arrowhead’ < Hebrew kly (1314)
 Tb aakīt, pfv: a’aa ‘open mouth, bite’ < Hebrew ’kl ‘eat’ (798)
 Tb kuuhupi-l ‘elderberry’ < Egyptian k’w ‘sycamore figs’ (1049)

Group 9: One instance of Semitic g- > Tb k- and one of q- > Tb k- are enigmatic:
 Tb(H) kam’mut, pfv aṣkam ‘to fit, be proper’ (l > ’ in cluster) < Semitic gml ‘beautiful, proper, fit’ (571)
 Tb(H) kamiīč’it, pfv: akkamiīč ‘to catch’ < Syriac qmṭ ‘lay fast hold of, take’, participle qaamīṭ (1508)

6.4 Four, Takic Absolutive Suffixes and Luiseño -la

A few noun suffixes (called absolutes in UA) are suffixed to a noun in citation form, but many things cause that suffix to drop, possession being the most frequent. The most common absolutive suffix is PUA *-ta, from the Aramaic definite suffix *-taa ‘-the’. The final vowel often drops to leave final -l or -t in Tb and in the Takic branch. Similarly, in the Aztec branch it is usually -tl, which is from PUA *-ta (Whorf 1937), which lateralized as -tla before losing the final vowel: *V-tla > V-tl. But if the stem ends in a consonant, then a final vowel on the suffix remains (VC-tli) to avoid a final consonant cluster (C-tl does not occur). However, when a Nahuatl noun ends with -l-, then the final -t (or -tli) assimilates to -l (or -l-li), and the suffix’s final vowel -li is also kept to avoid ending with a doubled -l-l, as in tamal-li and chil-li. Similarly, in Luiseño the usual Ls absolutive suffixes are -l and -t: -l when the stem ends with a vowel, such that intervocalic -t- > -l-, as in *V-ta > V-la > V-l; and Luiseño -t when the stem ends with an underlying consonant no longer obvious, such that the cluster VC-ta causes t to remain t: *-Cta > -ta > -t. However, slightly less frequent than those two, but frequent enough is the Luiseño suffix -la. Uto-Aztecanists can see that, synchronically, a final nasal encourages the retention of the vowel on the absolutive suffix (...N-la), as the Ls phonology does not end a word with a two-consonant cluster. For example, the first group of 8 Ls

terms end in a nasal consonant (n or ŋ), thus the -la form of the absolutive suffix: N-la rather than N-l. The 4 items in group 2 take the -la suffix also, as they also end with consonants, even if weak consonants. The 3 words in group 3 end with glides (y or w), yet glides are quite vowel-like (y ≈ i, and w ≈ u/o), so in synchronic terms the need for -la is somewhat opaque, though intense glides are indeed consonants. So the first 3 groups are synchronically understandable, resulting from mechanisms to avoid word-final consonant clusters. However, group 4 stems end with long vowels, with no apparent final consonants whatever, yet strangely add -la. Yet the underlying Semitic and Egyptian consonants of gutturals and liquids create a nearly 3-consonant cluster with -la, the liquid encourages the absolutive liquid, as in Nahuatl, and the formidable 2 or 3-consonant clusters clarify the need for the final vowel: *-hr-, -lʃ-, -ħr-, -l-, -'r-ta > VV-la. Such gutturals become -l- in Hopi also. In these Ls apparent vowel-final stems, the need for -la is baffling. However, the Semitic and Egyptian sources of these words clarify VV-la. In other words, when an underlying cluster guttural + liquid would develop, then -la appears, though the cluster is not synchronically (presently) apparent at all. Group 5 has other clusters that may not include a liquid on the stem, but which also reduce a 2- or 3-consonant cluster to one light C: ...CC-la > -la. Stress patterns may also be helpful for preserving the vowel of -la in that when the 1st syllable is stressed, the 2nd unstressed syllable tends to collapse, which encourages the 3rd syllable to be stressed, which may be the suffixed -la, lending it some stress, and thus preserve the final vowel of -la, normally lost in other forms. The 1st and 3rd stress would help 2nd vowel to disappear and the 2nd and perhaps 3rd consonants to cluster, creating a 2- or 3-consonant cluster with -la. Most interesting and consistent with the preceding phenomena is Ls tóo-ta 'stone, rock', explained at the end.

Luiséño -la suffix

Group 1 (...N-la, nasal consonant before -la):

- Ls sún-la 'heart, sad, suffer' < Egyptian swn 'suffer' (218)
- Ls 'éŋ-la 'salt' < Egyptian ħm't 'salt' (280)
- Ls kún-la 'sack' < Egyptian gwn 'sack' (330)
- Ls qiŋŋ-la 'ring snake' < Egyptian qrĥt 'snake' (332)
- Ls tón-la < *tīmīna 'antelope' < Aramaic rə'emaan-aa / reemaan-aa 'antelope' (604)
- Ls huŋ-la 'the wind' < Semitic ħwg 'atmosphere' (912)
- Ls šááŋ-la 'yellowjacket' < Hebrew širʕa(t) 'hornets' (737)
- Ls tuŋ-la < *ti(N)wa 'name' < Arabic dʕw / dʕy / daʕaa 'to call, name' (1059)

Group 2 (...š/'-la, another consonant before -la)

- Ls púš-la 'eye' < Semitic *boøser 'eye' (532)
- Ls lá'-la 'goose'; Ca la'la' 'goose' < Arabic laqlaq 'stork, n' (704)
- Ls šú'-la 'star' < Egyptian sb' 'star' (154)
- Ls qéš-la 'seashell' < Semitic qeš-aa 'measure, coin, jewel, ancient money' (1248)

Group 3 (...y/w-la, a glide/approximant before -la)

- Ls súy-la 'scorpion' < Egyptian d'rt 'scorpion' (479)
- Ls yúy-la 'spruce tree' < Hebrew yáʕar 'wood, forest, thicket, wooded heights with trees to be felled' (92)
- Ls qáw-la 'woodrat' < Egyptian q'r 'pocket, bundle' (Hp qaala; Tb haawa-l) (328)

Group 4 (...VV-la, only vowels are apparent before -la, but clusters of liquids and gutturals underlie)

- Ls púú-la 'shaman' < Egyptian phr-ta, Egyptian phr 'stir, make medicine' (3 C: ...hr-ta > -la) (290)
- Ls túú-la 'charcoal' < Hebrew tooleʕaa (3 C: ...lʕ-ta > -la) (710)
- Ls páá-la 'water' < baħr 'water' (3 C: ...ħr-ta > -la) (1165)
- Ls 'iyáá-la 'poison oak' < Hebrew 'ayil 'tree, oak' (...l-la > -la) (599)
- Ls wááwa-la 'mud wasp'; Cp wá'walim 'yellowjacket' < Aramaic ʕrʕyt' / ʕurʕyt' 'wasp' (1044)
- Ls yúú-la, -yu' (poss'd) 'head, hair' < Egyptian i'rt 'hair (of hide)' (...r-ta > -la) (389)
- Ls méé-la 'head of cattail rush' < UA *mo'o 'head' < Arabic/Semitic muxx- 'brain' (...xx-la) (1078)
- Ls húú-la 'arrow' < Hebrew ħeš / ħeši 'arrow'; Arabic ħazwat / ħużwat 'arrow' (...š-la) (78)
- Ls kúúkunta-la 'bumblebee' vs. Cp kutánjva-l 'bumblebee' show a velar nasal in Cp, with the nasal anticipated in Ls, but Cp's 3rd and 4th consonants (-ŋv- now clustered) are where the Ls word ends and shows -la, probably also explaining -la (vs. -l) as well, though no Near Eastern parallel is noticed for this item.

Another cause of Ls -la is when multiple consonants were reduced and are not visible at the end of the stem, but underlyingly exist(ed) such that their effect still underlies the stem's end just before -la:

Group 5 (...CC-la, underlying consonant clusters before -la more complex than the single consonant seen)

Ls náq-la 'ear' < Semitic na-qšab 'what perks up to listen' (3 C: ...qšb-ta > q-la) (1070)

Ls móy-la 'moon' < Semitic manzal 'star, heavenly body' (4 C: ... nzl-la > y-la) (1077)

Ls téé'-la 'belly' < Egyptian r'-ib 'stomach' (3 C: ... V'b-ta > V'-la) (337)

Ls 'éx-la 'earth, land, dirt' < Syriac ḥaql-aa 'field-the, open country-the' (...ql-la) (1275)

Ls 'áy-la 'abalone' / Ls páá'i-la 'turtle' < Arabic qarḥ- 'gourd'; Syriac qara'- 'gourd' (...rḥ-la) (988, 989)
(vs. Ls páá'aya-t 'turtles shell rattle' < qrḥ 'gourd, rattle')

Most interesting of all is Ls tóó-ta 'stone, rock' with possessed form Ls -tó'. Rare is the absolutive suffix -ta, and at 603 we see that this is the Ls reflex of UA *timī 'rock' from Syriac ryam-ta / Aramaic riimaa / riimat 'large stone'. Yet consistent with a near final nasal and a final multi-consonant cluster (*-mt-t-), both encouraging the retention of the vowel -a, we also see -t- in -ta (vs. -la), which is significant since the Aramaic form is riimat. Adding the UA suffix -ta would yield *rim^a-t-ta > *tīm-ta > *tī-ta (and Ls o < UA *ī), thus Ls tóó-ta. (...mt-ta) (603)

Ls tóó-ta 'stone, rock' < Aramaic ryam / rim(a)-taa plus perhaps another synchronic -ta (603)

6.5 Five, Hopi w vs. l/_a, e, ö

Uto-Aztecanists have long known that most Proto-Uto-Aztecan *w change to Hopi l before the low vowels a, e, ö (group 3), but that PUA *w remains Hopi w before high vowels i, ī, o (group 6). Remember the Semitic pharyngeal ʕ and glottal stop ʔ are two sources of UA w, and some Arabic speakers pronounce ʕ as w at times and as r (the other liquid) in certain environments. I heard a native speaker of Syrian Arabic say sabriina (< Arabic sabʕiina 'seventy'). Many UA sets substantiate Hopi l corresponding to UA *w in the rest of UA. However, Uto-Aztecanists have also known that a number of exceptions yield Hopi words with syllables like wa and we, which do show Hopi w before low vowels (groups 4, 5, 7). Though aware of this subset of exceptions, an explanation for the exceptions has not been found—until now. The UA tie to Near-East languages explains the exceptions, as follows:

First of all, Hopi l sometimes does come from Semitic l. Group one shows five examples of Semitic l > Hopi l. Next, the fact that the Semitic-p laryngeals (ʕ, ʔ) correspond to PUA *w underlies the solution. Those PUA *w and the would-be Hopi w from the Egyptian or Semitic laryngeals (ʕ, ʔ) do change to l in Hopi (groups 2 and 3) when before a low vowel, but when before a high vowel, PUA *w > w in Hopi (group 6) consistent with what Uto-Aztecanists have long known. However, when Hopi w comes from an actual w, whether from Egyptian w (group 4) or from Semitic w (group 5), then *w remains w, even before low vowels (groups 4 and 5). In addition, doubled laryngeals remain w; that is, *-ʔ- > *-ww- > -w-. Or in the case of consonant clusters in which one consonant is a laryngeal, which in effect doubles the rounding effect similar to *-ww-, then those clusters or doubled *-ww- in effect also remain -w- (group 7). That is, Hopi taawa 'sun' < *tawwa < Egyptian raʕwa 'sun' and Hopi siwa < Semitic šipḥaa, wherein p is absorbed to double the -w- effect of the pharyngeal: *-pḥ- > *-ww- > Hp -w-. Such phenomena explain the exceptions.

Group 1: Hebrew l > Hopi l

Hp loma 'good, etc' < Hebrew lummad 'trained' (see at 700)

Hp lööqö(k-) 'wedding' < Hebrew lqḥ / laqaḥ 'take (to wife)' (695)

Hp kwelo 'sample by tasting' < Hebrew blʕ / balaʕ 'swallow' (6)

Hp pöñjala 'thick (in size)' < Arabic pgl 'be thick' (1387)

Hp salây-ti 'pleased, joyed, gratified' < Arabic slw / sly / salaa V tasalla 'to delight, take pleasure in' (1501)

Group 2: Hebrew/Egyptian ʕ > Hopi l

Hp kwala 'come to a boil, get angry' < Hebrew II bʕy / baʕaa 'bring to a boil' (37)

Hp löwa 'vagina, vulva' < Hebrew ʕerwaa 'nakedness, genital area' (686)

Hp -laqvī in Hp kīk-laqvī 'tracks all over' < Hebrew ʕaaqeb 'heel, footprint' (685)

Hp ma-laci 'finger' < *ma-watti < ma- 'hand' + Egyptian ʕnt 'nail, claw' (262)

Hp lèesi- ‘horizontal’; Hopi lèe-ta ‘lay across’ < Arabic ʕarḏiy ‘cross- (in compounds), horizontal’ (687)
 Hp qölö ‘hole, a lot of’ < Hebrew tqʕ (1473)
 Hp nàala(-k-) ‘change places/residence, move’ / UA *nawa / *nawi < Egyptian nʕi ‘travel, traverse’ (239)
 Hp laaki ‘become dry, thin, v’ < Semitic ʕqr ‘uproot, barren’ (dried up); Arabic ʕaaqir ‘barren, sterile’ (1380)

Group 3: Hebrew/Egyptian ’ (> UA *w) > Hopi l

Hp löqö ‘pine’ < Hebrew ’egoz ‘nut’ (569)
 Hp löö(y) ‘two’ < Hebrew ’axar ‘follow/after’ (570 of Sem-p) (vs. Hp ’ahoy < ’aḥar of Sem-kw 643)
 Hp laq-ta ‘sweep snow clear’; UA *wak ‘sweep’ < Egyptian ’xi ‘sweep together’ (515)
 Hp waala ‘gap, pass, saddle in ridge’ < Egyptian w’t ‘way, path, street’ (514) note w > w, but -’- (> -w-) > -l-
 Hp qaala ‘packrat’; Tb haawa-l ‘wood rats’; Ls qáw-la ‘woodrat’ < Egyptian q’r ‘bundle, pocket’ (328)
 Hp laña ‘be pulled taut’ < Hebrew ’rg ‘weave’; Hebrew ’ereg ‘loom’ (1514)
 Hp -pela in Hp tùupela ‘cliff wall’ < Egyptian bi’ ‘quarry’ (see explanation at 465, UACV-1268c)

Group 4: Egyptian w > Hopi w

Hp mowa ‘moist, wet’ < Egyptian mw ‘water’ (229)
 Hp waala ‘gap, pass, saddle in ridge’ < Egyptian w’t ‘way, path, street’ (514)
 Hp wehe ‘for liquid to spill out’ < Egyptian whi ‘go out, slip out, run/trickle out, pour out’ (469)
 Hp wahi- ‘throw out pl objs’ < Egyptian whi ‘go out, slip out, run/trickle out, pour out’ (469)
 Hp warani ‘s.th. reserved, saved for future use’ < Egyptian wdn ‘load, offer, bring, consecrate’ (516)
 Hp wáñway ‘summon, call’ < Egyptian wx’ ‘seek, want’ (288)
 Hp wayoñ- ‘protection, windbreak’ < Egyptian wi’ ‘ward off, protect, turn away’ (517)
 Hp naawa ‘groan, moan’ (example given is old person groaning in death) < Egyptian nw ‘be weak (due to age)’ (518)
 Hpi waho(-k-) ‘for particulate matter to spill’ < Egyptian wh̄j ‘hew (stone), break (stone)’ (186)

Group 5: Semitic w > Hopi w

Hp soniwa ‘beautiful, bright’ < Arabic snw ‘gleam, shine’; Ethiopic snw ‘be beautiful’ (13)
 Hp löwa ‘vagina, vulva’ < Hebrew ʕerwaa ‘nakedness, genital area’ (686)
 Hp tiñwa ‘name’ < Arabic dʕw / daʕaa ‘to call, name’ (1059)
 Hp wiñwa ‘grow up’ < Arabic ʕlw / Hebrew ʕly / ʕalaa ‘ascend, go up, grow’ (681)
 The last two are unique in having underlying Semitic -w as 3rd C and both show -ʕw- > -ñw-

Group 6: Hebrew ʕ, ’, ḥ > Hopi w before high vowels i, o, i or if doubled (next group, group 7)

Hp wiñwa ‘grow up’ < Semitic ʕlw / ʕalaa ‘ascend, go up, grow’ (681)
 Hp wiiki ‘take along, lead, escort’ < Semitic ’rk ‘long, make long (rope), stretch’ (see details at 1516)
 Hp wiimi ‘religious rite, habit’ < Semitic ḥrm ‘dedicate’ (660)
 Hp wi-hi ‘fat, oil, lard’ < Semitic ḥilb ‘milk’ (652)

Group 7: When clustered or doubled -ww- > Hopi -w-/_a/e, whereas single -’- > -l-, not > -w-

Hp meewan- ‘forbid, warn’ < Hebrew m’n ‘refuse’ (< *mi’’)an from geminated -ww- < *’-’- (1333)
 Hp taawa ‘sun’ < *tawwa < Egyptian *raʕwa ‘sun’ (163)
 Hp siwa ‘younger sister’ < Semitic šiphaa ‘maiden’ (757)
 Hp löwa ‘vagina, vulva’ < Hebrew ʕerwaa ‘nakedness, genital area’ (686)
 Hp tiñwa ‘name’ < Arabic dʕw / daʕaa ‘to call, name’ (1059)

Matters to contemplate are Semitic-kw final -b > Hopi -ñw and some (near) final -’ > -ñw

Hp inañwa ‘heart’ < Hebrew hal-lebb ‘heart’ (1312); Hp hayiñw- ‘draw near’ < Semitic qariib ‘near’ (1008)
 Hp lölöqañw ‘bullsnake, gopher snake’ < Hebrew ʕooqeb ‘deceiver’ (1198)
 Hp koyoño ‘turkey’ < Semitic qr’ ‘cry, call’ (1357); Hp pañwi ‘bighorn sheep’ < Egyptian b’ ‘ram’ (406);
 Hp wayoñ- ‘protection, windbreak’ < Egyptian wi’ ‘ward off, protect, turn away’ (517)
 Hp kookyañw ‘spider’ < Aramaic kuuky-aa’ ‘spider-the’ (1409)

6.6 Six, Takic distinguishes Semitic-p velars (k, g > k) and uvulars (q, x, ġ > q)

Proto-Uto-Aztecans *k is generally k throughout UA, though Hopi and many Numic languages have a rule that lowers PUA *k > q before low vowels. However, in the Takic branch, we see in Ca, Cp, Ls, and Sr, both initial ka and qa. The k- vs q- distinction adjacent to other vowels or intervocalic -k/q- between two vowels might be explained by environmental factors, but to find both initial ka and qa, both before a, in those four Takic languages is a distinction not found elsewhere in UA, yet no satisfactory explanation to date explains that phenomenon in Takic. However, Semitic-p and Egyptian offer an explanation consistent with 40 of the 41 examples. Semitic has velar k and uvular q: e.g., Arabic kalb ‘dog’ and qalb ‘heart’, often pronounced [kælb] and [qəlb], k and q affecting their respective adjacent vowels. Besides q, some Semiticists are beginning to see an uvular (rather than velar) nature to Semitic *x and *ġ (Rubin 2010, 24; Goldenberg 2013, 67) or an uvular-like glottalic/ejective original in *x’ that eventually merged with *x in East Semitic and with pharyngeal ḥ in West Semitic (Rubin 2010, 24).

Interestingly, the Takic languages suggest the same: that Semitic *x and *ġ were uvular-like for speakers of the Semitic-p / Egyptian contribution into UA. First, are presented items from Semitic initial velars *ga... and *ka... > Takic ka...; and also medial -k- > -x-. Then are presented items showing Semitic initial uvulars *qa, *xa, and *ġa > Takic qa... Also keep in mind that in the four languages that show the split, q is the more marked option, and the preferable reconstruction, as k is the usual UA result: *q > k.

In fact, even though other branches of UA do not show a q vs. k distinction, other branches do show evidence of previous/underlying uvular q causing adjacent vowels to round, which velar k does not do.

(961) Hebrew deqel ‘date-tree, palm’; Arabic daqal ‘kind of palm tree’; Semitic *daqal > UA *taku ‘palm tree’: Eu takú-t; Wr tahkú; Tr řakú; My takko; Tbr takó-t; Wc taakī; Cr takī; Yq táko.

(738) Hebrew qayis/qeys ‘summer’ > UA *kuwis ‘summer’ also shows the strong rounding influence of q.

(527) Semitic baraq ‘lightning’ > UA *pīrok / Cah beroq ‘lightning’; note -a- > -o- anticipating -q.

(1402) Egyptian mx’ ‘make fast, tie, bind, fetter, v’ > UA *maġo’i- ‘bag, bind, wrap, blanket’, we see Sr q and also a deep uvular in CU, even a pharyngeal tap in WMU: TO mako ‘connect, couple, hitch together, shackle’; Sr mööq-kin ‘fold, wrap, vt’; NP mago’o ‘bag’; Kw mogwi’i ‘tanned hide’; WMU maġwáy’ / moġwé’ ‘blanket’; CU moġóy’a ‘blanket’; Sh mokocch ‘sack, bag’.

Another matter relating to rounding adjacent to q are several items showing Takic *qo..., in which other Uto-Aztecans have presumed that UA *ko > Tak qo, and then *qo > Ca/Cp qi, Ls qe, Sr qö. That makes sense and may be so; but also possible is that *qo is original and would not necessarily have to be from *ko. The fact that we also have both Takic qa and ka in those four languages suggests that uvular *q was a proto-phoneme in Takic as well as *k, or a proto-phoneme in UA, that merged with *k in other branches, and that unstressed initial *qV > *qo happened due to the uvular affecting the otherwise rather non-descript unstressed vowel, a schwa-like vowel in an uvular environment that defaults to *qo.

In the data below, we first see 6 sets exemplifying velars remaining velars: g, k > k. Then 15 other sets show Semitic uvulars qa, *xa, *ġa aligning with Takic *qa, instead of ka. Then 9 sets show unstressed or less certain vowels of Semitic qV > Takic *qo. Then 6 other sets show that adjacent to high vowels, *q > k even in Takic; that is, Semitic qi / qu / qə / iq > Tak ki / ku / kī / ik. Then 5 -q- > -x- are noted, mostly involving medial -x-, which may be the only fricative option in the UA phonology for an original uvular. Intervocalic / medial -q- exists in some highlighted Takic forms, but if fricativized, there is not an uvular fricative alternate to velar -x- in UA. So it appears that fricativization either eliminated the uvular dimension or minimized the difference enough to make it difficult to discern. In fact, Sr -q- aligning with Ca, Cp, Ls -x- in 298 below is evidence of exactly that. Given that, only one Ls form remains an exception (248). Thus, the statistical support for this explanation for the q vs. k distinction in Takic—40 of 41—is 97.5%.

Semitic velars ga / ka > UA velar *ka

(608) gdʃ / gadaʃ ‘cut down, cut off’ > Sr katu’ ‘cut up, cut (into several pieces), vt’

(636) Syriac kp’ ‘bend, bow, incline, curve, lean over’; kappēp ‘bend, vt’; Syriac kapiipuu-ta ‘crookedness’; Syriac kapaap-taa ‘anything hollow or curved, coffer’; Assyrian kappu / Hebrew kap ‘hollow or flat of hand, palm, sole, pan’; and ‘pan, cup of hand, or hollow’ is like an olla, cup, a hole/hollow: Cp kavá’mal ‘pot’; Ca káva’mal ‘olla, water jar, cup, pot’; Ls kavá’a-l ‘clay pot’; Ls kapa-kpa-ma-l ‘short, low’.

UA *kapV / kappV '(make/be) a hole, open, yawn': Ca kavi 'have a hole, be open (window, etc)'; Ca kávi-ve 'hole'; Cp kápe 'yawn'; Cp kápele 'to open'; Cp kápal 'make hole'; Sr kiviḥka 'hole'; Sr kiviḥi'q 'be a hole'. Also of kp' / kappV', note Syriac kapiipuu-ta 'crookedness' and Ca kapu-kapu 'be crooked (back, tree, etc); and Syriac kp'/kpy 'bend, bow, incline, curve, lean over'; Aramaic kpy/kp' 'bend over, turn upside down' > Ca kavay 'go round, turn around, to curve (road). And all of these Tak terms show initial ka...

Semitic medial velars *-g-/-kk-/-k- > Takic -k-/-x-:

(926) Hebrew/Aramaic 'agap 'wing, pinion feather, arm, shoulder' >

UA *wakapu > *wakaC > *waki / *wiki 'wing, feather': Ca wáka-t 'wing', Ca wiki-ly 'feather'; Ls kawí-t 'wing' (< *waki); Ls no-wki 'my wing'; Cp wiki-ly / wáki-ly 'feather'; SP wígivī-vi 'eagle tail-feather' and Hp -wíki 'feather' in Hp kwaa-wíki 'primary wing feather of the eagle' (kwaa 'eagle'). Metathesis in Ls (*waki > kawí); and SP shows the 3rd consonant *-p-. In 1103 below is Semitic medial *-kk- > Takic -k-:

(1103) Semitic dakka 'make flat, smooth' > Ls táka/i 'be straight'; Ls tááki-š 'stone for smoothing pottery'; among other UA *takka 'flat, smooth' reflexes.

(616) Aramaic dakar 'male, man' > UA *taka 'man'; Tak *tax 'person': Cp 'atáx'a; Ca táxlis-wet; Ls 'a-táax 'person, self'.

(565) Semitic makar 'sell' > UA *maka 'give, sell': Sr naamq 'distribute, give out, give to several people'; Cp né-mexe 'sell, give as gift'; Ls námxa 'give to several people, distribute'; Ca máx 'give (money, clothes), sell'. Three of the four Tak languages show -x-, but Sr does have unexpected q.

Semitic uvulars *qa-, *xa-, or *ǵa- > Takic uvular qa-

(690) Arabic ǵayr- 'other than, different from, no, not, non-, un-' > Tak *qay 'no', not kay:

Sr qai; Ls qáy; Cp qáy; Ca kílye 'not' / kí'i 'no'.

(294) Egyptian xpš 'thigh' > UA *kapsi (> *kasi) 'thigh': Tb hapši-l 'thigh'; Ls qaasi-l; Hp qàasi / qahsi 'thigh, hind quarter'; but *kasi throughout the rest of SUA. Tb shows -p- and Hp suggests a cluster, but notice Ls q instead of k, as only Takic has the q vs. k distinction, and Ls is the only Tak language with a reflex in this cognate set.

(322) Egyptian q'yt 'high-lying land, hill' from Egyptian q'i 'be high' > UA *qawi 'mountain, rock': BH.Cup *qawíca 'rock'; HH.Cup *qawíča 'rock': Cp kawí-š 'rock'; Ca qáwi-š 'rock'; Ls qawí-ča 'mountain, hill'; Gb xay 'sierra'; Sr qaiiç; Ktn kay-c; Sr qaqaaiç 'mountains all over the place' and *kawi in many SUA languages. Loss of bilabial in Gb again; cf. believe (567). Notice that both BH.Cup and HH.Cup reconstruct Takic *q, not *k. Ktn has no q, only k, and the four languages that have both available show q.

(960) Arabic qarqara 'rumble, gargle, coo (of pigeon)' (and qahqaha is similar) > UA *ka(k)kara 'quail': SP qaqqaraC 'quail'; Cp qaxá-l 'valley quail'; Ca qáxa-l 'quail'; Ls qaxáá-l 'valley quail'; Gb kakár 'quail'; Sr kakaata 'quail'; Mn qahī 'grouse'; Sh kahan 'grouse'; TO kakaiçu 'quail' (< *kakkatu). Why this from qarqara, differs from squirrel (957) is a good question, though the qahqaha synonym may be involved.

(329) Egyptian qd 'go round'; Egyptian qdi 'walk about'; Egyptian qd / qdd 'sleep'; Egyptian qdq 'wander, stroll'; semantically, Egyptian 'to dwell/live/be at a place/area, walk around there, return regularly, sleep there' etc, is summed up by the UA meaning of 'dwell, live, be':

UA *katī / *kattī 'sit, be/live (at a place)': Mn qatī; NP katī; TSh katī; Ch karī; Kw karī; SP qarī; CU karī; Tbr halit~'aahal; TO kaaç; Op katte; Eu kací; Wr kahtí; My káttek; Yq káatek; Tbr katé.

But Takic all show q, not k: Cp qa'; Ca qál; Ls qál 'live, be'; Sr qaṭ/qaṭī.

(994) Hebrew ṣqr 'uproot, weed'; MHebrew neṣeqar (< *na-ṣqar) 'be uprooted'; Syriac ṣqr / ṣəqar 'uproot, be barren, heal', impfv: -ṣquur; Hebrew ṣaaqaar 'infertile'; Samaritan Aramaic ṣaqaar 'death, barrenness'; loss of initial ṣ (perhaps in a cluster) while 2nd C q is retained in the UA forms from impfv -ṣqar, with -a- instead of -u- (such dialect variations happen), or stressed 2nd syllable of a pfv ṣ^oqar > qay: Takic *qaya/i 'uproot, weed, clean, wash': which Bright and Hill also reconstruct as *qáyi 'wash': Ls qáya/i- 'fall, as a tree, vi', blow down (a tree), vt'; Ls qáya/i- 'heal (sore), get well, vi, heal a sore, wash one's hands, vt'; Ca qáyi 'get clean, clear (ground, body, etc)'; Ca qáyi-n 'to clean, get rid of, wash, clear'; Cp qéye 'pull out, vt'; Ca qúyen 'to pull out (tree)'. Ls káyi 'to uproot' has k instead of q.

(631) Aramaic ḥamar (< *xamar) 'wine'; Hebrew ḥemer 'wine'; Arabic xmr 'to ferment'; Arabic xamr 'wine'; Arabic ximiir 'drunkard'; Arabic xamrat 'wine'; Ugaritic xmr 'wine':

UA *kamaC 'drunk': Sr qām|(ä)'q 'get, be drunk, crazy'. Ken Hill shows this Sr term to have pharyngealized vowels (ä) instead of (a), that is, with some rounding, as well as q instead of k.

(1525) Aramaic ql' / qly 'roast' > Ls qali- 'boil (food)'; not identical, but both are ways of cooking food, and the phonology is identical.

(486) Egyptian xfty(w) 'enemy(ies), opponent(s)' > UA *kaytu 'enemy, opponent': keep in mind the bilabial as first element in a cluster -ft- is not expected to remain, and intervocalic -t- > -l- in Takic, so the fact that it remains -t- does suggest the cluster, and -y- may anticipate the i after t; and the Egyptian plural suffix -w may be apparent in Takic: Cp -qáytu; Ca káytu 'rival, competitor, enemy'; Ls káytu-š; Sr -qaiš.

(328) Egyptian q'r 'bundle, pocket' > UA *kawaC 'pocket, bag' and UA *kawaC 'packrat'; the 1st has identical semantics, the 2nd only possible, but what makes me think that *kawaC 'packrat' below is from the same Egyptian root is Ls qáw-la 'woodrat' whose -la suffix is infrequent and happens when the stem ends with a liquid with laryngeal cluster or nasal. Again BH and Munro both reconstruct *q, not k:

UA *kawaC 'rat, packrat': BH.Cup *qawala 'rat'; Munro.Cup107 *qaawa-la 'rat': Mn qawa; NP kawa 'packrat'; TSh kawan; Sh kaan; Kw kaa-ci 'woodrat'; SP kaa-ci; CU kaac'a-ci 'packrat, gopher'; Hp qaala 'packrat'; Tb haawa-l 'wood rats'; Sr qää-t; Gb xar; Ktn ka-č; Ls qáw-la 'woodrat'; Ca qáwa-l; Cp qáwe-l; Ch kaaci 'rat'. Note Sr ää, and SNum lost -w-. This is in all branches of NUA, but not in SUA.

Semitic medial uvulars -q-, -x-, -ğ- > Takic uvular -q-:

(1070) *na-qšab 'what is perked up, i.e., the ear' > Sr qāvaač 'ear, leaf'; Ca náq-al; Cp náq'a; Ls náq-la; and forms resembling *naka or *nakapa in every other UA language also. Note again Sr -ä-.

(1340) Arabic pqḥ / paqaḥa 'to open the eyes, to blossom'; Syriac pqḥ 'to bloom'; Hebrew pqḥ / paqaḥa 'to open the eyes': Ls páqa- 'to sprout through the ground, of plants, v.i.'; Ca púqi 'bloom'

(298) Egyptian ḥbxn 'frog' > *wapkan > UA *wakaN/C(-ta) > *wakatta 'frog': BH.Cup *waxa 'frog'; HH.Cup *waxaa 'frog': Sr waqät 'frog'; Cp wáxači-ly 'frog'; Ca wáxačily 'frog'; Ls waxáw'ki-la 'type of frog'; Ktn wakata-t; Kw wagata/wogata; TSh wakatta 'toad'; Ch wagáta-ci 'frog'; Tb waagaaiš-t 'little frog'.

(1402) Egyptian mx' 'make fast, tie, bind, fetter, v' > UA *mağo'i- 'bag, bind, wrap, blanket': TO mako 'connect, couple, hitch together, shackle'; Sr mööq-kin 'fold, wrap, vt'; NP mago'o 'bag'; Kw mogwi'i 'tanned hide'; WMU mağwáy' / moğwé' 'blanket'; CU moğóy'a 'blanket'; Sh mokoccih 'sack, bag'. In fact, WMU has a very deep pharyngeal tap, and Sr -q- agrees.

(515) Egyptian 'xi / i'xi 'sweep together' > UA *wak / *waq 'sweep, comb': BH.Cup *wáq-? 'sweep': Ls wáqi 'sweep, brush, comb'; Cp wák 'comb, sweep'; Ca wáka'an 'sweep, clean, comb, rake'; Hp laq-ta 'sweep snow clear'; Sr wööq 'sweep, brush, comb'; Ktn wok- 'brush, sweep, v'. In Takic, 2 q and 2 k, and the original following -i may have triggered the two -k-.

Semitic qV... > Takic *qo... > qi (Ca/Cp), qe (Ls), qö (Sr)

(630) Hebrew *xole 'be sick, hurting' > UA *koli 'be sick, hurt, vi' in many SUA languages; Takic *qolV > Cp qil'íqa-t 'hot, spicy, strong'; Cp qil'íqtu'ni 'hurt, sting, vt'; Ca qél'ya 'feel sore, v'; Ca qél'ak 'peppery, pungent, creating a burning sensation'.

(957) Arabic qarqadaan 'squirrel' > UA *koñi 'squirrel': BH *qéñic 'squirrel'; Munro.Cup122 *qééñi-š 'ground squirrel': Cp qíñi-š; Ca qíñiš; Ls qééñi-š; Gb xoñit; Sr qöñt; Ktn koñit.

(864) Arabic quppat 'large basket'; Aramaic quupp-aa 'basket, large vessel' and quupt-aa; Later Hebrew quuppaa 'basket, tub, ball'. The Hebrew plural would be *quuppoot > UA *koppot 'basket': Ls qéépiš 'baby basket'; Sr qöpöt 'round kind of basket'.

(332) *-rḥ- > UA *-Nw- > -ḥ- in Takic, -ḥw- in one Nahuatl dialect, but -w- in most of UA:

Egyptian qrḥt 'serpent'; Egyptian qrḥ 'friend, partner'; *qVrḥat > UA *koNwa 'snake, twin': Cp qeqiñi-ly 'king snake' and Ls qiçeq-ḥ-la 'ring snake' < Tak *koño all reveal Tak -ḥ- from the -rḥ- cluster (a liquid-pharyngeal cluster), very natural; and while *kowa has been a common reconstruction, Kaufman (1981) *konwa and Joe Campell (1976) *koñwa, predate me in constructing a nasal *koNwa.

(1014) Syriac qadaal-aa 'neck, nape of neck'; Arabic qadaal 'occiput'; Aramaic qadaal-aa 'neck' may yield an alternate form qudl-aa; with the rounding power of q- it's a possible development whether original or not: UA *kutaC / *kura 'neck': Mn kúta; Np gguta; TSh kutan; Sh kuta; Kw kura-vi; Ch kura; SP qura-vi; WMU qurá; CU kurá-vi; Tb kulaa-; but Cp qil'y'a 'nape of the neck'; Ls qelá-t / qilá-t.

(1248) Arabic qasaṭa 'divide, measure'; Hebrew qəšiiṭaa 'ancient weight, used as money, n.f.'; MHebrew qəšiiṭaa 'a coin, a weight, lamb'; MHebrew qəšiiṭaa 'a standard value, jewel, lamb';

Syriac **qesṭ-aa** ‘measure, n.m.’ > UA *koCta ‘bark, shell, money’: Munro.Cup1 18 *qééči-la ‘shell’: Ls qéš-la ‘seashell’; Ls qéš-la ka-š ‘skull’; Cp qíči-ly ‘money, silver’; Ca qíč-ily ‘money’ (pl: qišlyam); Sr -qöč ‘hide, bark’; Sr qöčaaviam ‘money’.

(594) Hebrew ’aḥoot (< *’axoot) ‘sister’ (Syriac ḥaat-aa ‘sister’ eliminates the first syllable also) > UA *ko(’)ti / *ko’ci ‘older sister’ > Tak *qoci: Cp qísma; Ca qis-ka; Ls qee’is; Gb óxo’; Sr -qöč^r; Eu kócwa; Wr ko’cí; Tr go’čí; etc.

(449) Egyptian qq / q’q’ ‘eat’ > UA *koki ‘graze, v’: Cp qíxin ‘graze, pull out (hair)’; Ls qééxi ‘graze’.

(1163) Syriac qəpa ‘collect, gather in heaps, congeal, swim on the surface’; western variant is qap (qpp); Mandaic Aramaic qəpa ‘swim, float on the surface, assemble in a bunch’; Aramaic(CAL) qpy ‘to coagulate, to float’; Aramaic(CAL) qpy’ / qpee / qipy-aa ‘floating stuff, n.m.’:

UA *qoppV ‘mark/stripe, float’: Ca qípi / qíipi ‘be marked (of line), float (as fish, bird)’; Cp qípe ‘be striped’.

However, adjacent to high vowels, Semitic **qi / qu / qə / iq** > **Tak ki / ku / kī / ĩk**

(1166) Hebrew qedem / qedem ‘in front, east’; Hebrew qidmaa ‘(toward) east of’ > UA *kitam ‘south, east’: Ktn kítamik ‘toward the east’; Ca kíčam-ka ‘southward’; Cp kičám; Ls kíča-mi-k, kíča-nuk ‘southward’.

(986) Semitic qiir ‘wall, town’ > Tak *kiC ‘house’.

(295) Egyptian xpd ‘buttock(s)’ > UA *kupta ‘buttocks’: Ls kupča-t ‘buttocks’; Cr kicá ‘buttocks’; Wc kicá ‘buttocks’; Cp xútaxwi ‘back’ whose -t- suggests a cluster -Ct-, as intervocalic *-t- > -l- in Cupan. The first three (Ls, Cr, Wc) agree in *kupta, because PUA *u > Cr/Wc ĩ, PUA *p > ø in CrC.

(861) Hebrew qšy / qaašay ‘be heavy, hard, difficult’; Aramaic qəša ‘be hard, difficult, severe, harmful’; Syriac qš’ / qšy / qəša’ / qəšaa ‘difficult, severe, strong (of smell), harsh (of taste)’ > UA *kīsa ‘sour’: Ls kóša/i ‘be sweet or salty’; Ls kuš-úla ‘be sour’ (listed with koša/i); Cp kešelvekéšelva’a-š ‘too sour’.

UA *kīsa ‘harm(ed), bad’: Cp kéše/ kəš- ‘to injure, hurt’; Sr kí’šaa’ ‘bad’; Ktn kíša’ ‘no good, bad’.

(525) Egyptian isq ‘linger, wait for, vi; hinder, vt’ (s is lost as 1st segment in a cluster: *isqV > *ĩska > * ĩka) > UA *ika / *ikī ‘remain, be in a place, let lie’: Sr ’ikilī ‘be in a place, lie’; Ls ’óka/i ‘leave, let remain, vt; be left, vi’; Gb ’okó ‘lie down’; Cp ékeme ‘give’; Ca ’ékamax ‘give s.o. (food/drink)’; Ktn ’ik ‘lie’.

(247) Egyptian xr ‘to fall down/out’ > UA *kuri ‘fall’: Sr kur-q ‘fall, pl’; Ca kúli ‘fall (in a hole), stick (in), rush in’. The vowel u aligns with qu > ku (see below). Another set has two Ls forms, one of which has q, the other k: UA *kara ‘fall’: Ls kára ‘fall (of leaves)’; Ktn karara’y ‘fall, vi’; but also Ls qára ‘spill out, fall (as leaves, fruit, hair from the head), slide off’.

Most of these, that might be thought exceptions, show the medial uvular becoming -x-, which may be the only fricative option in the UA phonological repertoire for an original uvular. Intervocalic / medial -q- exists in the sets above, but with fricativization, there is not an uvular fricative alternate to velar -x- in UA. So the fricativization either eliminated the uvular dimension or minimized the difference enough to make it difficult to discern. In fact, the first set below (298), repeated from medial -q- above, shows exactly that: Sr shows the -q- as we would expect from an uvular -x- clustered, but Ca, Cp, and Ls fricativized that uvular to -x- as the only fricative option for -q-. Beyond those medial -q- > -x-, only one Ls form (248) remains an exception, and regarding apparent exceptions, we see doublets or alternate forms in nearly every UA language—alternate forms with b and p in Tr, Yq, My, etc, and Ca káwiya / qáwiya ‘hire, employ’, often due to contact with another language not having two options, like Ktn k, but no q.

(298) Egyptian Ḥbxn ‘frog’ > *wapkan > UA *wakaN/C(-ta) > *wakatta ‘frog’: BH.Cup *waxa ‘frog’; HH.Cup *waxaa ‘frog’: Kw wagata/wogata ‘frog’; TSh wakatta ‘toad’; Ch wagáta-ci ‘frog’; NP wakatta ‘toad’; Tb waagaaiš-t ‘little frog’; Cp wáxači-ly ‘frog’; Ca wáxačily ‘frog’; Ls waxáw’ki-la ‘type of frog’; Sr waqāt; Ktn wakata-t. Note Sr -q- corresponding to -x- of the other Takic languages.

(595) Aramaic ’axaat-aa ‘sister-the’ > Ca -wáxal^y ‘younger sister’ and Cp -wáxal^yi ‘younger sister’.

(632) Semitic xnq ‘put/wear around the neck’ > Tak *qonxa ‘necklace, s.th. around the neck’. In this, the initial x- does the expected q-, and the later medial -q- > -x-.

(654) Hebrew ḥrr / ḥrarar ‘be hoarse’; Arabic xarxara ‘snore’; Arabic xrr / xarra ‘snore’ > Ls xaráa-ya ‘snore’. This Ls form from Semitic-p *x > x may have lost prefixed morphemes to show -x- instead of q- or k-.

(244) Egyptian nxx ‘be old, vi; old age, n’; Egyptian nxx ‘youth, boy’; Egyptian nxn ‘young’; Egyptian nxnw ‘child’; Egyptian nxnw ‘youth (abstract)’; for Egyptian nxx to mean both ‘age’ and ‘youth’, the common sememe is ‘grow’—grow up / grow old—and UA *nakan has the same range—grow up / grow old; the stems nxx and nxn underlie a similar pair of alternate forms in Egyptian nxx.t / nxn.w ‘kind of bread’: UA *nakana ‘grow’: BH.Cup *naxá ‘old man’; HH.Cup *naxáa ‘old man’: Sh nahnaC ‘grow up’; Kw nahna; Cp naxánču ‘ve-l ‘old man’; Ca náxaluvel ‘old man’; Ls naxááču ‘become an old man’.

(248) Egyptian xr ‘speak to, so say, vi’; Egyptian xrw ‘voice’ > Ls kára/i ‘belch, croak, ring’.

6.7 Seven, Uto-Aztecan *-w- > Luiseño -ŋ- vs. Uto-Aztecan *-w- > Luiseño -w-

Sapir (1915) noticed one instance of UA *-w- > Ls -ŋ-, that is, UA *siwa ‘woman, girl’ > Ls šuŋáa-l. Munro (1973) listed a few more in a 1973 IJAL article, such as Ls túŋ-la ‘name’ (< UA *tīwa ‘name’), qiqéŋ-la ‘ring snake’ (< UA *koNwa ‘snake’), and Ls hiŋéé-ma-l ‘boy’. Munro also notes that this only occurs medially, not initially. She also knows that even medially, most UA medial *-w- remain Ls -w- (148, 150, 159, 165, 229, 251, 332, 328, 488, 570, 600, 835, 1031, 1044, 1163, 1523). Even in cases of Ls -ŋ- (757, 1059, 332, 1237, 411, 412, 413, 270), Ls is sometimes not alone in having *-ŋ-, as some sets (757, 1059, 332) show other NUA languages sharing -ŋ- with Ls. In 1059, Hopi -ŋw- and Tb -ŋw- have some nasalization like Ls túŋ-la, while the other Takic languages and the rest of UA all have -w- in *tīwa ‘name’. So what underlies the differences? As stated several times previously, any one of four Semitic phonemes—w, ʕ, ʃ, or ʔ—can yield UA *w when initial or intervocalic. However, when one of those is the 2nd consonant in a consonant cluster, the result is usually -ŋ- in Ls, and depending on the components of the cluster, sometimes -ŋ- in other NUA languages as well.

One of those four rounding phonemes as 2nd segment of a cluster yields -ŋ-: *-CW- > -ŋ- (W = w, ʕ, ʃ, or ʔ) (757) Hebrew šipḥaa ‘maid, maid-servant’ > Tak *suŋa ‘man’s daughter, wife’: Cp šuŋama ‘man’s daughter’; Ca súnama ‘man’s daughter’; Ls šuŋáa-l ‘woman, wife’; Gb ásoŋ ‘wife’; Sr šuuŋ ‘man’s dau’; Ktn huŋ ‘descendant’ and Ktn nīmihuŋ ‘wife’. All Takic languages do as Ls in their reflexes.

(1059) Arabic dʕw / daʕaa ‘to call, name’ > UA *tī(N)wa / *tīnwa (AMR) ‘name’: Hp tīŋwa ‘name, refer to, vt’; Tb ʔindīŋwa-l ‘name’; Cp téw’a ‘name (n. poss’d)’; Ca téwa-l; Ls túŋ-la; Sr tīwan(č) ‘name, n’; Ktn tīw; TO cīck ‘name, vt’; TO čīig ‘(1) find, (2) call by name’; Eu tewát; Tbr temwa-ra; Yq tea; My tééwam; and *tīwa in most other SUA languages. Semitic has an underlying *-ʕw-, convenient for Hp -ŋw-, Tb -ŋw-, and Ls -ŋ-. Even though the perfective daʕaa and other forms seldom reflect the underlying -w- or -y- of such verbs, UA exhibits those underlying consonants (daʕwa) more often than most Semitic languages do.

(681) As in dʕw / daʕ(w)a above, ʕlw does the same in Hp as l > N often in NUA, and the pharyngeal helps *-lw- > -ŋw-: Semitic *ʕalaa / *ʕal(w)a ‘ascend, go up, grow’ > UA *wīla ‘grow’, but Hp wīŋwa ‘grow up’.

(332) *-rḥ- > UA *-Nw- > -ŋ- in Takic, -ŋw- in one Azt dialect, -w- in the 20 other UA languages:

Egyptian qrḥt ‘serpent’; Egyptian qrḥ ‘friend, partner’ > Aztecan *koŋwa ‘snake, twin’ or UA *koNwa ‘snake’ reflects a -rḥ- cluster (< *qVrḥat), as well as the feminine ending -at > -a. Cp qeqiŋi-ly ‘king snake’ and Ls qiqeŋ-la ‘ring snake’ < Tak *koŋo have Tak -ŋ- from the -rḥ- cluster (liquid-pharyngeal cluster), very natural. UA *kowa is often reconstructed, yet Kaufman (1981) *konwa and Joe Campbell (1976) *koŋwa, predate me in constructing a nasal *koNwa. CN kooaa-tl ‘snake, twin’ has an odd pair of meanings, yet their Egyptian source-form also has both ‘snake’ and ‘partner’:

(1237) *-p’- > -ŋ- in Tak (Cp, Ca, Ls), > -w- in Tb: Semitic *roop’-aa ‘healer’ > UA *toŋa ‘cure, administer to’: Cp tījele; Ca tīŋ’ay ‘cure, doctor s.o.’; Ls téŋal ‘to cure, doctor with herbs’; Ls téŋala-š ‘medicine’; Ls téŋalka-t ‘herb doctor’. Note Tb dzowaa-l ‘shaman’. Ca -ŋ’- may suggest a cluster.

In the next three, the two successive pharyngeals (ʃ and ʕ) seem to strengthen the 2nd enough to become -ŋ-:

(412) Egyptian ḥʕi ‘be glad, happy, rejoice’; Egyptian ḥʕwt ‘joy, rejoicing’; Egyptian ḥʕʕw ‘be happy’ > Ls heŋča-wu-t ‘cheerful, contented’. Ls e < UA *o, so UA *howV reflects the two pharyngeals well.

(413) Egyptian ḥʕ’ ‘child, boy’ > Ls hiŋé’-ma-l / hiŋéé-ma-l ‘boy’. UA *howo’ / hoŋo’ > Ls heŋé’-, then unstressed Ls e > i, and Ls even shows the 3rd consonant glottal stop in the one variant, besides the first two consonants matching in these three sets (411-413): Egyptian ḥʕ > UA *how > Ls heŋ.

(411) *-ʕw- > UA *-ŋ- > NUA -ŋ-, SUA -n-: Egyptian ḥʕ / ḥʕw ‘body’ > UA *hoŋa ‘body’; Tepiman n corresponds to NUA ŋ, so UA *hoŋa ‘body’ > TO hon ‘body’; Nv hona ‘body’; PYP hona ‘body’. Regardless

whatever else may occur in these three (411-413), considering that ḥś would correspond to UA *how and that to Ls heṅ-, and that the three meanings associated with Egyptian are ‘happy’ and ‘boy’ and ‘body’, all quite different, and that the expected reflexes in UA/Ls have the same three meanings in UA is striking.

A cluster of a nasal plus pharyngeal/laryngeal in either order strongly tends toward -ḥ- in NUA, as we also see in the four instances of the cluster *-m’- > NUA -ḥ- > SUA -n- (salt, lung, husband, left) and in which some Numic languages actually show -m- also, while Ls, with the rest of Tak and Hp and Tb have -ḥ-.

(1246) *-m’- > -ḥ-: Old Canaanite hassim’al ‘the-left’ > Tb aašīḥan ‘left side’

(280) *-m’- > -ḥ-: Eg ḥm’ / ḥm’t ‘salt’ > UA *omwa > *oḥa ‘salt’

(281) *-m’- > -ḥ-: Eg sm’ ‘lung’ > UA *somwo > *soḥo ‘lung’

(284) *-m’- > -ḥ-: Eg qm’ ‘create, beget’ > UA *kumwa > *kuḥa ‘husband’

(940) *-mś- > -ḥ-: -mśak ‘squeeze, crush, rub’ > UA *ḥaka/i ‘grind, scrape, rub against’

(941) *-nś- > -ḥ-: -nśar ‘shake, grunt, roar’ > UA *ḥiy ‘shake, be dizzy’

Thus, the pharyngeal-plus-nasal cluster (*-ḥn-) in 462 behaves similarly:

(462) Egyptian ḥḥn ‘shine, gleam, sparkle’ > UA *toḥo / *toḥa ‘shine (of sun), be hot, heat (of) sun/day’:

Sr tööḥava ‘(in the) summer’; Cp tíḥe ‘be hot’ (Cp i < UA *o); Ca tíḥma ‘warm’; Hp tööḥi ‘heat, hot weather, heat of the day’; Ls itéḥvu ‘hot spring’; Ktn toḥava ‘August, summer’; TO toni ‘be hot’; TO tonod ‘shine, twinkle’; TO tonolid ‘shine onto, give light to’; NT tonóli ‘sunshine; ST tanoolyiop ‘in the sun’; Wr tono/toni ‘boil’; Eu tonó ‘be hot, boil’; CN toonal-li ‘warmth of the sun, summertime, day’; etc.

(270) Egyptian dbḥ ‘ask for, beg’ > Mn típiwí / tíbiyu; NP tíbiḥa; TSh típiḥa; Sh títipiah; Sh tíbiḥa ‘ask for’; Kw tívina; Ch tíviḥi; SP tívi / tívi-ḥu ‘to ask’; CU tíviyuy; Hp tíviḥ-ta ‘ask (for), inquire of’; Ls tuyvuḥi ‘ask a question’; Cp túvyuḥ ‘ask’. This set is a bit puzzling in that a non-clustered *-ḥ- > -ḥ-; it may have an additional morpheme, as shown in SP, but all the other languages have a nasal without showing such a morpheme break. Note the alignment of SNum or CU tíviyuy and Tak tuyvuḥi.

Instances of UA *-w- remaining Ls -w- apparent in this tie are mostly from Egyptian or Semitic solitary or intervocalic -w- or -ʿ-, and not from clusters with laryngeals as are the sources of Ls -ḥ-:

(165) Egyptian rwi ‘dance, v’ > UA *tawiya / *tuwiya > *tuya ‘dance’; redupl *tu(w/v)tui: AYq tatawiilo ‘turn around, vi’; Sr tuhtu ‘dance, vi’; Ktn tuhtu ‘dance, vi’; Ktn tuhtuic ‘dance, n’; Ktn tuhtuhyit ‘dancer, n’; Ls tooḥuwi-š ‘guardian spirit, person who performs a certain dance, the tatahuila’.

(229) Egyptian mw ‘water’; Egyptian mwy ‘watery’ (Coptic mu) > UA *muwa/i ‘wet’: Hp mowa-ti ‘be wet, moist’; Ls páá-muwi-š ‘wet’.

(322) Egyptian q’yt ‘high-lying land, hill’ from Egyptian q’i ‘be high’ > UA *qawi ‘mountain, rock’: Cp kawí-š ‘rock’; Ca qáwi-š ‘rock’; Ls qawí-ča ‘mountain, hill’; Gb xay ‘sierra’; Sr qaiič; Ktn kay-c; and *kawi in many SUA languages.

(600) Hebrew ro’e ‘seer’; Hebrew r’y / raa’aa ‘see, v’ > UA *tiwa ‘find, see’: Hp tiwa ‘find, perceive’; Tb tiwat~iitiw; Cp tewa ‘see’; Ca téew ‘find, discover’; Ls tów ‘see, look at’; Ls tooḥwi ‘see by second sight, be clairvoyant’; TO cīg(id); PYP teega ‘find, see’; Eu téwa; Wr tewa; Tr fēwa / tewa; My téwwa; Yq tea.

(148) Egyptian t’yt ‘shroud’ > Ls tawaayi-š ‘cape-like garment of twisted strips of rabbitskin formerly, but now any kind of cape’ (Elliott); UA *tawayi, redupl UA *tatawayi > *talawayi ‘wrap around’: Eu hitárove / hitárawe ‘put on, get dressed’; Tb talaawiš(-it)~’atalaauš ‘go around’; Tb talaaw~’atalaauš ‘he encircles it’.

(150) Egyptian t’ ‘earth, land, ground, country’ (Coptic to) > UA *tiwa ‘sand, dust’: Hp tiwa ‘sand’; Hp compounds suggest an originally larger semantic range to include ‘dust, earth’: Hp tiwa-qal- ‘(at) the edge of the land, seashore, horizon’ (qal ‘edge’); Hp tiwa-nasave ‘the center of the earth’; Hp tiwaḥw-ti ‘decompose, turn to dust, become part of the earth’; Tb tiwí-t ‘dust’; Cp tiw- ‘dust’; Cp tewwaḥa ‘where dust was’; Ls tooḥu-t ‘dust in the air’ (Ls o < *i); Sr tiüwa-ḥ ‘earth, ground, land, world, country, floor, dirt, dust’.

(1031) Semitic-p qn’ ‘be jealous’, impfv: -qna’ > UA *nawa ‘jealous’: Cp náwe ‘be jealous of, vt’; Ca nawaan ‘be jealous, vi’; Ls nááwin ‘be jealous’.

(328) Egyptian q’r ‘bundle, pocket’; the similarity of UA *kawaC ‘pocket, bag’ and UA *kawaC ‘packrat’, and both semantically derivable from q’r ‘pocket, bag’ may point to q’r > *kawaC ‘packrat’ also:

UA *kawaC ‘rat, packrat’: Tb haawa-l ‘wood rats’; Sr qää-ḥ; Gb xar; Ktn ka-č; Ls qáw-la ‘woodrat’;

Ca qáwa-l; Cp qáwe-l; Hp qaala ‘packrat’; NP kawa ‘packrat’; Mn qawa; TSh kawan; Sh kaan; Sr and SNum lost intervocalic -w-: Kw kaa-ci ‘woodrat’; SP kaa-ci; CU kaac’a-ci ‘packrat, gopher’.

A lone intervocalic pharyngeal -ʕ- usually remains its expected and usual -w-:

(488) Egyptian šʕt 'kind of bread/cake'; Egyptian šʕyt 'Schot biscuits or baked goods' > UA *sawa 'make tortillas or bread' and *sawic-ta 'bread': Ca sáw 'make tortillas'; Ca sáwi-š 'tortilla'; Cp šáwi-š 'bread, acorn bread'; Sr šaawt 'bread, acorn bread'; Ls šáwa/i 'singe, get singed'; Ls šááwa-kaa 'cook tortillas'.

(1044) Aramaic ʕrʕyt / ʕurʕyt 'wasp'; Aramaic ʕaaraaʕii-taa 'wasp-the, n.f.' > UA *wa'wa 'wasp':

Ls wááwa-la 'mud wasp'; Cp wá'walim 'yellowjacket'; Tb weweehyuu-l 'yellowjacket'. In this instance, we see from Aramaic ʕaaraaʕii-taa that UA *wa'wa results from a later cluster after the 2nd vowel syncopated, not from an original cluster (as in 332 above): ʕaaraaʕii- > warawV > warwa > wa'wa. Note Tb -y- (< *-y-).

(251) Egyptian sʕ'y 'tremble, v' > UA *sawi(ya) 'fear, v': CN iisawiaa 'be overawed, vrefl, frighten, outrage s.o., vt'; Eu sevice 'be afraid' (*w > v); Ls suwó 'be afraid of' (if *sawi > suwī > Ls suwo'). The difference between 251 and 413 is the double pharyngealization in 413 (see above) vs. a single pharyngeal in 251.

1522 does not have a pharyngeal or laryngeal, and may not even tie to Hp and Tb, thus -w- in all of Takic.

(1522) ham-madwe 'the-menstrual blood' > *hiNtwa > *i(N)kwa > Hp iŋwa 'blood'; Tb ikwa-l (*tw > kw, AMR 1991, 1993a); loss of -k- in Tak *iwi: Munro.Cup17 *'əwi-la 'blood': Ls 'ów-la; Cp 'əwə-l; Ca 'éwi-ly.

The one instance of glottal stop-plus-w remained as such (*-'w- > -'w-):

(159) Egyptian t'w / t'y 'take up, seize, steal, collect, gather/bring together' (> Coptic jiwe) >

UA *tī'wi / *tu'wi 'gather seeds, harvest': Ls tó'wi 'gather (as seeds), harvest'; Numic tu'u 'take (pl obj's).

(835) Sem-p *ya'zez / *ya'hēz 'grasp, take' > SP yaŋwi 'carry'; CU yáa'way 'carry, take by hand'; Cp yáwe 'bring, carry'; Ca yáw 'to catch, touch, have, hold, take care of'; Ls yááw 'have, hold, take'; Sr yaa' 'take, carry'; Sr yaa(i) 'take, seize, catch'. Given UA -ŋw- / -'w- / -w-, this does belong, but merits thought.

835 (-'x-) and 159 (-'w-) contain clusters in which I would not have been surprised to see Ls -ŋ-, but what they have in common is glottal stop as 1st consonant, and neither 1st or 2nd is a pharyngeal, though the glottal+uvular cluster in 835 *-x- comes close, and we do see -ŋw- in SP and -'w- in CU.