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TOWARDS A SALISH ETYMOLOGICAL DICTIONARY[1]

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1. INTRODUCTION

1.1 The substance of this paper consists of a list of 150 roots which are common to Squamish as a representative of Coast Salish, and Shuswap, Coeur d'Alene and/or Kalispel as representatives of Interior Salish. The Sq. material is supplemented with a few Halcomelem items, that of Kal. with a few items from Colville and Flathead. As the S.Georgia branch of the Coast Division and the Interior Division of Salish are not particularly close, the large majority of these roots may be assumed to go back to Proto-Salish. There are 35 items for which Sh. is the only IS source (vs. 7 and 8 for only CdA. and only Kal. repectively). This is at least in part due to the fact that the available Sh. material is more extensive than that of the other two IS languages. But it is possible that certain words are limited to a "northern" dialect-area.

1.2 The number of morphemes common to Sq. (Halc.) and Sh. CdA. Kal. (Colv. Fl.) is much larger than the 150 quoted. It comprises in the first place a number of affixes and clitics, not treated here. In the second place, many items are undoubtedly cognates but fail to present perfect sound-correspondences in the present state of our knowledge. In Sq. t'ək°s and Sh. t'əq°-p-, t'q°-up- 'explode' the difference k° - q° requires an explanation. In Sq. p'uλ'- 'to smoke (of fire)' and Sh. s-pʔut' 'fog, steam' s-pət'-úl'əx° 'fog rising from ground' Colv. spuʔúl' 'smoke' there is disagreement between the glottalic Sq. and the plain Colv. initial cons. (Sh. is ambiguous here, see 2.2); moreover, Colv. has an l' to be accounted for. Another type of case is found, e.g., in Sq. p'əyq'° 'rotten wood' and Sh. yəq'°- 'rotten' CdA, doq'° 'wood is rotten'; though these words have an element y(ə)q'° in common, the Sq. initial p'- is unexplained, and matters are further complicated by Cw. çáq'°əm 'rotten' (with another unexplained initial) and by Cw. pq°ayʔ 'rotten wood' (with

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1) Abbreviations: PS Proto-Salish, IS Interior Salish, Sq. Squamish, Halc. Halcomelem (with its dialects Cw. Cowichan, Ms. Musqueam and Chil. Chilliwack), Sh. Shuswap, CdA. Coeur d'Alene, Kal. Kalispel, Colv. Colville, Fl. Flathead. Transcription: λ lateral fric., λ' glott. lat. fric. or affric., ĝ voiced palatovelar fric., ğ voiced uvular fric., e o open [illegible] e o close [illegible] a: [illegible] long a

plain instead of glottalic conss.). Our etymologies are limited to root--morphemes with perfect cons.-correspondences (barring minor deviations in one lge as against the other(s) of the same Division.

1.3 The roots are quoted in reconstructed PS form. This reconstruction presupposes a comparative phonology. The cons.-correspondences between the lges we are concerned with are on the whole perfectly clear (see section 2). The existence of quantitative and qualitative ablaut in Salish, the fact that the color of vowels can be affected by other sounds, and the difficulties in recording reported on by most investigators -- all these factors make the reconstruction of the PS vowels more difficult than that of the consonants, cf. the rather chaotic exposition of the facts in Reichard 1959:246ff. For purposes of comparison the consonants were therefore in first analysis taken as sole criteria. Only after the etymologies were established were the vowel-correspondences analysed; arriving at a better understanding of the latter was one of the purposes of assembling the etymological material. The vowel-correspondences are set forth in section 3. Section 4 deals with stress, 5 with alternations. Section 6 contains the list of PS roots.

2 - 5 COMPARATIVE PHONOLOGY

2. Consonants.

2.1 The PS consonants, in the alphabetic order used below, are the following: p p' m t t' c c' s n λ λ' l r k k' k° k'° x x° ĝ q q' q° q'° x̌ x̌° ǧ h w y ? (the latter disregarded for alphabetic purposes, as are the vowels). In the individual languages the sonants m n l r h w y also occur glottalized (m̓, etc.; non-initial ? is glottalized h); the same is true of ĝ ǧ ǧ°, sounds which structurally constitute a class apart (in this respect they are reminiscent of the I.-Eur. laryngeals). In reconstructions this glottalization is written only when Sq. and the majority of IS have it.

2.2 The PS consonants have remained identical in Sq. Sh. CdA. Kal. except for λ' k k' x w y l r ĝ ǧ ǧ° (see below). Sh. regularly deglottalizes the first of two consecutive glottalic obstruents, i.e. *K'VK' > KVK' (K = obstr.), see nos. 5, 6. 25, 93, 94, 95, 105. In the one available example (no. 7) *K'RK'> Sh. KRK' (R = sonant).

2.3 λ', preserved in Sq. Kal.,> t' in Sh. CdA. (the Sh. phoneme t' varies freely between [t'] and [λ'] and is reduplicated by t, reduplications following the deglottalization rule of 2.2).

2.4 k k' x) č č' š in Sq. CdA. Kal.

2.6 l r are distinguished only in CdA. (and Colv.); elsewhere they have merged into l. In Sq., l (< *l and *r) > y in two thirds of the cases (Sq. being a mixture of "l-" and "y-dialects").

2.7 ĝ (phonetically related to y in the same way as, e.g., Dutch v to labiodental w) is found in Sh. only; in the other interior languages it has merged with y, cf. Sh. semĝéw̓/səĝéw̓ 'lynx' CdA. smɬyíw 'coyote' Fl. sk°lisəmiyé 'cougar; any big cat'; Sh. ĝi? Kal. ye 'this'; Sh. s-cəĝép Colv. ciíp 'tree'. No Sq. cognates involving *ĝ were found so far.

2.8 ğ ğ° are found in Sh. and CdA. Sh. ğ corresponds in root-initial position to CdA. ğ (Kal. a), cf. Sh. ğec- CdA. ğec (Kal. *aác) 'to tie', Sh. ğiw- 'pile up' CdA. ğig° 'throw pl. objects', Sh. ğay-p- CdA. ğey̓ 'be angry'. No cognates with root-final ğ were found so far, but cf. Sh. p?əğ-ép 'burnt-over terrain' Kal. p'aáp 'fire (not made by man)', from a V̄pəğ- 'faded, empty', where Kal. has its usual counterpart a of CdA. ğ. For Sq. see no. 140.

2.9 Sh. ğ° corresponds in root-initial position to CdA. ğ° if Sh. ğ°uy- 'withered, tired' and CdA. ğuy 'waste, be extravagant' are cognates, cf., from the same root, Sh. x̌-ğ°ey-ğ°úy̓-nk 'roar with laughter (so that one's insides -nk get weak)' and possibly Kal. oy̓incút 'to laugh (only sing.)'. For root-final position no certain cognates were found. Sh. cəğ°- 'make furrows' can be compared to CdA. cağ° Kal. *co 'fringe'. In the root 'to break' Sh. has unstressed q'əğ°- and stressed q'iw-, cf. CdA. q'ew Kal. q'a?ú; this root could be compared to Sq. q'°uy (Cw. q'ay) 'to die' with its derivatives q'°úy-ut 'vanquish', q'°úy-nəx° 'have killed (game)', possibly paralleled by Sh. téğ°-en 'turn loose (horses)' Sq. tuy-n 'leave, abandon', cf. further CdA. tewš Sq. tuy 'go across', of which no Sh. cognate is available. These comparisons are not included in our list because of formal and semantic uncertainties; the PS phoneme ğ°, like ĝ, does not figure in our list of PS roots.

3. Vowels.

3.1 The Sq. vowels are a u i ə, the latter occuring as a reduced or vocalized zero grade of any full vowel. Phonetic long vowels ⌈a: o: e:⌋ represent əh uh ih respectively, cf. the proportion séq' : sq'-im? ≃ c'éh ⌈c'a:⌋ : c'(ə)h-ím? ⌈c'ehém?⌋, involving the roots səq' 'split' and c'əh 'hit' and their act.-itr. derivatives in -ím?. Im many forms, əh uh ih appear shortened to a u i. The sequences əw əy are etymologically related to the vowels u i, so that the latter are ambiguous (either < *u *i or < *uh *ih or < *əw *əy). In the same way, u? i? may represent *u? *i? (structurally = uh' ih') or *əw̓ *əy̓.

3.2 The Sh. vowels are a e u i ə. The vowel a is rare otherwise than be-

material a occurs only once in another position (no. 123); it certainly does not continue a separate PS vowel, and Sh. e is the regular counterpart of Sq. a. On the other hand, it is not always easy to distinguish e and ə. Therefore, Sh. e is not used as independent evidence for PS *a; it is counted as supporting evidence, however, where the other languages point to *a. The exact phonemic status of a few occurrences of o (not represented in our present material) and of long e: (nos. 2, 32, 98) remains to be determined. Long e: is in free variation with a before w (e.g. sne:wt, snawt 'wind', also snewt); otherwise than before uvulars it continues *a. A long ə: occurs in only one word (no. 8), before l < *r, and continues *ə.

3.3 The CdA. vowels are a e u o i ə. The vowel o is in many cases a variant of u or e; it does not continue a separate PS vowel. The vowel e represents the reduced grade of u and i and also continues an original *i before uvulars. These two points will be briefly demonstrated.

3.3.1 That CdA. e (= Reichard's ĕ) represents a reduced (or vocalized zero) grade is clear from the near-absence of ə under the stress in roots, combined with the fact that e occurs as an alternant of any other vowel, e.g., λit', λet' 'jump' (cf. the zero grade in Kal. λt'-əp), xul 'bore hole', x°el' 'set to spinning' (Sh. x°əl, x°l-ep 'spin around'), t'iš 'be sweetened', t'eš 'be sweet' (where Kal. t'iš points to full grade *i), sil, sel 'turn' (where Kal. selp 'somersault' points to full grade *a); cf. further the root 'pull' (no. 31) which is found everywhere in zero grade only and in CdA. has the form cek°.

3.3.2 That CdA. e continues *i before uvulars is clear from the absence of i before uvulars in CdA. roots, combined with the fact that e appears in this position where the other languages have i, e.g. CdA. peq 'white' (Sh. Kal. piq), ceq° 'bright pink' (Sh.ciq°), c'el 'one stands' (Kal. c'il). The correspondences discussed in Reichard 1938:568 are perfectly regular: Kal. paq 'get white' = CdA. paq 'be made white', and Kal. piq = CdA. peq 'white'.

3.4 The Kal. (stressed) vowels are a e u o i ə. Colv. adds æ (variant of e ?). Kal. é corresponds to Colv. í or, in a minority of cases, to é, æ. In the three available examples, Kal. ó corresponds to Colv. á (see Vogt 1940:11f). The Kal. long vowels are all secondary.

3.5 With minor exceptions to be discussed below, the vocalic material contained in the 150 etymologies fits into the following system of correspondences (see chart p. 5; the examples of each correspondences are tabulated below). Notice that the Sh. CdA. Kal. correspondences e-a-a and e-i-e are in complementary distribution. For each vowel first those cases are given where all four lges are represented, thereafter those were positive evidence from one IS lge is lacking, etc., the cases where there is

Vowel-correspondences.

PS.	Sq.	Sh.	CdA.	Kal.
*i	i	i	e bef. uvular i elsewhere	e bef. *r i elsewhere
*u	u	u	u, o	o bef. *r, C+uvul. u elsewhere
*a	a	e	a bef. *r, uvul. i elsewhere	a(;) bef. *r a bef. uvul. e elsewhere
*ə	ə	ə	ə	ə

*i 30, 53, 69, 79, 139, 142 (Sq. and all IS lges); 29, 33, 35, 42, 47, 59, 136 (Sq. and two IS lges); 3, 18, 40, 44, 70, 72[b], 81, 95, 100, 102, 135, 144, 146 (Sq. and one IS lge); 28, 56, 93, 112, 115 (Sq. only); 23, 27, 37, 64, 66, 86 (IS only). Total 37 cases.

*u 13, 36, 45, 48, 132, 140 (Sq. and all IS lges); 12, 73, 74, 75, 104, 118, 119, 131, 134 (Sq. and two IS lges); 41, 72[a], 84, 86[b], 103, 143 (Sq. and one IS lge); 87, 113 (Sq. only); 52, 145 (IS only). Total 25 cases.

*a Not before uvular or *r: 17, 62, 77, 105, 126, 133, 148 (Sq. and all IS lges); 5, 46, 51, 65, 85, 89[b], 101, 124, 125, 141, 149 (Sq. and two IS lges); 7[b], 15[b], 32[b], 47[b], 78, 90, 91, 97, 114, 120, 138[a] (Sq. and one IS lge); 10[a], 19, 54, 71, 94 (Sq. only); 4, 21, 46, 67, 80, 88 (IS only). Before uvular or *r: 20, 22 (Sq. and more than one IS lge); 10[b], 25, 96[b], 129, 150 (Sq. and one IS lge); 138[b] (Sq. only); 9, 32[a], 43, 57, 108, 123[b] (IS only). Total 54 cases.

*ə Roots recoded in reduced or zero grade only (NB: in Sq., əh əw əy often appear as a u i): 11, 24, 31, 60, 61, 63, 82, 96[a], 106, 107[a], 109, 114, 116, 117, 121, 127, 130. Total 17 cases. In addition, of course, many roots with full vowel were recorded with reduced or zero alternants besides them.

listed it is of course understood that there are no contradicting indications, e.g. "Sq. and two IS lges" means that the third has reduced or zero grade vowel, or that no cognate is known from it. Where reconstructed items contain more than one vowel, or where roots and derivatives are listed under the same heading, the successive vowels are referred to as V^a, V^b. -- Reduplications $C_1i\text{-}C_1C_2$, $C_1C_2\text{-}uC_2$ are regarded as a degree of evidence for roots C_1iC_2, C_1uC_2.

3.6 Unlike Sq., the interior lges have expanded the inherited vowel system: *a has shifted to e (in part retaining back variants before uvulars and *r), and a new a has been created. This new a is infrequent in Sh., more common in CdA. and Kal., which have also added a phoneme o. For Kal. at least one of the ways in which a e o could become separate phonemes is clear: *al *il *ul became el il ul, cf. 46 selp, 65 kelx, 141 ʔesél, 30 cil, 81 sk'°il, 13 mul, whereas *ar *ir *ur became a(:)l el ol, cf. 20 ta:l, 76 k°a:líʔ, 122 yal, (c'al 'hurt' CdA. c'ar), 122 yel, (c'ol 'salt, sour' CdA. c'or). Thus there arose a five-vowel opposition a(:)l el il ol ul in which the length of a is redundant (and 122 yal may represent a step towards the obvious simplification). Of course, the various vowels have also other sources, both independent (as in Kal. co CdA. cağ° 'fringe') and in the form of identification of open variants of e i u with the newly created a e o.

In CdA. the original *a shifted to i before neutral cons., while *ə was opened and fronted to e. The origin of a o as independent units remains to be determined. As CdA. preserves r and ğ° the above remarks do not apply here. For a it is probable that *h is one of the sources (cf. the Sq. alternation of əh and a). Certain is that, once arisen, the new phonemes spread to words in which they did not originally belong. This spread was undoubtedly facilitated by the existence of ablaut, which could easily give rise to analogical forms.

3.7 Among the cases not summed up in 3.5 there are first of all a number which point to a PS qualitative ablaut i/a and u/a. This type of ablaut is found sporadically in the separate languages, e.g. Sq. λič'-tn 'knife' and λač' 'cut', ʔuy- 'enter' and ʔay- 'inside' (in Sq. the i-grade has besides the morphological function of characterizing diminutives); the same vowel-differences are also found between the IS lges, e.g., Sh. liq' vs. Kal. laq' 'bury' (CdA. leq' probably represents *i but can also be reduced grade). The cases contained in our material -- either within one of the lges, or between lges, or both -- are the following (vowels in PS form):

	Ablaut i/a					Ablaut u/a			
	Sq.	Sh.	CdA.	Kal.		Sq.	Sh.	CdA.	Kal.
34.	a	i	i	---	20.	a	a	u/a	a
49.	a	i	a	a	39.	u	a	a	a
50.	i	a	a	a	58.	u/a	a	u/a	u
111.	i/a	(ə)	(ə)	(ə)	76.	u	a	a	a
122.	i	i	i/a	i/a	83.	a	u	(ə)	a
128.	i	i	a	---	137.	u/a	---	a	u

Two more cases involve ablaut but present difficulties in the details: 3.7.1 In no. 2 Sq. pλ-uλ Sh. pλ-e:λ-t CdA. peλ Kal. pλiλt (Colv. pλeλt) 'thick' the Sq. and Sh. forms point to ablaut u/a but Kal. i is unexplained. The relation Kal. i -- Colv. e is the exact opposite of the regular one (see 3.4); it recurs in Kal. stíλəm Colv. stéλəm (CdA. stéλəm) 'boat', again before λ. We find the regular IS reflexes of *a in Sh. qe:ck CdA. qičč Kal. qečč 'elder brother', where Colv. has qeck, with e as in pλeλt. The IS forms of the latter word probably go back to *pλaλt, the Kal. cognate constituting an exception which remains to be explained.
3.7.2 No. 38 Cw. s-ç'am? (< *sc'um? or, less probably, *sc'am?) Sh. s-c'em CdA. s-c'a'm Kal. sc'o'm Colv. sc'i'm 'bone' (Sh. 'fishbone') shows parallel irregular occurrences of a and o in CdA. and Kal. respectively. Colv. i can continue *i or *a (for the latter cf. Colv. xəmí'n < *xman 83, kilx < *kalx 65). In our case it obviously represents *a. Here again ablaut u/a is apparent, but the representatives of these vowels in CdA. (a inst. of i) and Kal. (o inst. of u) remain to be explained.

3.8 The remaining deviations from the strictly regular pattern are the following:
3.8.1 In two words of our list (16, 147) Kal. has a before u, w, opposed to e in the same position. This may be an intrusion of an a which had previously become phonemic, but it may also represent one of the ways in which a became phonemic. The regular Kal. reflexes of *aw *aw? are eu e?u (see nos. 50, 67, 81, 89, 107, 148). Since in no. 16 Sq. points to *muh it is possible that old threeconsonantal roots *Cəwh constitute one of the sources of Kal. a (say, as a result of inversion to *Cəhw, cf. 63). But the evidence is insufficient. Three other cases of Kal. a(?)u have correlates with ğ° in CdA. (Reichard 1958:298), suggesting another possible source (but cf. CdA. q°eğ° Kal. q°eu(u) 'foolish' with a different reflex). That the Kal. a in these cases may be incidental or secondary appears from similar irregular a's in CdA. , cf. c'a'w 'wash' tag° 'buy' (Kal. c'e?u teu Sh. c'ew- tew-). In 43 CdA. c'a'wq the a may be due to the neighboring uvular but can also be a reflex of *h.
3.8.2 Kal. has a after a uvular in 32[b] cqal, 89 sqalé?u, 92 q'am, 110 q'°ay. The term "deviation" does not really apply here as "regular" e is

but little more frequent in this position: 88 sqe?em, 98 q'ei, 101 q°el, 105 q'°ec' (in 111 ǩemt e is probably an incidental opening of *ə, in 117 ǩe?n it goes back to *əy? or *i?).

3.8.3 For 6 CdA. p'ac' Kal. p'ac, 12 CdA. mác'uλt and 123 Sh. yaq°- see comments under the respective headings.

3.8.4 Kal. has o instead of u in 58 λoq'° and 121 hoy (CdA. λoq, hoy); other isolated instances of o in 15 səmóq'°e?, 43 c'o?q (CdA. c'aẃq), 108 q'oǩ (< *q'°aǩ), 150 c'o?iǩé? (where o may be due to the prefix).

4. S t r e s s.

Vogt 1940b:14 points out that the stress in CdA. is often on a syllable closer to the beginning of the word than in Kal. In this respect Sh. goes together with Kal., cf. nos. 51, 83, 85, 124, 141. In these cases Sq. (141 Halc.) goes together with Sh. Kal. These cases have in common that CdA. has the stress on a first syllable which in the other lges has ə or zero (Kal. -uw-, -uẃ- in 85, 124 represents -əw-, -əẃ-). In cases where the first syllable has a full vowel the relation of Sh., Kal. to CdA. is the same as above, cf. Sh. keλés Kal. če?λés but CdA. čí?λes 'three'; Sh. ǩəléx° Kal. ǩaléx° but CdA. ǩálex° 'tooth'. In the one available example of this second type (12) Sq. goes together with CdA., cf. also 10, where Sq. has the stress on the first versus Kal. on the second syllable. However, in 100, 102, 118 Sq. has the stress on a first syll. with ə as opposed to Sh. (no CdA. Kal. cognates). It is possible that the difference between the latter cases and those mentioned at the beginning of this section (51, etc.) results from the morphological status of the first cons. in terms of root-cons. versus prefix, Sq. having initial stress on root-elements (including reduplication-syllables C_1V-) but not in cases like 124 *s-wat (this would imply that *n- in 51, *x- in 83, 85 and *?ə- in 141 are prefixes). -- A case like 124 CdA. ségºet < *s-wat is a strong indication that the initial stress represents the innovation; this could perhaps explain some cases of Sq. CV́CVC where CVCC would be expected (10, 138).

5. A l t e r n a t i o n s.

5.0 The following alternations, found as regular grammatical procedures, as petrified remnants or as occasional features in the individual languages, must be taken into account in establishing groups of cognates (R = sonant, A = full vowel):

5.1 Alternation CAC -- CəC or CC. The alternation is probably a result of reduction of unstressed forms, the choice between CəC and CC originally being automatic. Later shifts in stress gave rise to new occurrences

of CəC, resulting in a phonemic status of ə, although with a low functional yield. Clusters in zero-forms show a tendency to deglottalization (regularized in Kal., see Vogt 1940a:18, section 32). This tendency led to irregularities in the case of units which lack a full grade, see nos. 31, 60, 77.

5.2 Alternation of i or u with a, see 3.7. This alternation probably did not play a grammatical role in PS, for the number of old cases is comparatively small. For a possible explanation of the origin of this ablaut see comments under nos. 4 and 6.

5.3 Alternation CVCC -- CCVC in expanded (threeconsonantal) roots, reminiscent of the "states I and II" of the theme in I.-Eur. See nos. 1, 7, 10, 96, 113, 121, 122, 123, 134, 138.

5.4 Alternation of plain and glottalized sonants and vowels. This subject cannot be discussed at length here; we mention only the alternation CAC -- CA?C or C?AC (in individual lges also CA?AC), see nos. 47, 66, 69, 78, 88, 90, 99, 131, 140, 141; the Sq. case in 14 probably stands apart. It is worth noting that in roots extended with the formative *-a? (15, 40, 47, 66, 139, 140, 141, in individual lges also 28, 69, 86, 131, 137, 150) the following relation holds: if the root has medial glottalization, either the ? of the formative or the whole formative is absent, e.g., 47 Sq. sf?l, sf?la versus CdA. Kal. síle?. -- The parallelism between full vowels and sonants as regards glottalization suggests that a u i were originally identical with h w y.

5.5 Coexistence of roots C_1VC_2 and C_2VC_1 and of $C_1C_2C_3$ and $C_1C_3C_2$ or $C_3C_2C_1$ (inversion). See nos. 14 and 92, 29 and 135, 96 and 116, 63, 70, also 37, 38.

6. ETYMOLOGIES

In the list which follows, first the reconstructed PS root is given, with its meaning (semantic shifts in individual lges are added in parentheses). Thereafter the recorded Sq. (Halc.) form is given, separated by a dash from the IS forms, which are quoted in the order Sh. CdA. Kal. (Fl. Colv.). -- Halc., Fl. and Colv. forms are quoted only when necessary. For Sq. and Sh. roots are quoted as such if the root is well-established, i.e., is found in several derivatives. A hyphen after a root means that it is found in derivatives only. Reduced and zero grades besides full grades are quoted for the individual languages, but for PS only the full grade is given, except if no full grade is known or if there is not enough evidence for determining the PS full vowel, in which case ə is written. -- Meanings are quoted simply as 'break', 'pull', etc., often as abbreviations of more exact 'be broken', 'be pulled', etc.

Where the meaning of an individual lge-item is identical with that given outside parentheses for PS, it is not repeated after the item in question. Doubtful cognates are indicated by "Cf?".

1. p i t x̌°, p t i/a x̌°, p ə x̌° to spit. Sq. pəx̌°. -- Sh. ptix̌°- CdA. təpex̌°; s-tépax̌° 'saliva', Kal. pitáx̌°, pitx̌°- (Fl. ptax̌$^{\phi}$- with delabialized x̌). The existence of forms with and without t is not surprising in this sound- and act-imitative word, cf. Lat. spuō, etc., without vs. Arm. t'k'-anem and perhaps Gr. πτύω with *t. The item was not quoted in 3.7 as evidence for ablaut i/a because Sh. ptix̌°- may be due to metathesis.

2. p ə λ, p λ-u/a λ thick. Sq. pəλ-. pλ-uλ. -- Sh. pλ-e:λ-t CdA. peλ Kal. pλiλt (Colv. pλeλt). See 3.8.

3. p i λ scatter, smudge. Sq. piλ 'be smudged' piλ-án? 'scatter (ordered things), erase tr.' -- CdA. piλ 'be scattered'.

4. p a w h, p u h blow (pant, breathe) swell. Sq. puh-, pəh-. -- Sh. pux°-, pəx°- CdA. pig° 'swell' pu?us 'swell, bubble, ferment' pux°, pex° 'blow' Kal. péu 'breathe, pant' pe?ex° 'swell'. The orig. zero-form of the threecons. root has been reinterpreted as a full grade twocons. root with u, to which a new reduced grade has been created (cf. no. 6, 16). IS final x° can be compared to the suffix in nos. 64, 70, but may also be a special development of *-wh. Like no. 1, this item is sound- and act-imitative and may present special phonetic features.

5. p'a c' hemp, string (fix with string, sew). Sq. p'ac'- 'to sew' p'ác'-i?n 'repair a net'. -- Sh. s-péc'ən 'Indian hemp, twine, string' Kal. sp'ec'ən 'Indian hemp, hemp rope'.

6. p'i h, p'i ?; p'i-c' squeeze, press (grab, push). Sq. p'î?-, p'əh-, p'a?- 'grab' p'ic' 'squeeze'. -- Sh. p'e$\acute{}$mx°- 'to milk' pic'- 'squeeze' CdA. p'iy$\acute{}$ 'squeeze' p'i? 'crush by pressing' p'ey$\acute{}$ 'press, milk' p'e? 'squeeze' p'ic' 'push' p'ac' 'squirt, defecate' Kal. p'e? 'to press, milk' p'ac 'push' (-c deviates). The item is interesting because it provides a possible explanation for the origin of the qualitative ablaut. The Sq. forms point to a root p'ih with reduced grade p'əh and their glottalized counterparts p'i?, p'a?. The latter suffice to account for CdA. p'i?, p'e? Kal. p'e? (even though different views are possible as to the exact status the CdA. forms because of the possibility of analogic readjustments; for Kal. cf. no. 117). The CdA. forms ending in y$\acute{}$ suggest that the i in V̄p'ih goes back to y, so that we have to start from a threeconsonantal V̄p'əyh (with glottalization of the final sonant: p'əy?; the interpretation of the grades p'iy$\acute{}$ and p'ey$\acute{}$ causes the same difficulties as that of p'i?, p'e? above). The zero form *p'əyh was reinterpreted

as a full grade p'ih (glott. p'i?) to which a reduced grade p'əh (p'a?) was added, exactly as in no. 4. Derived themes were bases on this secondary pair. It is impossible to say whether the formative was orig. *-c'or *-c as the glottalization in a form like p'ic' may result from *p'i?-c (see Kuipers 1967 section 45). One of the possible explanations of Kal. p'ac is therefore that it goes back to a combination of unglottalized *p'əh- with a suffix -c. The process resulted in an ablaut i/a.

7. p'ə l k', p'l a k' turn over. Sq. p'láč'-m (snəx°íλ) 'canoe with heart of cedar at bottom' lit. 'turnover (canoe)'. -- Sh. pəlk'-, plek' 'roll over' CdA. p'elč' 'turn flat things over' p'ilč' 'turn round objects' Kal. p'əlč' 'to turn'. The vowel in CdA. p'ilč' may go back to *i or to *a, or may be an innovation.

8. p'ə r overflow. Sq. p'i-p'i-ám (< *p'əy-). -- Sh. p'ə:l-t 'overflowing' CdA. p'er 'flood, be in excess, overflow'. CdA. p'er is a reduced grade (opposed to ir ar or see nos. 20, 76, 122); the unique vowel in Sh., recorded only in this word, undoubtedly represents the same grade, cf. nos. 20, 76 with full grade *ar.

9. p'a q' bright, white. Sq. p'əq' 'white'. -- Kal. p'aq' 'flash, shine brightly'. The interior lges have plain conss. in the word 'white': Sh. piq CdA. peq Kal. piq, cf. also 'become white' CdA. Kal. paq. The existence of a root *p'aq' in PS is somewhat doubtful as both Sq. and Kal. may have secondarily glottalized forms.

10. p'a y q, p'y a q ready, ripe, cooked. Sq. p'áyaq- 'fix, get ready, cure' s-p'áyaq-im? 'bread'. -- Kal. p'iyáq 'ripe, cooked'. The Sq. form with two vowels may be due to a later shift of the stress to the beginning of the word, cf. no. 138 and see section 4.

11. m ə c' cheat, lie. Sq. nəx°-məc'-(t)n'-álqp 'lie, falsehood'. -- Sh. məc'-ús-em 'to cheat'.

12. m a c'u λ pus. Sq. máč'uλ (Halc. irregularly méč'əλ with č' instead of regular č'). -- Sh. məc'úλt CdA. máč'uλt. CdA. a instead of expected i constitutes an irregularity; note the phonetic similarity of mac'- to 38 s-c'am which is likewise irregular.

13. m u l dip, sink, flood. Sq. muy 'submerge, flood over' məy 'sink'. -- Sh. mul 'dip' CdA. mul 'dip up' Kal. mul 'fetch water' məl 'to flood'.

14. m ə q' eat one's fill. Sq. məq'; s-m?iq' 'full from eating'. -- Sh. məq' Kal. mq'-enč (suff. 'stomach'). Possible inversion no. 92. There is not sufficient evidence for *i, as this vowel is attested only by a derivative in one language. The glottalization in Sq. sm?iq' is of the same type as in ?əsn?íw? besides niw?-, nəw? 'insert', see Kuipers 1967:56.

15. s-m ə q'°a ? crane. Sq. sméq'°á?. -- Kal. səmóq'°e?. Kal. o after labial and before labialized uvular cannot be opposed to any other vowel. It recurs in this position in moq'° 'mountain', p'oxút 'parent', the former possibly related to CdA. maq'° 'pl. objects lie, pile'.

16. m a w ? release. Sq. mu?-, ma?-. -- Kal. má?u, maw- 'burst, break off, break loose, take off'. The Sq. forms point to *muh, *məh (see comments under 4 and 6). See 3.8.1.

17. s-t a m what? Sq. s-tam, tam-. -- Sh. s-tém-i? CdA. s-tim Kal. stem.

18. t m i x° earth, land. Sq. tmix°. -- Sh. tmix°.

19. t a λ straight, stretch (fathom). Sq. taλ 'fathom'. -- CdA. teλ 'be straight' u:-teλ-t 'go directly'.

20. t u/a r extend. Sq. ta?l-m 'lengthwise, parallel'. -- Sh. tal- 'extended, stretched' CdA. tar 'untie' tor 'stretch out, extend (as hand)' Kal. ta:l 'untie, unwrap'.

21. t a k° perceive. Sq. tk°-áy?a?n 'hear' (suff. 'ear'). -- Sh. tek°x° 'smell proximity of animal or man' CdA. tik° 'suspect, smell out'.

22. t a q pin down. Sq. təq (cf? also taq- 'feel, sense'). -- Sh. tq- 'hold something on something' CdA. taq 'touch, cover with hand' (cf? Kal. taq 'wave the hand').

23. t'i m cut, chop. Sq. t'əm-. -- Sh. t'im CdA. t'em.

24. t'ə k prop up, support. Sq. t'č-ač 'walking staff' (suff. 'hand'). -- Sh. t'ək-.

25. t'a q' cross over, (in derivatives:) six. Sq. t'aq'-, t'əq'-; t'áq'-ač 'six' lit. 'across-hand'. -- Sh. təq'-m-ékst 'six' (cf? also teqt 'to land') Kal. t'áq'ən 'six' (cf., with a different root, CdA. tewše[čt] 'six' and tewš 'go across').

26. t'a q'° break. Sq. t'aq'°-, t'əq'°. -- CdA. t'aq'° 'egg or eye bursts'.

27. t'i x̌ open up, branch out. Sq. t'əx̌- -- (cf? Sh. t'ex̌-t 'tall (of person)') Kal. t'ix̌.

28. c i p λ eyebrow, eyelash. Sq. cipλ-tn 'eyelashes' (suff. 'implement'). -- Fl. cpλe? 'eyebrow'.

29. c i m small; children. Sq. ?əcím 'small'. -- Sh. s-cəm-e:lt 'children (of one family)' CdA. cɬ- cɬm 'be small, pl.', s-cɬ-cɬm-íl't--el't 'children in rel. to parents' Kal. *cim 'small, pl.' s-c-cəm-él't 'children'. Possible inversion no. 135.

30. c i l five. Sq. cí-ačis (< *cəy- or *ciy-). -- Sh. cil-kst CdA. cil(-čt) Kal. cil. See no. 113.

31. c ə k'°, c ə k° pull. Sq. cək°- (Cw. çək'°, cf? also Sq. ck'°--ácut 'run', lit. 'pull oneself'?). -- Sh. cək°- CdA. cek°- Kal. ck°-.

The coexistence of forms with k'° and k° is due to the fact that this root has no full grade forms: its conss. are in contact in all positions where ə does not automatically appear, and the tendency to deglottalization in clusters (cf. 60, 77, 95) is not counteracted by the separate conss. in full grade forms.

32. c a q be in position, stand (tree), c q-a l lie on back. Sq. s-cəq 'tree, log, stick, wood (material)' cqál-ačn 'lie on back' (suff. 'back'). -- Sh. s-ce:q 'to stand there, to stop' tək-ceq-mín 'wagon-rack' CdA. caq 'solid object stands upright' caq-caq-aq-əl-íp-ɛp 'he fell on his back' Kal. caq 'Fr. poser' cqal 'lie on back'. Semantically cf. Sh. cĝep 'stand upright' s-cĝep 'tree'.

33. c i q stab, dig. Sq. ciq- 'stab'. -- Sh. ciq- 'dig' Kal. ciq- 'dig'.

34. c i/a q° red (bleed). Sq. caq° 'bleed' (cf? also cəq°λ 'dark--brown lotion'). -- Sh. ciq° 'red' CdA. ceq° 'be bright pink'. Possibly an old derivative of *ciğ° 'to bleed' (Sh. cəĝ°-, ci?íğ°); cf? also Sq. s-cá-ci?n (Cw. sθéθiyən) 'blood'.

35. c i x̌° (*flow?), falls, river. Sq. s-cəx̌°-m 'falls' (cf? also cə-cíx̌° 'girl's puberty'). -- Sh. k'°əλ-cəx̌°-cíx̌° 'falls' CdA. hɬn-céx̌ut 'stream, river'.

36. c ə w, c u(-t, -n) point, show (behavior), say, order, think (intend), want, try. Sq. cu-t 'say, think; go through motions; try' cu-n 'tell, order'. -- Sh. cu-t 'intend, want' cu-n 'point, show, order' CdA. ceg° 'behave. have character' cun 'point, show' Kal. cu-t, cu-n 'say, tell' cut 'behavior'.

37. s-c'í p ə q skunk. Chill. s-ç'épəq (inverted and with a different suffix in Cw. Ms. s-pə-peç'ín; Halc. ç'= Sq. c'). -- Sh. sc'ípəq.

38. s-c'u/a m ? bone. Cw. sç'am? (Halc. ç'= Sq. c'). -- Sh. s-c'em 'fishbone' CdA. s-c'ám Kal. s-c'óm (Colv. sc'im). See section 3.7.2. A reduced form possibly in Sh. s-c'əm-qín 'brain' (suff. 'head'), inverted in Sq. s-məc'-ál-qn Cw. s-méç'-qən 'id.'. The orig. meaning of these words would then be 'headbone, skull'; semantically cf. Gr. κρᾶνίον Celt. kern 'cranium' vs. OHGerm. hirni 'brain'.

39. c'u/a λ cold. Sq. c'uλ-. -- Sh. c'eλ-t CdA. c'iλ 'weather is cool' Colv. c'eλt. The words Kal. c'alt Spokane c'érət 'cold' (Vogt 1940b:7 no. 151) do not belong here but are related to CdA. c'ar-t 'feel cold to the touch (stove, ice)', probably a derivative of CdA. c'ar 'be ill, hurt, ache', Sh. c'al 'hurt, throb'. This whole group can further be connected with Sh. c'al-t CdA. c'or Kal. c'ol Spok. c'ur Colv. c'ɛr 'salt, bitter, sour' < *c'u/ar (see Vogt ibid. no. 127 and p. 11 last paragraph).

40. c'i k°-a ? left side. Cw. sç'ík°a (Halc. ç'= Sq. c'). -- Sh. s-c'ək°ə?-éke? CdA. c'ik°-e?.

41. c'u q° suck. Sq. c'uq°-; s-n-c'q°u?-c-tn 'pipe' (suff. -c 'mouth', -tn 'implement'). -- Sh. c'q°ú?-ətn 'pipe' (suff. 'implement').

42. c'í x°-ə'ə x° osprey, fishhawk. Sq. c'íx°-c'əx°. -- Sh. cíx°--c'əx° CdA. c'ix°-c'əx° (Weisel quoted by Krueger 1961:9:47 Fl. stex'ux'u 'osprey', possibly s-c'ix°-əx°). The name of this bird is curiously widespread, cf. Kutenay c'o:c'o:.

43. c'a w ? pull out. Sq. c'u? 'come out (being pulled)', c'u?-n 'pull out'. -- CdA. c'aẃq 'pull out solid object (as nail out of board)' Kal. *c'o?q 'come off, break off' *cooq (sic) 'pull out'. Cf. no. 16. See section 3.8.1.

44. s i ? (maternal) uncle (and aunt). Sq. sí-si? 'uncle (parent's brother)'. -- Fl. si? 'maternal uncle or aunt while connecting relative is alive'. Cf. no. 47.

45. s u-m smell. Sq. sum?. -- Sh. sum (cf? sup'-m 'breathe') CdA. sum̓ Kal. sú?-um.

46. s a l turn, spin. Sq. səl- 'spin thread'. -- Sh. səlp- 'be active, eager' (semantically cf. Lat. versūtus 'sly, skillful' Russ. povorotlivyj 'lively, deft, skillful' also CdA. x°el' 'set to spinning' and x°el 'be alive, live') CdA. sil 'turn, cause diziness' silup 'spin of itself, set self spinning' sel 'turn, spin in eye, turn swiftly' Kal. selp 'somersault'. Cf. no. 84.

47. s i l(-a ?) grandparent. Sq. si?l; sí?la 'granny'. -- CdA. sile? 'mother's father' Kal. síle?. Possible l-extension of no. 44.

48. s u x° recognize (identify, understand, know). Sq. sux°t- 'identify'. -- Sh. sux° CdA. sux° Kal. sux° 'understand' (cf. suǔ° 'know, recognize').

49. s i/a q' split, crack. Sq. saq'-, səq'. -- Sh. siq' CdA. saq' Kal. saq'.

50. s i/a w attend, draw attention (ask). Sq. síw-i 'become attentive' sə-səw?-ít 'try to draw someone's attention'. -- Sh. sew- 'ask' CdA. sig° 'ask for' Kal. seu 'ask for information'.

51. n a k', n ə k'-u ? one, (in derivatives:) family; other, to change. Sq. nč'-u?, nač'- 'one, other' nč'-áy?uw?am 'family' nač'- 'change, differ'. -- Sh. nək'°-ú?, nək'°- 'one, other' nək'°-úsəm 'party, family' nek'- 'to change' CdA. nék'°-e? 'one' nik'° 'tribe' Kal. nk'u? 'one' sənk'°élix° 'guests, family(?)'. Before the palatalization of *k' the latter may have been automatically labialized before -u? in the lges of the interior, after which it shared the fate of *k'° and not that of *k'. The converse explanation (delabialization of an orig. *k'°) is more complicated for Salish, though the formal and semantic parallelism with Kutenay -ok'°(e:)- 'to be one' n?aó:k'°e: 'the one, the other' (n?- pref.

indicative of verbs with vocalic initial) is striking; cf. also Proto-Algonquian *n-ekot-wi 'one'. See no. 113.

52. λ u ʔ touch (poke, wound). Sq. λaʔ- 'touch'. -- Sh. λuʔ-, λeʔ- 'poke'. Kal. λuʔ 'string, wound'. The Sq. forms point to a root *λuh with glottalized h, see 4, 6, 16. The connection of the Sq. article λa with this root (Kuipers 1967:326 s.v. λ^1) is strengthened by the existence of a Kal. pronominal particle λuʔ (Vogt 1940:69f, particularly section 208).

53. λ i(-t, -n) sprinkle. Sq. λit-. -- Sh. λn-in- (reduplication) CdA. λil, λel 'sprinkle' λitʼ 'sprinkle ceremonially' Kal. λin.

54. λ a pʼ hang folded (like blanket on clothesline). Sq. λapʼ-, λəpʼ. -- Sh. λpʼ-.

55. λ kʼə m weasel. Cw. sλcʼem (Halc. cʼ = Sq. čʼ). -- (cf? CdA. s-čʼiḿ 'unidentified animal') Fl. λčʼiḿ 'brown weasel'. The element Cw. -em IS iḿ may well be a suffix; it is safest to leave the original vowel undecided.

56. λ i kʼº hook up, spike. Sq. λikʼº 'hook up, butt'. -- CdA. λekʼº 'pierce with fine-pointed object, fork, barb, spike'.

57. λ a qʼ stretch out, wide. Sq. λəqʼ- 'wide'. -- Sh. λeqʼ- 'stretch (a hide)' CdA. λaqʼ 'person lies on stomach, crouch' Kal. λaqʼ 'wide' λqʼ 'lie in bed, lie flat on the ground'.

58. λ u/a qʼº peel off, bald. Sq. λuqʼº, λaqʼº- 'peel off'. -- Sh. cə-x-λeqʼº-úʔs-qen 'bald' CdA. λaqʼº 'skin, peel off', λoqʼ 'bald, bare' Kal. λoqʼº 'bald'.

59. λʼi l stop, quit. Sq. λʼəy-, λʼi-, an l-form possibly in λʼl--λʼél-nəp 'home-settlement' (as opposed to temporary lodging e.g. when camping; suff. 'ground'). -- Sh. tʼil-, tʼl- Kal. λʼil 'still, motionless, dead' λʼl-ip 'to stop'.

60. λʼkº- impaired sense (deaf, blind). Sq. λʼkºéni 'deaf' (petrified suff. 'ear'). -- Sh. cə-x-tək-tkº-éne 'deaf' (t secondarily deglottalized in the cluster, cf. nos. 31, 77, 95) Kal. tʼk-us 'be blind' (suff. 'eye').

61. λʼə xº win, beat in game. Sq. λʼəxº. -- Sh. tʼxº- CdA. tʼəxºup Kal. λʼexºúp. Kal. unstressed e probably secondary, cf. no. 141.

62. k a(-n) do, do what? (be) where, how? Sq. ča(ʔ)- 'do, act, make' ča-s 'do what (with something)' ča-n-m 'do what? go where?' ʔəšánʔ (< *ʔəs-čá-nʔ) 'why?' -- Sh. ke-st- 'do what (w. something), put where', ké-n-eḿ 'be where' CdA. čɛ́n 'did .... after all?' Kal. čeń 'where, how' ʔesčén 'do what'.

63. k ə s ə w ʔ, k ə w ʔ s (inversion) spring-salmon. Sq. kºuʔs. -- Sh. kə-késəẃ.

64. k i n ? touch, hold (keep steady), Sq. čən?- 'hold, support, steady'. -- Sh. ?əs-t-kín 'touch' CdA. čeń 'take hold of large object' čeńx° 'hit person with slight touch' Kal. *cin 'to catch, grab' *čenx° 'to touch with the fingers'.

65. k a l x hand. Cw. céləš (Halc. cé = Sq. ča). -- Sh. kelx Kal. čelš.

66. k i x(-a ?) close elder female relative. Sq. čéša 'mother'. -- Sh. kix 'elder sister' kí?xe 'mother' Kal. λčíčše? 'elder sister (λ- + redupl. 'diminutive').

67. k a w extend, far (female relative through marriage). Sq. čuáš 'wife' (for -aš cf. č'maš 'bro. si. cous. -in-law'). -- Sh. kew- 'far' s-kəw-éxen 'wing' s-kew 'husband's sister, woman's brother's wife'. CdA. čig° 'go out onto prairie' čeg° 'extend' s-čəg°-áxən 'arm' Kal. čeu 'open space' ču?é?u 'they went far away' s-čuw-áxən 'arm' Fl. isčéu 'woman's brother's wife'.

68. k'a λ(u ?) maggot, mite. Sq. č'λá?lu 'mite'. -- Fl. č'éč'elu 'black maggot in meat'.

69. k'i h, k'i-t near; (with partial redupl.:) close second in race. Sq. č'i-, č'it- 'near, approch' č'í-č'it 'be close second in race'. -- Sh. kí-k'?et 'close second in race' kə-kí-k'?et 'near' CdA. č'ih 'approach, get near' č'it-e? 'be near' Kal. č'i?ít (č'e?ít) 'close' č'í?--č'e?t 'id'.

70. k'i x°, x°i k' (inversion) dry. Sq. č'i?x°, č'ix°-. -- Sh. x°ik'-m 'to dry fish' s-x°ik' 'dried salmon'. Possible extension of no.71.

71. k'a y ? dry out, wither. Sq. č'ay?-, č'i?; s-č'ay? 'dead tree'. -- Sh. s-k'i?-élq° 'dry, dead tree' (suff. 'tree'). See no. 69. 70.

72. k°u p i elder. Sq. k°úpic 'elder sibling'. -- Sh. k°é-k°pi? 'chief' k°upí?-st-e:m 'to respect'.

73. k°u m ascend from shore. Sq. k°um. -- Sh. c-k°úme 'come out of the water' Kal. kumš.

74. k°u s(-n, -m) star. Sq. k°úsn (Cw. k°ásən). -- Sh. sək°úsńt Kal. λk°kúsəḿ (λ- + redupl. 'diminutive').

75. k°u λ(-n) borrow. Sq. k°uλn. -- Sh. k°eλén CdA. kuλ Kal. kuλn.

76. k°u/a r green, yellow, sorrel, (derivative:) alder. Sq. k°l--úl'ay 'alder' (suff. 'tree'). -- Sh. k°al-t 'yellow, green' k°lé-k°le 'grass' c-k°le? 'sorrel horse' k°le'-eλp 'alder' (suff. 'tree') CdA. k°ar 'be yellow' Kal. k°a:lí? 'yellow'. The evidence for *u is limited to the Sq. reduplication-syllable (cf. no. 83).

77. k'°a t'a n mouse. Sq. k'°át'an. -- Sh. k°é-k'°tne CdA. k'°ít'eń Kal. k'°ék°tene (Fl. k°ék°t'ene?). Sq. and CdA. have preserved the orig. glottalization in k'° and t'; the deglottalization of t' in Sh. Kal. and of k'° in Kal. Fl. is due to clustering (see Vogt 1940a

p. 18f). Cf. nos. 31, 60, 95.

78. k'°a s hot, scorch. Sq. k'°as 'be hot, singe, etc.' -- Sh. k'°és-m 'warm up over fire' k'°ʔes-t 'scorched' s-k°é-k'°ʔes 'sun'.

79. k'°i n how many? Sq. k'°in. -- Sh. k'°inx CdA. k'°inš Kal. k'°inš.

80. k'°a n ʔ inspect (try out, aim at). Sq. k'°nʔ-us 'to aim'. -- Sh. k'°en 'inspect, try, choose, taste' x-k'°éń-xən 'look for tracks' (suff. 'foot') CdA. k'°iń 'try, choose, consider, examine' Kal. k'°eń 'inspect, try out'.

81. k'°i l skin, feather, quill (porcupine). Sq. k'°lʔawʔ 'skin (hum., anim., fish)' k'°í-k'°ləc' 'feathers'. -- Sh. s-k'°el 'quill of porcupine' CdA. s-k'u-k'°él' 'porcupine' Kal. s-k'°il 'porcupine'. For Sq. -awʔ cf. 89, 107.

82. k'°ə y grizzly, frosty. Sq. s-k'°í-ačn 'grizzly bear' (suff. 'back'). -- Sh. s-t-k'°eyʔ 'hoar-frost (on trees)', s-t-k°i-k'°éy 'silver--tipped grizzly bear'. In spite of 114, 120, Sh. -eyʔ by itself is insufficient evidence for *a after a labialized cons.

83. x m u/a n enemy. Sq. šman. -- Sh. xəmnúńs CdA. šémeń Kal. šəméń. The evidence for *u is limited to a probable reduplication-syllable in one IS language, and is therefore not strong (cf. no. 76).

84. x u l, x ə l(-k) turn, drill (round), x u l-k p firedrill (match) (suff. 'fire'). Sq. šuy- 'drill holes with awl' ši-č'< *šiʔ-č 'encircle' ší-šiʔ-č 'round' šéy-čəp 'firedrill'. -- Sh. xul'-ke 'firedrill' (suff. 'implement') xúl-əkp 'match' Kal. šəlč 'turn around' (if not assimilated from *səlč). Automatic labialization before u has given rise to forms with x°: Sh. x°ul 'turn, spin' CdA. xul 'bore hole' x°el' 'set to spinning' s-x°əlík° 'whirlwind'. Relation to no. 46 sel uncertain; CdA. x°el 'be alive, live' provides a remarkable semantic parallel to Sh. səlp- 'be active, eager'.

85. x w a λ trail (door). Sq. šuáλ 'trail, door'. -- Sh. xu-xuéλ CdA. hɬn-šég°el 'road' (deviating final cons.) Kal. šuʔšuẃéλ.

86. x°i w, x°u-l red. x°u-x°l to whistle. Sq. s-x°éw-qn 'whistling swan' s-x°ú-x°l-m 'a whistle'. -- Sh. x°iw- (unstressed: x°u-) 'to whistle' x°ə-x°l-éʔ 'meadowlark' x°ú-x°le-tn 'mouth-organ' (suff. 'implement') CdA. x°eleʔ 'meadowlark'.

87. x°u y go, come (appear). Sq. x°əy 'appear'. -- Sh. c-x°uy-t 'come out' CdA. xui 'go' Kal. xúi 'go'.

88. q a m to nurse, s-q a m woman's breast (milk). Cw. sqémeʔ 'breast'. -- Sh. qʔɛm 'take the breast' s-qʔɛm 'woman's breast' Kal. s-qeʔém 'milk' (Fl. 'woman's breast').

89. s-q a l á w ʔ beaver. Sq. sqlawʔ. -- Sh. sqleẃ Kal. sqaléʔu (Fl. sqeléʔu). Suff. *-awʔ as in 107, cf. also 81.

90. q a x° gather. Sq. qəx°-; s-qáx°-qax° 'grouped together'. -- Sh. c-q?ex° 'crowded together'. The medial glottalization in the Sh. form indicates a full grade.

91. s-q a w c potato. Sq. s-qawc. -- CdA. sqig°c (prob. contains qig° 'dig roots').

92. q'a m to swallow. Sq. q'əm-. -- Sh. q'əm- CdA. q'em Kal. q'am. Possible inversion no. 14.

93. q'i t' hoist up, (deriv.:) swing. Cw. q'ít'a 'swing' (Sq. kítu? 'swing' is a borrowing). -- Sh. qét'-ən 'hoist' c-qét'-ye '(baby) is in swing-cradle'. Possible case of ablaut i/a.

94. q'a c' intertwine, braid, weave, (embrace, strangle). Sq. q'ac' 'embrace'. -- Sh. qc'- 'weave, darn' x-qəc'-épsəm 'strangle with rope' CdA. q'ec' 'braid, weave, etc.'

95. q'i λ' heal up, (deriv.:) scar. Sq. q'iλ' 'heal up' s-q'iλ' 'scar' -- Sh. c-qit' 'scar' Kal. s-qt'ím 'scar' (see remark no. 77).

96. q'ə l x̌, q'l a x̌ round, q'l a x̌ ə n 'stockade'. Sq. q'iáx̌an 'stockade'. -- Sh. q'elx̌-, q'əlex̌- 'round' q'əléx̌en 'stockade'. Possible inversion no. 116.

97. q'a w witch(ery). Sq. ?əs-q'əw-q'áw 'bewitched, put under an evil spell' (cf? q'aw- 'be paid' and/or q'iw- 'envelop'). -- CdA. q'iw 'witch'. The Sq. word may be a borrowing from Lillooet as the spell referred to is cast by the Mt. Curry or Pemberton people (for a person put under a spell by a Squamish Indian one uses ?əs-x̌ét'-x̌ət').

98. q'a y(-m) build structure, raise tent, (camp). Sq. q'ey-m 'to camp' (the word must be separated from V-q'ay 'be high up' to which it is assigned in Kuipers 1967:357; Cw. q'él?mən 'camp' causes a serious difficulty because of its l). -- Sh. q'e:y-m 'set up structure', 'camping-spot' Kal. q'éi 'build a house, lodge, raise a tent' s-q'eyəmən 'tipi-pole'. The Cw. word is hard to separate from this group, but I cannot explain its l otherwise than as a result of an old interchange of y- and l--forms (which itself requires an explanation such as dialect-mixture or special developments of glottalized forms). Other instances possibly in Kal. sul besides su?i 'cold, chilly', in the CdA. suffixes -iwes and -ilg°es (Reichard 1938:631), -i?- and -il (ibid. 633); Sq. lúlum vs. CdA. dul < *yul 'sing' can be explained by as- or dissimilation; CdA. dex° 'descend' is prob. related to Sh. yux°- 'id.', which could be connected with Sq. lix° 'fall down' only if either the Sq. or the Sh. vowel is an innovation (i because of the preceding *y-, or u because of the following *x° ?).

99. q°a n(-im-) mosquito. Sq. q°an?ímač (Cw. q°é?en). -- Sh. q°eníməqλ.

100. q°ə λ i n (? q°ə λ i-n) birch. Sq. q°éλi?n (cf? q°λí?-šn 'shoe', suff. 'foot'). -- Sh. q°λin.

101. q°a l speak (think). Sq. q°al- 'think, mind, speak' (Cw. q°al Ms. q°ə̓yl Chill. q°e:l). -- Sh. q°el-, q°e?él CdA. q°a?q°e?l Kal. q°el. The a in the petrified CdA. reduplication is due to the following uvular.

102. q'°ə-q'°i p a (young or female) deer. Sq. s-q'°é-q'°ipa 'yearling deer'. -- Sh. s-t-q°ə-q'°í?pe 'doe'.

103. q'°u m hair on head. Sq. s-q'°úm-ay?. -- CdA. q'om-qən 'head' Kal. q'óm-qən. CdA. Kal. o < *u under the influence of the q in the next syllable.

104. q'°u c fat, stout. Sq. q'°uc. -- Sh. q'°uc-t (cf? CdA. q'°ec 'pl. are enduring, solid, firm') Kal. q'uc.

105. q'°a c' full. Sq. q'°ac' 'rise (of tide)'. -- Sh. q°ec'-t CdA. q'°ic' Kal. q'°ec'.

106. q'°ə l[1] cook, roast, ripen. Sq. q'°əl-. -- Sh. q'°el- CdA. q'°el 'cook, burn'. Cf? next item.

107. q'°ə l[2] (in deriv.:) berry, pick berries. Sq. s-q'°lám 'berry (generic)' s-q'°élm̓-x° 'blackberry'. -- Sh. q'°əléw-ən 'pick berries' CdA. q'°əliw 'bear picks berries' Kal. q'°əlé?u 'pick berries'. Cf? 106. For the IS suff. *-aw(?) cf. 81, 89.

108. q'°a x̌ or q'°a x̌° claw (foot), nail. Sq. q'°x̌°-uy- (Cw. q'°x̌°-əl-, q'°x̌°-al-). -- Sh. q'°əx̌°-, but s-q'°ex̌-t 'foot' CdA. k'°ax̌ 'be claw' (deviating initial) Kal. q'ox̌. It is impossible to say wether secondary labialization or delabialization has taken place in x̌/x̌°.

109. q'°ə y rock, shake, sway; q'°əy-ílx dance. Sq. q'°iílš 'dance'. -- Sh. q'°ey-, q'°i-ílx CdA. q'°eý 'bounce, dance' Kal. q'°əý-əməncút 'dance (American dances)'. Sh. e is by itself insufficient evidence for *a here, see no. 82.

110. q'°a y black. Sq. q'°áy-at 'fire a canoe, tr.' q'°ay'-čp 'soot' (suff. 'fire', cf. 84). -- Sh. q'°ey- 'black' CdA. q'°ed 'be black', q'°id 'blacken', q'°əd 'be black (of horse)' Kal. q'°ai 'black'. Possible case of ablaut i/a, but CdA. q'°id may well be secondary.

111. x̌ i/a m weigh down (grab to hold), x̌ ə m heavy. Sq. x̌ám-i 'grab and hold', x̌ám-an?-cut 'back up, withdraw', x̌ím'-x̌im'-náč-tn 'kidney' ("weighing down"), x̌əm 'heavy'. -- Sh. x̌m- CdA. x̌em Kal. x̌emt 'heavy'. Kal. e prob. opening of *ə.

112. x̌ i t first, fore, far. Sq. x̌éta 'far', t-x̌í-x̌ta 'day before yesterday, day after tomorrow', n-x̌ət-x̌ít'-ayus 'far-sighted' (suff. 'eye'). -- Sh. x̌et- 'in front, ahead, first'. Semantically cf. I.-Eur. *per-, see translations of PS item.

113. x̌ ə h c, x̌ h u c (x̌ ? u c) complete, four (as "complete"

number in the quaternary system). Sq. x̌a?úcn 'four'. -- Sh. x̌ec-p-qé-qen--kst 'a (complete) hundred' s-x̌ec-p-é:sq'ṭ 'Sunday' (suff. 'day'; the count begins with Mo., so that Su. completes the number) (cf? also x̌əc--x̌éc-t 'straight') CdA. x̌ec 'be ready, clothed, get ready' Kal. x̌c 'to be ready, prepared'. Unless Sq. x̌a?úcn contains the rare formative -ucin 'mouth', itself hard to explain in a numeral and leaving an unknown root x̌a(?)-, we have to start from a threeconsonantal root with h as C_2, confirmed by Sq. x̌ə-x̌a?úcn 'four (persons)'< *x̌əh-x̌əhúcn (all other numerals from 1-10 have total reduplication when referring to persons). A "state II" of the root with u as vowel (CCuC) is frequent in Sh., usually in the neighborhood of labialized cons. (kenx°-, kənux°- 'help', pətk°-, ptuk°- 'pierce', etc.) but occasionally also elsewhere (x̌eym-, x̌iúm 'big'); for another possible Sq. case with u cf. s-k'°iúc 'slave' (in other words Sq. has a: ?is, ?iás<*?əys, *?yas 'have a good time', x̌°iq'° 'be tied' x̌°iaq'°- 'be penetrated into (mass of people, underbrush, etc.)'). The glottalization of h is paralleled by that in the Kalispel form in no. 10 and may have been supported by that in Sq. nč'u? 'one', ?án?us 'two' and by the regularly glottalized form in the partial reduplication x̌i-x̌a?úcn 'four (animals)'. Final -n may go back to the transitivizer; it is also found in ?upn 'ten' and in Kal. t'áq'ən 'six' (see nos. 25, 132; cf. also 53, 74, 75 etc.). For the interior lges a reduction of *x̌əhc (*xac) to x̌əc has to be assumed. Semantically, the Sh. use of the root in the words for 'hundred' and 'Sunday' agrees well with the assumption of an orig. meaning 'complete number'. For cultural facts pointing to an old quaternary count see Swadesh 1953:35. The all-Salish root for 'five' *cil (no. 31) can be tentatively brought in connection with Sh. cí-cl-em 'new' (presupposing a V̄cil); for 'five' as "the new number" after a completed count of four (one hand) cf. I.-Eur. *new-n° 'nine' connected with *new-o--s 'new' as "the new number" after the completed count of two fours (both hands) attested by the dual ending in *ok't-ō(u) 'eight'. The Salish numerals 1-4 show a remarkable resemblance to those in Kutenay, which cannot be accidental: Salish 1. *nək'u? (51), 2. *?əsal- (141), 3. IS *ka?λas (Sh. keλés CdA. čí?λes Kal. če?λés Colv. k*?λís), 4. *x̌əhc -- Kutenay 1. -o:k'°e:-, 2. -as-, 3. -qaλsa-, 4. -x̌a:ca-. The parallelism does not go beyond four. For other evidence for linguistic contacts cf. Sh. s-né-nke Kutenay ná?nka 'orphan', also no. 42 above.

114. x̌ c'a y log. Cw. x̌əç'éy? 'unfinished canoe-hull' (Cw. ç'e= Sq. c'a). -- Sh. sə-x̌c'éy 'wood, stick'.

115. x̌ i λ' cut, bite (gnaw). Sq. x̌iλ'- 'chop, cut'. -- Sh. x̌λ'--ús-əm 'eat of the deerhead', x̌eλ'-mín 'be hungry for meat' CdA. x̌et' 'gnaw, eat close, graze'. Semantically cf. Sh. xl- 'bite' and CdA. šel

Kal. šil 'chop, split, cut with axe', also I.-Eur. *bheid-

116. x ə l q', x l ə q' to roll. Sq. xəlq'- 'roll or fall down' -- Sh. xelq'-, xleq' 'to roll'. Possible inversion no. 96. Sh. e before uvular is by itself not sufficient evidence for *a.

117. x ə y, x i; x i'n forbid, discipline. Sq. xəy-, xi- 'cause to stop (fighting, being a nuisance, etc.)' xi-áy?λ-m 'discipline one's children' (suff. 'child'). -- Sh. x?en- 'to forbid' x?en-íle-m 'discipline one's children' (suff. 'child') (cf? CdA. xic 'threaten with hand') Kal. xe?n 'to forbid'. For Kal. e? < *əy?, *i? cf. no. 6.

118. (? ə)x°u ? to cough. Sq. ?éx°u?n. -- Sh. x°e-x°ú?; səx°ú? 'a coughing-cold' Kal. λx°u?.

119. x°u s to foam, s-x°u s-m 'soapberry'. Sq. s-x°us-m; x°ús-um 'prepare soapberries' (cf? x°as-, x°əs 'fat, grease'). -- Sh. s-x°us-əm; s-t-x°es-étk°e? 'foaming water' CdA. xus 'foam (like beer)'.

120. x°a y 'perish'. Sq. x°ay. -- Sh. x°ey-.

121. h ə w y (h u y), h w ə y cease, finish. Sq. huy. -- Sh. wi? CdA. hoy, g°ey Kal. hoy, wi?. In this and the two following items the cons. h as C_1 in "state II" of the root ($C_1C_2VC_3$) is lost in the separate languages.

122. h ə y r, h y i/a r roll, round. Sq. hil-it 'roll' (< *həyr-) s-yilíq' 'top for spinning' (< *hyir-). -- Sh. yəl-p-ílx 'turn back', yəl--yel-p-ép-əl'x 'to meander', x-yəl-p-éne-tn 'tassels on sides of horse's head', full grade in yilk'°- 'be coiled' CdA. yar 'circular object rolls' yark'° 'be curved, crooked' yirk'° 'be curved' Kal. yal, yel 'round' (Colv. yir:). See remark no. 121.

123. h ə y q°, h y a q° fire(wood); t'əyq° spark. Sq. hi?q°-, yəq°-, 'fire' (Cw. hay?q°); t'i?q°-m 'throw off large sparks' s-t'i?q°-m 'large spark'. -- Sh. yéq°-; c-yaq° 'fire(wood)'; s-təq°-tí-t'q°-t 'spark'. See remark no. 121. Sh. a instead of e in cyaq° is an isolated irregularity; it could be due to inversion (< *iəhq°) but may well come under the heading of free variation as it exists between e and a, e.g., before w.

124. s-w a t who? Sq. s-wat (Cw. wet). -- Sh. swét-i, swet-k CdA. ség°et Kal. suwét.

125. w a c' pry loose, pick out. Sq. wac'-, wəc'- 'pry loose, lever up; tease'. -- Sh. wec' 'take out marrow' CdA. g°ic' 'pick out with stick'.

126. w ə n a x° real, true. Sq. wanáx°. -- Sh. wenéx° CdA. g°ənix° Kal. unéx°.

127. w ə λ q°, w λ ə q° cook, boil. Sq. wəλq°-. -- Sh. weλq°-, wλeq°-. See remark no. 116.

128. w i/a q' undo, remove, take apart. Sq. wíq'-c-n? 'force open'

(suff. 'mouth, opening'). -- Sh. wíq'-en 'undo, wreck' CdA. g°aq' 'spread apart as to part hair, remove layers'.

129. y a q' file, whet. Sq. yaq'. -- CdA. yaq'.

130. y ə ğ tie, tight. Sq. ya? 'tight, shut or tied tightly' (< *yəh'). -- Sh. yeğ- 'tie up'.

131. y ə w k° (y u k°) stingy (property). Sq. ?əs-yu?k° 'stingy' (Cw. ewk'° 'wealth, property' *yəw?k°). -- CdA. du?uk°, du?-du?k° 'be stingy, grudge', Kal. yə-yúk°-e? 'stingy'.

132. ? u p n ten. Sq. ?upn. -- Sh. ?up-əkst (suff. 'hand'; final n probably secondarily lost, cf. the Colv. form) CdA. upən(čt) Kal. ?úpən (Colv. ?úpən-kst).

133. ? a p' wipe. Ms. ép'-ət (Ms. é Sq. á). -- Sh. ?ép'-m CdA. ip' Kal. ?ep'.

134. ? ə m(-t), ? m-u t sit. Sq. ?mut. -- Sh. mut, ?emút, ?emet- CdA. em Kal. ?emút. The unstressed initial ?em- in Sh., Kal. may be the regular development of *?m̥- (with syllabic m).

135. ? i m ə c grandchild. Sq. ?ímac. -- Sh. ?imc. Possible inversion no. 29. For the Sq. form see remark on stress no. 10.

136. ? i t to sleep. Sq. ?ít-ut. -- Sh. ?itx, ?ətíx Kal. itš.

137. ? u/a c q (go) out. Sq. ?acq 'outside' ?ucq 'go outside'. -- CdA. acqe? 'go out' Kal. ?ócqe? (Colv. ?ácqa?) 'go out'.

138. ? a c q°, ? ə c a q° roast, bake. Sq. ?ácaq°- 'roast' -- Sh. ?écq°-en 'bake'. For the Sq. form see remark on stress no. 10.

139. ? í c'-a ?, (s-)? í c'a-m covering surface, blanket, dress. Sq. ?íc'am 'to dress, itr.' ?əc'-?íc'am-s 'wear, caus.-tr.' s-?íc'am 'attire'; suff. -ic'a 'dress'. -- Sh. síc'əm 'blanket'; suff. -ic'e? 'covering surface' CdA. sic' 'be blanket(ed)'; suff. -ic'e? 'all around, all over (esp. of wrapping or covering)' Kal. síc'əm 'blanket', suff. -íc'e? 'all around'.

140. ? u s(-a ?) egg. Sq. ?u?ús (cf? also ?úsa? 'large blueberry'). -- Sh. ?ú?use; suff. -use? 'small round object' CdA. use? Kal. ?u?úse? (Colv. ?ə?úse?, which Vogt 1940b:9 regards as the orig. form because of the Kal. assimilation *e?u > u?u).

141. ? ə s a l(-a ?) two. Cw. isé?lə (Cw. é ≈ Sq. á). -- Sh. səsélə CdA. ésəl Kal. ?eséł. The final schwa in Cw., Sh. must go back to a full vowel, and the Cw. form points to *-a?, see 5.4. For Kal. unstressed e cf. no. 61.

142. ? i λ n eat. Sq. ?iλn; s-?iλn 'food'. -- Sh. ?iλn; s-c-iλn 'food' CdA. iλn Kal. ?iλn; s-?iλn 'food'. There are deviating forms in Ms. ?éλtən 'eat' Cw. scéλtən 'fish', for the latter cf. Sq. s-čáy-iλn 'fish' (a "high" word) which contains the root as a suffix (cf. nos. 139, 140; also CdA. -ilən 'food').

143. ? u x° freeze. Sq. ?ux°n-ánt-m 'be frozen' (pass. of *?ux°n--án 'freeze, tr.') s-?ux°n 'ice'. -- Sh. ?ux°-xeń 'foot -xeń freezes' etc.

144. ? i q'° rub, shave, scoop. Sq. ?iq'° 'rub off'. -- Sh. ?iq'° 'fish with gill-net; shave'.

145. ? u q'°ə y sibling, cousin. Sq. ?əq'°í?tl 'brother, sister, cousin'. -- Sh. ?úq'°ey 'sibling of same sex', ?əq'°ýéws 'father's brother's children'.

146. ? i x̌° sweep. Sq. ?íx̌°-in?; ?íx̌°-tn 'broom'. -- Sh. ?íx̌°-em; ?íx̌°lè?p 'broom'.

147. ? a w(-t) call. Sq. ?u(?)-t 'invite'. -- Sh. ?ewt 'howl' Kal. ?áu 'name, call by name'. See 3.8.1.

148. ? a w t, ? ə w i t be behind, after. Sq. ?aw?t. -- Sh. ?ewít, ?ut- (cf? CdA. ig° 'set out for') Kal. *e?ut 'follow, go behind'.

149. ? a y exchange, barter, pay. Sq. nəx°-?ay'-s 'exchange, trade in' nəx°-?ay'-n 'change, replace'. -- Sh. ?ey 'pay' CdA. id 'exchange, barter'.

150. ? a y ? x̌ crab, crayfish. Sq. ?ay?x̌ 'crab'. -- CdA. a'ýx̌ 'crayfish' Kal. c'o?ix̌é? 'crab'. CdA. a is due to the neighboring uvular, cf. 43.

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