

THE COLVILLE EVIDENCE IN THE RECONSTRUCTION OF PEIS VOWELS

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1. Introduction. This paper attempts to integrate Colville (Cv) evidence with the material in Columbian (Cm) and Coeur d'Alene (Cr) utilized by Kinkade and Sloat (KS)¹ toward the reconstruction of Proto-Eastern Interior Salish (PEIS) vowels. It is simplest to introduce Cv evidence following KS's format, starting with the Cv vowel inventory, restating the hypothesized PEIS vowels, and adding the available Cv forms to the cognate sets that represent the reflexes of each proto vowel.

2. Colville vowels. Cv vowels are i, u, and a. ə is (1) automatically inserted in the following environments (R resonant, Ċ glottalized consonant, C (other) consonant):

$$\begin{aligned} &C_1^4 - RC_0^2 \\ &\dot{C} - C \left\{ \begin{array}{l} \# \\ C(C) \end{array} \right\} \\ &C_1 - C_1 C \end{aligned}$$

- (2) interconsonantly a redundant feature of deliberately slow utterances (e.g. a word repeated for the benefit of one who didn't understand it);
(3) the unexplained unstressed vowel grade of a few roots: təkʷ, ʔəks, and a few others; (4) unexplained in a few cases where it alternates with Ø, for example preceding the actual aspect c- (əc- ~ c-).

3. PEIS vowel reconstructions. KS reconstruct a PEIS system that includes *a *i *u and "three types of the ə," a full-grade vowel, a secondary ablaut grade of the other three vowels, and an epenthetic, "largely predictable" ə. This last is not discussed in detail by KS, and is not considered distinctive in PEIS.

4. Cognate sets. Cm and Cr cognates are divided in five sets, one for each reconstructed phoneme. Each set is subdivided by the environments that condition the Cm and Cr reflexes. Schematically, the "most characteristic developments of PEIS vowels" may be charted thus:

*	Cm	Cr
*a	a	a (/ ^C _{-[+back]}) ² i
*i	i	e (/ ^C _{-[+back]}) i
*u	u	ɔ (/ _{-[+back]}) u
*ə ₁	i (/ ^ᶜ)	a (/ ^C _{-[+back]})
	ə	ɛ
*ə ₂	ə	ə

The reconstruction of each PEIS vowel phoneme and the Cm and Cr evidence adduced by KS is now discussed in detail, alongside the Cv evidence as it confirms KS's analysis, or as it suggests revisions.

4.1. *a. KS found the reflexes of *a to be (A) Cm á, Cr á; (B) Cm ə, Cr á, (C) Cm á, Cr é, exceptionally; (D) Cm ə, Cr í; (E) Cm á, Cr í, regularly. KS list irregular, unexplained correspondences in (F).

A. KS list 45 etymologies showing Cm á, Cr á. 29 of these occur before back consonants, with or without an intervening consonant; 16 are unexplained.

1. Cm á, Cr á, (Cv á). In Cv, as in Cr, a back consonant or an r prevented the *a, i shift, as evidenced by the following items which are numbered to correspond to the KS lists: (2) wár frog, (6) n(a)ʔáq rot, (7) ɣáq pay, (9) cʔaqʷ summer, (10) ɬaxʷ escape, (13) ɬax friend, (14) paɣ scrape, (16) ʔayxʷ tired, (17) sa(?)xʷ melt, (18) caʃ holler, (19) ɣaʃ fan, (20) yaʃ gather, (21) -álqs clothes, (25) -asqət day, (26) -alqʷ tree, (29)

-axən arm. Two Cv forms, for reasons that remain unclear, show a pre-Cv *a, subsequently i, metathesized with the back consonant that followed it. This metathesis, not an uncommon phenomenon in pre-Cv, must have preceded the *a > i shift, otherwise the *a would have remained Cv a. In these two cases, (1) kʷri yellow, (8) s-qʷsiʔ son, we can infer pre-Cv forms, respectively *kʷar and *(ʔ)asqʷ, but the processes by which they developed into Cv are not altogether clear. In the case of kʷri the laryngealization of r is problematic; in the case of s-qʷsiʔ the Cv root is probably to be interpreted as /qʷVs.

Unlike Cr, where both -iip and -aip are found, the latter before a suffix containing a back consonant, only Cv (28) -iip tree occurs; on the other hand it is possible that Cv (5) xʷam-qən roan animal has retained a because of the back consonant of the suffix.

The Cv form (15) ʔʷəs-ʔʷisxəʔ robin is not directly comparable with either of the other two cognates and, in fact, the analysis of the Cm and Cr forms is unclear. Is it Cm s-xax-wisxəʔ and Cr wəs-xaxʔ? In any case, the Cv reflex of *a between or before x is not to be found.

Finally, the two forms Cv (4) papq, pipq have assumed, according to an informant, complementary meanings, papq referring to the weasel in winter, and pipq to the weasel at other times.

2. Cm ə, Cr á, (Cv á). Of the 16 examples in this section, 5 represent borrowings. Cv has a in these. These forms were borrowed after the *a > i shift had taken place. Of the remaining 11 examples, four known Cv cognates retain a post-tonic pharyngeal, which regularly prevented the *a > i shift: (33) xʷaʔt duck, (36) caʔn grasshopper, (38) maʔi fly, (40) swaʔw cucur. I infer that Cm and Cr lost the pharyngeals in these forms after the *a > i shift had taken place.

Two other Cv items, (31) scim bone, (32) ciw wash, indicate that it is only the Cr forms that developed irregularly, and remain to be explained, while the Cm and Cv reflexes are regular. We note further that Cr (30) qʷam-qʷamt pleasant is irregular only in V₂, and that the behavior of V₁ in Cv qʷam-qʷam-t is similar to that of a in (5) xʷam-qən. The reflexes of another form remain unexplained in all three languages, (37) Cm máʔi, Cr maʔi, and Cv mʔal warm water.

B. KS list only two examples of Cm ə, Cr á. The Cv cognates are (46) mʔʃas kidney and (47) mʔʃait pus. Neither cognate supports the hypothesis that these are reflexes of *a. Each Cv form has only one vowel, a, which corresponds to Cm ú, Cr u, not to Cm ə, Cr á. Cv (46) is probably analyzable as mʔ-ʃas, where -ʃas is a variant of -us with pharyngeal displacement and total vowel assimilation.³

C. KS list 11 examples of Cm á, Cr e; 37 examples of Cm á, Cr é, which share the environment of a word-final glottal stop; 6 borrowings; and 22 other unexplained pairs.

1. Cm á, Cr e, (Cv í). Cv (48) maʔmʔim women, (50) swit who, (51) kaʔis three, (52) xmin enemy, (56) mikiyaʔ blood, all exhibit í, as expected. What remains unexplained in this set is the stress shift that took place in Cr, from the final syllable to earlier in the word.

2. All Cv forms that include the suffix -aʔ retain the vowel as a; the others do not, and the development of *a is irregular: Cv í (stressed), ə otherwise. Thus Cv (62) ʔacqaʔ go out, (63) cikʷaʔ left side, (65) ʔitxʷaʔ camas, (66, 70) -icaʔ body, (67) picaʔ digger, (75) tinaʔ ear, (76) taʔtupaʔ great-grandfather/child, (77, 79, 8), 83, 84, 85, 87, 88, 89, 91) -aʔ, (92) -inaʔ ear, (93) -iplaʔ handle, (94) -icaʔ blanket, surface, (95) -icaʔ body. In all these forms -aʔ is unstressed. In two forms, Cv (72) stʔiʔ grass, and (73) ʔiʔiʔ canoe, the reflex is i, suggesting that Cv -iʔ does not correspond to the suffix *-aʔ, or at least that Cv, before the shift, interpreted these two forms as not including that suffix. Moreover, stress in the Cv forms has shifted to the final syllable, and a glottal stop has intruded before the last vowel. These are not isolated instances of ʔ-insertion. It should be noted that the ʔ-insertion and the Vʔ - ʔV metathesis produce similar results (Cf (6) n(a)ʔaq, (9) cʔaqʷ). In all such cases we may infer pre-Cv forms CVC, but for the moment we lack information about the conditioning factors that triggered these phenomena.

The remaining Cv forms exhibit ə: (74) s-təmkaʔ-ilt daughter, (81) ccəʔ-ups younger sister. The reduced grade is a function of the shift of the stress to the suffix. However, the language does not seem to have preserved either of these roots (roots like təkəʔ and ccəʔ would not fit

the Colville canon) without strong suffixes.⁴ The analysis of these forms is problematic in any case: if ca? is the root in Cv (81), then the form does not contain the reflex of the suffix *-a?.

3. Cm á, Cr é, (Cv á). The set of six borrowings presented here differs from that discussed in A.2. only in the Cr reflex. Analysis of these forms reveals that Cm and Cv regularly borrowed as [a] French [ã] and [e] and English [æ] and [ə]; and that Cr borrowed French [ã] and English [a] as [a], and French [e] and English [æ] as [e]. With respect to (100) Cm súlcas, Cr sóltes, Cv sultás, I should point out that the item is borrowed from English, and not French, that the word-final [-z] is retained in each language as [-s], and that in Cv the stress pattern has conformed to that of the more common borrowings from French, which, incidentally, is favored by Cv, a language where stress tends to move to the end of the word according to these rules of weighted morphemes: strong suffixes have weight 3, weak suffixes 1; strong roots have weight 2, weak roots 0. The heaviest morpheme receives the stress. Thus a strong root is unstressed in construction with strong suffixes, but stressed in construction with weak suffixes, and so on. Of two or more consecutive strong suffixes it is the rightmost that retains stress.

4. (a) Cm á, Cr é, (Cv á); (b) Cm a, Cr é, (Cv i, a). The Cv evidence does not help as much as one would wish in the analysis of the correspondences listed here. Although two forms exhibit ablaut, (110) máy, miy tell, (113) iik^w, iak^w pierce, five others have only a, and remain unexplained: (102) ?am(t) feed, (103) ?amút sit, (105) ?awt follow, (106) sac tie, (111) myai too much. It would only be conjecture to advance that the initial ? and s might have prevented, in these cases, the *a > i shift (for a counterexample cf (133) Cv ?ip wipe), and, if that were the case, the Cv forms would still remain unexplained. On the other hand it may be more reasonable to suspect that y (and w) prevented the shift to i in Cv (cf 4.2.B.).

There are no available Cv cognates for (114) and (115), and Cv (117) wx^w hang has been recorded unstressed only. Cv (116) ki?lilx^w bark has unstressed i, which is unusual (unstressed vowels nearly always reduce),

and remains unexplained. Likewise in (119) áa?k^wilx shaman, the a remains unexplained. But in Cv (122) mila? bait, the a is probably segmentable, although the discrepancy in stress remains unexplained.

D. KS list 3 examples of Cm ə, Cr í. None of the Cv forms belonging to this set has been recorded stressed.

E. KS list 98 examples of the regular change of *a to Cm á, Cr í, (Cv í). Except for Cv (225) kama? pine needle, (226) ka?iis three and (227) q^way low place, which remain unexplained, PEIS *a regularly became Cv i. Cf Cv (129) sípon daughter-in-law, (133) ?ip wipe, (134) slíp wood, (135) qíp^wa? nut, 136. mrim doctor, (138) limt glad, (140) stim what, (143) piwt light, (145) wiw back, (147) siw ask, (148) k^wik^wox^wha? mouse, (151) píca? digger, (153) tič pitch, (154) q^wic full, (156) k^win take, (157) x^wmink like, (158) tína? ear, (160) k^win pick, (164) sqiltk meat, (165) q^wiləm sing, (166) qəlsípiləm Kalispel, (167) cíl shade, (168) -ilt child, (169) mií rest, (170) kií give, (171) xíl fear, (172) s-píí-am bitterroot, (173) s-xíí climb, (174) tím easy, (176) ?is change, (181) q^wo-q^wəwiya? chipmunk, (184) líik thin, (187) níkəix^w son-in-law, (188) wix dwell, (189) cíx brother-in-law, (190) s-mík^wət snow, (193) ?ík^won fish egg, (195) wnix^w true, (202) -ip door, (203) -iws middle, (206) -itk^w water, (209) -ink stomach, (210) -ína? ear, (212) -ilt child, (214) -ilx^w skin, (216) -íica? body, (217) -iix^w house, (219) -iks(t) hand, (220) -ikst hand, (221) -ip bottom, (222) -ípla? handle, (224) -iip tree.

Of the remaining 20 forms for which Cv cognates are available, two occur with both i and a: (152) qick, i-qá-qc-a? older brother, (223) -i(?)st, -ast projectile. qick and iqaqca? are both regular developments, not so -i(?)st and -ast. Six forms exhibit a, contiguous to y or w: (137) yal run, (141) s-myaw Coyote (probably borrowed), (155) wanx wardance, (175) q^way black, (178) q^way plenty, (191) yak^w cross; one exhibits a following word-initial glottal stop (similarly to (102) ?am feed and (103) ?amút sit), (146) ?awt follow; one has i following initial glottal stop, (133) ?ip wipe; four are irregular in Cv: (132) ikap bucket, (149) sa?stám sibling-in-law, (199) ía? next to, (208) -xan foot. Two other Cv forms exhibit a regularly before back consonants, (131) sxápa? grandfather, (159) qáqna? grandmother,

in reduplicated constructions. Finally, three Cv forms have either meta-thesized a? - ?a or they have inserted a glottal stop before the root vowel, and while (200) wahá bark suffixes a reduplicated final vowel, (128) kxan follow has probably developed from an original disyllabic root.

128.	Cm kxap	Cr č:šip	Cv kxan	<u>go along</u>
150.	q'a?c	q'ic	q'ac	<u>warm</u>
194.	pax ^w	pix ^w	p'ax ^w	<u>shine</u>
197.	k'a?	k'i?	k'a(m)	<u>bite</u>
200.	wah	wih	wahá	<u>bark</u>

F. Irregular correspondences. Cv (228) sq'aq^w prairie chicken, (22) ma?w break, (230) q'a?w drunk confirm the fact that the Cr cognates have developed irregularly. Cv (321) x'a?nik thornberry, (232) x'uy go, confirm the fact that these items have undergone irregular developments, but it isn't clear how, and in which language(s) the regular developments took place. Cv (235) čon-čan suggests that its pre-Cm and pre-Cr cognates also had a pharyngeal; its presence would have prevented the *a > i shift in Cr.

4.2. *i. KS found the reflexes of *i to be (A) Cm í, Cr é; (B) Cm i, Cr i; (C) Cm í, Cr í, regularly. They list irregular, unexplained correspondences in (D).

Sets (A) and (C) are in complementary distribution, (A) exemplifying the reflexes of *i before back consonants and (B) elsewhere. Cr e could be accounted for with a rule that lowers i to e before back consonants. In my discussion I will include (C) in (A).

A (and C). KS list a set of 61 correspondences Cm í, Cr í, é. Except for Cv (246) k'saw greet, all other known Cv cognates have i: (236) piq white, (238) liq bury, (241) ciq^w skin, (242) š'os-š'isx^{a?} robin, (243) ptiq^w spit, (244) ciq^w spark, (245) ?itx'a? camas, (247) qəlispíləm Kalispel, (248) ylmix^{wəm} chief, (256) sīpi? hide, (257) čip pinch, (260) ululim iron, (261) xiw raw, (262) tkiw1 climb, (263) kit near, (264) c-xit corrugated, (265) twit boy, (266) x'it first, (267) k'it flea, (268) ?istk winter, (269) picx^w disgust, (270) kic arrive, (271) ka?kic find, (272)

skicx^w Coeur d'Alene, (274) sič blanket, (275) tič pitch, (276) q'in green, (277) ptwina?x^w old lady, (278) tinx sinew, (279) sinca? younger brother, (282) ma?min rub, (285) cilkst five, (286) q'il cheat, (287) iil sprinkle, (288) ša?k'ilx shaman, (289) ?iion eat, (290) k'iš take off, (291) miy know, (294) wik see, (295) nik cut, (296) xik miss, (298) čik'a? left, (301) čix^w fishhawk, (302) ylmix^{wəm} chief, (303) qix'elx sucker, (304) qi?x^w stink, (306) kit near, (309) yasukri Jesus Christ, (311) -iča? blanket, (312) -cin mouth, (313) -qin head, (315) -ikən back.

B. KS list 8 pairs of examples of Cm i, Cr i. Of these, six are polysyllabic. The first four,

248.	Cm yilmix ^{wəm}	Cr yilmix ^{wəm}	<u>chief</u>
251.	yilám	dilím	<u>run</u>
252.	miyái	myéi	<u>too</u>
253.	smyáw	smyíw	<u>coyote</u>

can be explained by similar rules in each language, provided that no contrast exists in either language between yil / yl (il) (in Cr dil / dl), miy(V) / my(V) (mi(V)), if we posit underlying forms

Cm yilmix ^{wəm}	Cr yilmix ^{wəm}
ylám	dlím
myái	myéi
smyáw	smyíw

and phonotactic rules of i-insertion. The fifth pair, (254) Cm sti?ičxən Cr sti?ičšən killdeer can be explained similarly, adding that the sequence ií (.yí) is interrupted by the ? in Cm. Cv has (248) ylmix^{wəm}, (251) yal, (252) myai, (253) smyaw (probably borrowed from Cm). If the proto form was *yal, then Cv retained a contiguous to y, and Cm and Cr metathesized VC₂ in middle forms (-m), which regularly show *a as a in Cm and i in Cr. No Cv cognates are available for the other two pairs, while Cv a matches the unstressed i of the final pair: (247) Cm qəlispál, Cr qəlispíləm, Cv qəlispíləm.

D. Two sets of forms with unexplained, irregular correspondences raise some interesting questions about their respective developments.

320. On pis	Cr pēste?	Cv p̄sas	<u>nighthawk</u>
328. snis	s-nōs	sn̄sas	<u>snot</u>

The Cv cognates and the Cr vowels point to proto forms with pharyngeals in them. These were lost in On leaving no trace; they were lost in Cr leaving the "darkened" vowels as trace; and were retained in Cv along with *a which developed irregularly to a. The explanation for the Cv retention of *a as a might be that both sn̄sas and p̄sas look as if they contained the suffix -us / -sas face (and they might have at one time), and like those forms that exhibit pharyngeal displacement, retained -sas.

4.3. *u. KS found the reflexes of *u to be (A) On u, Cr o before back consonants (4 etymologies), and (B) On u, Cr u regularly (69 etymologies). They list irregular, unexplained correspondences in (C). Sets (A) and (B) are complementary in the same way as sets (A) and (C) of the reflexes of *i. The Cv evidence confirms KS's reconstruction while it shows some peculiar developments in Cv. Regularly *u > Cv u, thus: (334) x̄x̄up win, (335) x̄x̄up weak, (336) lup dry, (337) mēlqūps eagle, (338) tūpēl spider, (339) tatūpa? great-grandparent/child, (341) pūm brown, (344) sum sniff, (347) x̄x̄nūt nine, (348) lut no, (350) x̄ut rock, (351) x̄ut badger, (355) mus feel, (356) mus four, (358) k̄us frisky, (361) ?a?usa egg, (362) pus cat, (364) stūscon marrow, (365) clūsēnt hail, (368) x̄us foam, (370) spu?us heart, (371) q̄uc̄ fat, (372) m̄uc̄ mare, (375) m̄ul dip, (376) sul freeze, (377) k̄uī lend, (379) stūica? mule deer, (380) pul gopher, (382) scūēm bull, (383) q̄uī dust, (384) suyāp̄ix white man, (385) puy wrinkled, (387) ?uk̄ bring, (389) suk̄ drift, (390) pux̄ blow, (391) sux̄ know, (393) scu?x̄an foot, (397) laputāy bottle, (398) -lup place, (399) -ups tail, (400) -us face, (401) -ūlax̄ ground.

A significant number of forms show Cv a corresponding to On u, Cr u (and o), as well as to On u, Cr a. Spokane⁵ cognates are added in an attempt to understand better the developments involved.

331. On pūlpulq̄en	Cr pōlpōlq̄en	Cv pālpālp̄q̄en	Sp	<u>thimbleberry</u>
332. nūx̄nux̄	nōx̄nōx̄	nāx̄nāx̄	nōx̄nōx̄	<u>wife</u>
342. tūm	tūm	tūm, tm̄sam		<u>suck</u>

battle from Fr. p. 65
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346. k̄uw	čuw	k̄aw		<u>gone</u>	
354. pu?pu?sānk	pēpusinč	pa?pa?sīnk	pupusēnc	<u>sad</u>	3C: Vw
363. mēūs	mātus	m̄t̄as	m̄tos	<u>kidney</u>	
381. mēcūt	mācūt	m̄c̄ait	m̄coit	<u>pus</u>	
388. yu?yu?k̄ūl	du?k̄	ya?yāk̄a?	ye?yūk̄e?	<u>stingy</u>	
395. cūw	cu?	ca?	cu?	<u>hit</u>	BC: Vw

The Sp(okan) evidence divides the examples of this set into two subsets, one characterized by the Sp reflex o, the other u. The two Cv items (363, 381) that contain a pharyngeal, although not analyzable synchronically, point to complex forms underlain by pharyngeal roots *m̄Vt̄ and *m̄Vc̄ respectively. The shifted pharyngeals are preserved in Cv, and the original vowels assimilated. The development of the Sp forms parallels that of Cv, with subsequent loss of pharyngeals and "darkening" of the vowels.

Two other sets of cognates,

402. On ?ucqa?	Cr ?ācq̄e?	Cv ?ācqa?	Sp ?ōcq̄e?	<u>go out</u>
403. cūȳx̄	?aȳx̄	cāȳx̄a?	cōȳx̄e?	<u>crawfish</u>

differ from the others just discussed in the Cr reflex a, and any hypothesis that explains the reflexes of two languages leaves the other two unaccounted for.

All Cv members of the subset of correspondences characterized by the Sp reflex u, have unexplained a. Two of these forms are reduplicated, complex forms (354, 388), and a third one (395) exists alongside the synonymous ci?, suggesting that the Cv root has been reformed, as if it were an ablaut pair.

In addition we must note the peculiar incongruence between the rounded consonants and their plain counterparts (Cr unrounded x̄, On rounded x̄^u in 332) opposite the case of (33) On sx̄at̄x̄at (unrounded x̄) Cr x̄^uat̄x̄at (rounded x̄^u), duck.

Several other items need individual comments.

405. On scūm̄cūm̄	Cr scōm̄cōm̄it	Cv sc̄ānc̄m̄	Sp sc̄cūym̄t	<u>boil</u>	little principle
407. pu?s	pōs	pa?s (p̄us ?)	(p̄us)	<u>thought</u>	sc̄ōm̄c̄m̄ = carmole
408. spuct	spōct	spuct	spōct	<u>sore</u>	
410. huy	hōy	huy [hoy]	hoy	<u>finish</u>	

Sp 405 is irregular, while the other three languages show reflexes which parallel the development exemplified in 363, 381; Cv (407) s-pu'us is almost certainly related to pa'pa'sink (cf 354, similarly Sp 407), and bespeaks the difficulty of comparing complex forms in related languages without a reconstruction of the derivational processes of each language; Cr 408 must be an irregular development which shows no trace of the factors that might have conditioned the Cr and Sp reflexes; similarly Cv 410. However, I must add that Cv [hoy] is pronounced with a singularly low vowel, which I have considered a variant of u in this form. The form in isolation is used as an interjection, with high frequency of occurrence, but also undergoes regular inflection and derivation in (usually) transitive constructions. [hoy] exists alongside x'uy, from which I distinguish best by noticing the rounding of the initial consonant in x'uy and its conspicuous absence in [hoy].

4.4. *a₁. KS found the reflexes of *a₁ to be (A) Cm i, Cr e; (B) Cm ə, Cr a; (C) Cm u, Cr a, (D) Cm u, Cr e; (E) Cm a, Cr a; and regularly (F) Cm ə, Cr e. Irregular correspondences are discussed in (G).

A. Cm i, Cr . Three of the 13 pairs in this group are disyllabic with initial stress. Two Cv forms have shifted the stress to the final syllable and have lost the reflex of *a: (416) ʔi? canoe, (418) stʔi? grass; the third, (424) sipi? skin has retained initial stress and unstressed i corresponding to Cm i, Cr e. These correspondences parallel (320) Cm pis, Cr pēste? nighthawk, and (321) Cm swa?nik, Cr sx'ū?neč thornberry, and here again, I think it's the unclear morphology of these items that precludes a firm understanding of the origin of the vowels. Of the remaining etymologies 6 lack Cv cognates; a pharyngeal has inexplicably intruded in (415) q'ay black; two forms have i: (421) miy know, and (425) wi? finish; and the last a: (426) qay write. Cv wi? occurs mostly in compounds, for example wi?-s-māya?-it-s-on I'm done showing you, kən wi?-s-tax'-iq-əm I'm done harvesting, rarely in complex forms like wi?-cīn finish eating (with lexical suffix), more rarely in simple transitive forms like wi?-st-īp you finish it, but not in simple intransitive forms (unless way, as in k-s-way-a?x he's going to finish is the a-grade of the same root).

miy (strong root) exists alongside my (weak root): c-miy-st-s (c-miy-st-is) he's sure of it, c-mi-st-ís (c-miy-st-is) he knows it.

B. Cm ə, Cr a, (Cv a). Of the 28 examples listed here, 21 represent reflexes of *a₁ before back consonant. Available Cv cognates corroborate KS's reconstructions: (429) kar cut, (430) kar swim, (435) yark' curved, (437) tarq kick, (439) taq lie, (440) caq set, (445) taq' slap, (453) ʔax fast, (454) paq smart, (460) caq' instruct, (468) -alqs point, (436) x'rap shake, (463) ɬ'pa escape (the last two with metathesis). Other Cv roots that belong with this group are weak and have not been recorded stressed, leaving the vowels unattested. In addition, still in this group, three items, disyllabic in Cm and Cr, are monosyllabic in Cv (the Cv reflex of the vowel in question has been lost): (432) Cm čeris, Cr čalus, Cv čris kingfisher, (433) meryām, marim, mrim doctor; 448. sq'osq'ōsa?, s-q'ās-q'ese?, sq'si?. Seven other pairs have Cm ə, Cr a, for "indeterminate reasons." As KS suggest, every available Cv cognate is a pharyngeal root, thus seemingly explaining these reflexes: (469) ʔap shoot, (470) x'ap gnaw, (473) sp'ac squirt, (474) s'an gentle, (475) m'al (also m'al) warm. Note, however, that the pharyngeal is pre-vocalic, and these purported developments of *a would not parallel those of *a. Schematically,

*a	Cm ə	Cr a	Cv ʔa
*sa	(ʔ)a	i	ʔi
*aʔ	a(ʔ)	a	aʔ

C,D. Cm u, Cr a / e. A total of 8 examples comprise these two sets. Although some labial or labialized consonants is in each of these forms, the correspondences are not systematic, and the available Cv evidence is insufficient to clarify the relationships that hold between these pairs:

(478) m'q'aq' pile, (482) x'uk' clean.

E. Cm a, Cr a. The Cv root that corresponds to the single etymology of this category exhibits ablaut, (484) piq, paq white.

F. Cm ə, Cr e. This set exemplifies the regular reflexes of *a₁. Of the 63 Cv cognates available, a few have never been found stressed, hence their vowel is unattested: the large majority indicate that *a₁ regularly became Cv a, and others point to special developments of several

types. The Cv forms with the (unstressed) \circ / \emptyset reflex of KS's reconstructed $*\circ_1$ are: (488) $\dot{k}\circ m$ surface, (505) $x\dot{i}$ surround, (506) $\dot{k}\dot{a}t$ cut, (509) $q\dot{s}$ scratch, (525) $x\dot{o}h$ lie, (528) $x\dot{o}l$ bridge, (531) $s\dot{o}l$ -p turn, (568) $\dot{n}k^w$ one, $*\circ_1 \rightarrow$ Cv a in the following: (492) $\dot{s}amap$ melt, (498) wap thick growth, (499) cam small, (500) $ka^w m$ take, (504) $x\dot{a}$ care, (507) $\dot{c}sa$ finish, (508) $\dot{k}ast$ bad, (510) $q\dot{s}api$ long time, (511) $x\dot{a}st$ good, (514) $x\dot{a}$ bet, (516) $packi$ leaf, (517) $\dot{i}ac$?, (529) $\dot{c}al$ stand, (532) $x\dot{l}ak$ turn, (533) $x^w al$ live, (539) $\dot{t}la$ break, (540) $\dot{p}lak$ turn, (543) $k^w al$ warm, (546) $\dot{p}la$ thick, (547) $\dot{t}ai$ straight, (548) $\dot{s}talom$ boat, (557) $\dot{l}ak$ tie, (559) $\dot{t}ax$ sweet, (560) $kxan$ (?) follow, (566) $lk^w a$ far, (572) $\dot{i}ax^w$ (?) hole, (573) $\dot{i}ax^w$ sew, (574) $\dot{k}ax^w$ kill.

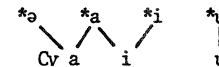
Finally, several comments need to be made about the remaining Cv cognates: five of these exist in pairs with i - a ablaut; 6 exhibit i; 3 others u; and the rest are not directly comparable. The ablaut pairs do not shed light on the development of $*\circ_1$, but of course need to be studied in Cv. Metathesis of C_2 with V accompanies three of the a-grade forms (pointing to i \rightarrow a): (527) $milk^w$, $malk^w$ whole, (531) $\dot{s}lip$, $\dot{s}lap$ turn, (550) $x\dot{i}i$, $x\dot{i}a$ level, (551) $k^w i\dot{i}$, $k^w i\dot{a}$ take out, (570) $\dot{t}ix^w$, $\dot{t}ax^w$ obtain. The six forms with i do not necessarily indicate an irregular development of $*\circ_1$ in Cv, but more needs to be known about the stress properties of each and of its cognates: (485) $x^w ip$ spread, (487) xpi stitch, (497) $q^w ilom$ sing, (501) $\dot{k}im$ dark, (524) $pa^w pin$ fold, (542) $\dot{t}il$ tear. Three Cv forms have irregular u, before a rounded consonant in each case: (564) cuk^w pull, (567) $\dot{c}uk^w$ stiff, (569) pux^w blow (cf Cv 566, 572, 573, 574 where $*\circ_1 \rightarrow$ Cv a in a similar environment). The other available Cv cognates match unstressed \circ in Cm, which corresponds to \emptyset (or epenthetic \circ) in Cv: (494) $\dot{s}pilom$ bitterroot, (495) $xmin$ enemy, (496) $\dot{t}im$ easy, (502) $xwil$ road.

G. KS list 16 examples of irregular, unexplained correspondences. The available Cv cognates do not corroborate KS's hypothesis that these reflexes go back to $*\circ_1$: one is an ablaut pair, (577) $\dot{s}la$, $\dot{s}il$ turn; two have a, (575) $ta^w m$ clear, (578) $\dot{c}al$ cold; and four i: (576) $x^w it$ first, (579) $\dot{s}tkcx^w iip$ willowberry, (582) $li\dot{i}^w$ fit, (583) $x^w i\dot{s}ilx^w$ fox. Too many

Cv forms with i derive from proto-forms reconstructed by KS with $*\circ$, and this requires further study.

4.5. $*\circ_2$ (probably epenthetic). Cv rules of epenthesis given in 2 above will not shed any light on the rules of epenthesis of PEIS until similar synchronic rules have been formulated for the other languages of the interior. Consequently no discussion of Cv \circ is relevant in this context.

5. Conclusions. Evidence from Cv data explains irregular developments in Cm and/or Cr in all those cases where the original \dot{s} has been retained in Cv, but not in one or both of the other languages. Further internal evidence (in Cm and Cr) should explain what caused the retention or loss of the original pharyngeal. Otherwise the Cv evidence confirms KS's reconstructions except for the details pointed out in this paper. The sources of the Cv vowels are: a $*\circ$, $*a$; u $*u$; i $*a$, $*i$; best mapped as follows:



An approximate count of the frequency of IS vowels, perhaps of typological interest, is mapped thus:

	PEIS	Cm	Cr	Cv
a	42%	42%	18%	48%
e			34%	
i	14%	16%	32%	38%
e			2%	
u	14%	14%	14%	14%
\circ	30%	28%		

In Cv, and probably in the other IS languages, the most pressing need is for the internal reconstruction of the ablaut system. Of special interest in Cv is the metathesis characteristic of one item of the ablaut pair.

MDK: compared wrong vowel

Notes

¹Kinkade, M. Dale and Clarence Sloat. "Proto-Eastern Interior Salish Vowels." IJAL 38; 26-48, 1972. My paper is meant to be read with this article at hand.

²'Back' consonants are r, uvulars and pharyngeals.

³For a discussion of this phenomenon see my paper "Pharyngeal movement in Colville and related phenomena in the Interior languages." 11th ICSL, Seattle (UW preprint, pp. 148-66).

⁴Strong suffixes are stressed. See the immediately following paragraph in the text for further discussion of stress and morpheme weight.

⁵Spokan forms are taken from Barry F. Carlson's unpublished Spokan Dictionary.

Spokane -e- ¹

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0. Introduction

1. The Spokane Word

2. Repetitive Infixation -- Suffix Stressed Forms

3. Repetitive Infixation -- Root Stressed Forms

4. Conclusion

Appendix A -- Suffix Stressed Repetitive Forms

Appendix B -- Root Stressed Repetitive Forms