A GRAMMAR OF LEXICAL SUFFIXES IN COLUMBIAN SALISH

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A grammar of lexical suffixes in most Salishan languages must account for two things: stress and order.[1] Importance of one or the other may vary according to the predictability of stress (as in Sliammon, where stress is always on the first syllable of a word) or the propensity for compounding lexical suffixes (compare Columbian, which compounds them relatively freely, with Upper Chehalis, which does so rarely[2]). This paper deals with these two problems in Columbian Salish (hereafter Cn), but makes no claims that these solutions are applicable to any other language.

Stress placement in a complex word is one of the most difficult problems in nearly all Salishan languages, and Cn is no exception. Every full word must have one and only one primary stress. Most suffixes and many roots have both stressed and unstressed variants. The problem is to make generalizations as to whether the root or a suffix will be stressed in any given combination. Clearly there are some roots and some suffixes which are basically stressed and others which are basically unstressed (hereafter to be called strong and weak, respectively; "stressed" and "unstressed" will refer to actual occurrence of stress). Other roots seem to be variable as to stress according to the suffixes that are added to them; most suffixes that can be stressed have variable stress. But few of these groups are entirely consistent--strong roots sometimes occur unstressed and weak roots sometimes occur stressed; variable roots seem simply to be unpredictable. The first two inconsistencies are easy to deal with. A strong root will be unstressed under two conditions: 1) when followed by a strong suffix, and 2) when followed by two or more lexical suffixes, at least one of which is variable (or strong). A weak root will be stressed only when

followed by one or more weak suffixes, or when final in a word.[3] Otherwise any strong root will dominate any weak or variable suffix, any strong suffix will dominate any weak or variable root, any variable root will dominate any weak suffix, and any variable suffix will dominate any weak root. Examples of each of the nine possible combinations follow.

1. strong root + strong suffix

kʷaňútiy̌aʔ 'carry in the hand' (kʷán- 'take, carry', -útiyaʔ 'around')

maʕʷxíxmən 'ruin something for someone' (máʕʷ- 'break', -xíx 'benefactive')

2. strong root + variable suffix

tkʷánksən 'shake hands' (kʷán- 'take, carry', -ákst/-kst 'hand')

namáʕʷkən 'he broke his back' (máʕʷ- 'break', -íkən/-kən 'back')

3. strong root + weak suffix

kʷántaʔ 'take it!' (kʷán- 'take, carry', -taʔ 'sg. imperative')

máʕʷəlqs 'he broke his nose' (máʕʷ- 'break', -əlqs 'nose, point, end')

4. weak root + strong suffix

nkəmaɬq̓áyt 'shoulder' (kəm- 'surface, area', -aɬq̓áyt 'shoulder')

nksələwás 'mean person' (kəs- 'bad', -ələwás 'chest, heart')

5. weak root + variable suffix

snkəmíkən 'back' (kəm- 'surface, area', -íkən/-kən 'back')

kəstəmínən 'hate' (kəs- 'bad', -mín/-mən 'instrumental')

6. weak root + weak suffix

tkəməlqstxən 'shin' (kəm- 'surface, area', -əlqst 'shin', -xən 'foot, leg')

kəst 'bad' (kəs- 'bad', -t 'characterization')

7. variable root + strong suffix

tq̓íllawás 'suffer' (q̓íl-/q̓il- 'sick', -ələwás 'chest, heart')

kɬxarləwásən 'bib' (xár-/xar-/xər- 'cover with flat object', -ələwás 'chest, heart')

8. variable root + weak suffix

q̓ílt 'sick' (q̓íl-/q̓il- 'sick', -t 'characterization')

xʷúkʷɬən 'I washed it off him' (xʷúkʷ-/xʷk̓ʷ- 'clean', -ɬ- 'benefactive', -ən 'I')

9. variable root + variable suffix

snaq̓ílɬčaʔ 'stomach-ache' vs. snqəlapás 'toothache' (q̓íl-/q̓il- 'sick', -álčaʔ/-ɬčaʔ 'body (inside)', -apás/-aps 'tooth')

sx^wíyaps 'toothache' vs. sx^wiyána? 'cactus' (x^wíy-/x^wiy- 'sharp', -apás/
-aps 'tooth', -ána?/-əna? 'ear')

tx^wúk̓^wsq̓t 'clear sky, clear day' vs. x^wk̓^wíča?ən 'clean lint off a blanket'
(x^wúk̓^w-/x^wk̓^w- 'clean', -ásq̓t/-sq̓t 'sky, day', -íča?/-ča? 'body (out-
side)')

katxárk^w 'thin layer of scum on water' vs. snxəráxən 'a shield' (xár-/
xar-/xər- 'cover with flat object', -átk^w/-k^w 'water', -áxən/-xən
'upper arm')

scílksq̓t 'Friday' vs. ncilkstqín 'five tipis put together' (cílkst 'five',
-ásq̓t/-sq̓t 'sky, day', -qín/-qən 'head')

An example of a strong root losing stress to a combination of variable or strong
lexical suffixes is kɬcuščínxən 'deer-hoof rattle worn on ankle' (čuš- 'make a
banging noise', -cín/-cən 'mouth, edge', -xən 'foot, leg'); cf. čuškstəm 'rattle,
shake a rattle' (-ákst/-kst 'hand'). Another may be kɬk^wəncənáksən 'grab by
the wrist' (k^wán- 'take, carry',[4] -cín/-cən 'mouth, edge', -ákst/-kst 'hand')
or nk^wənapúsxən 'hold someone by the arm' (-áp 'base, bottom, lower end', -ús/-s
'eye, face', -áxən/-xən 'upper arm') vs. yapk^wánksən 'grab someone passing by
the arm or hand'. There are exceptions to this particular generalization, e.g.,
snaxítawasqən 'rooster's comb' (xít- 'ridge', -áws/-áwas/-u?s/-aws 'middle,
center', -qín/-qən 'head') vs. snaxítqən 'fancy ridge (on a house)' and
katxítətk^w 'ripples on water' (-átk^w/-k^w 'water').

As can be seen from the examples in (9) above, combinations of variable
roots and suffixes are unpredictable. Rare instances even occur of two forms
with the same variable root and suffix differing only in stress placement. I
have only one example in Columbian, səlya?qən 'round head' vs. səlya?qín 'a
knob southeast of Waterville (place-name)' (səl- 'round', -áya?/-ya? 'head',
-qín/-qən 'head'), and one in Upper Chehalis, wítq^w 'out on a prairie' vs.
witáq^w 'middle of a prairie' (wít-/wit- 'middle', -áq^w/-q^w 'prairie').

As noted above, a sequence of variable or strong lexical suffixes always
attracts stress; there is one exception to this: -áya?-qən often does not,
e.g., ?ack^wúsya?qən 'curly hair', n?aw?áwya?qən 'stand on head'. When more
than one variable or strong suffix occurs (whether lexical or otherwise), a
decision must be made as to which will bear stress. Any strong suffix will
retain stress; in a sequence of two strong suffixes, the second will be stressed.

Examples are infrequent, but it appears that in combinations of variable lexical suffixes and non-lexical suffixes, a lexical suffix will be stressed. And when there are two variable lexical suffixes, the last one will be stressed; there are a few exceptions, indicating that there is a hierarchy of stress dominance. -qín/-qən 'head' loses stress to -áp 'base, bottom, lower end', -áwas/-áw̓s/-u?s 'middle, center', or -áya?/-ya? 'head'; -álxʷ/-łxʷ 'house' loses stress to -á?st/ -a?st 'stone'; -íča?/-ča? 'body (outside)' loses stress to -áp 'base, bottom, lower end'; and -áxən/-xən 'upper arm' loses stress to -ús/-s 'eye, face'. Only eight three-member sequences occur, and four of these have weak -xən 'foot, leg' as last member. But only one of the other four has stress on the final member: -kən-amxʷ-cín. All other three-member sequences stress the penultimate suffix. Four-member sequences are stressed like three-member sequences.

The order in which lexical suffixes occur in sequences does not seem to be random. Suffixes occur consistently before or after specific other suffixes. The order may turn out to be insignificant, but since the total meaning of a complex form is not a sequential accretion of meaning corresponding to the physical sequence of suffixes (other than in layered derivations), I assume that it is not random. Because of limited co-occurrences, absolute order between all occurring suffixes is not possible. Insofar as it is possible to determine it, ordering seems to be according to the following list. The number of combinations in which each suffix participates is given in parentheses after the gloss for the suffix. Suffixes enclosed in a left bracket show no preference as to their relative order with other members of that group. Several suffixes occur in only one combination, so nothing can be indicated about their place in this sequence except that they immediately precede or follow another suffix; these are the suffixes to the left (for preceding) and right (for following) of the main column.

-s ? (8)

⎰-álus 'a stack'
⎱-álps 'back part of the neck'

⎡-ámx 'people' (2)
⎢-á:s/-áwas/-u?s/-áw̓s   -ásq̓t/-sq̓t 'sky, day'
⎣   'middle, center' (15)

-cín/-cən 'mouth, edge' (12)   -áks(ən)/-ks(ən) 'hand, arm'

-áy̓a?/-ya? 'head' (4)

-áp 'base, bottom,
    lower end' (3?)

-ána?/-əna? 'ear' (4)

-qín/-qən 'head' (17)   -álxʷ/-lxʷ 'skin, hide'

                                                       -ál/-əl ?

-míxʷ/-əmxʷ 'person,   -á?sən 'long solid object'

          man'   -álqʷ/-lqʷ 'long or tall   -áłp/-łp 'tree, plant'
                                       cylindrical object'

                           -áʍt/-ut 'distant' (2)

-ús/-s 'eye, face' (5)   -áx̣ən/-x̣ən 'upper arm'

-á?st 'stone' (4)

-áɫxʷ/-ɫxʷ 'house' (4)

-ált/-əlt 'child' (4)

(-əlqs 'nose, point,   -ákst/-kst 'hand' (8)
        end)

-ánk/-ənk 'belly, flat
          surface'

                       -ímt/-əmt ? (5)

-átkʷ/-kʷ 'water' (8)

                       -áp 'base, bottom, lower
                            end' (9?)

-álx ?   -íkən/-kən 'back' (9)   -úps/-ps 'tail, rump'

                       -íca?/-ca? 'body (out-
                             side)' (5)

-əlqst 'shin'   -xən 'foot, leg' (16)

-ápəla?/-pəla? 'handle'

                       -álqʷp 'throat, oral cavity' (2)

                       -álqs/-lqs 'clothes, dress' (3)

                       -əlqs 'nose, point, end' (2)

                       -átkʷp/-atkʷúp/-kʷp 'fire' (2)[5]

                       -úləxʷ/-əłəxʷ 'soil, earth' (5)

-áɫca?/-ɫca? 'body   -wíl/-wəl 'canoe, conveyance,
     (inside)'   container' (3)

                       -əxʷ/-xʷ 'resident' (8)

                       -útiya? ? (5)

Note that -áp occurs in two positions; so does -əlqs, but it is infrequent in combinations and is placed between parentheses in the left column to separate it from other suffixes which occur in only one combination. It is not certain that -s is a lexical suffix; its function or meaning have not yet been established.

Several of these suffixes should be reducible (at least historically) to a sequence of -ál-/-əl- (a combining element of indeterminate function) plus a lexical suffix. But this -ál- should precede all lexical suffixes occurring in a word (as it does, e.g., in Ch). Here, however, it occurs with the following suffix as a unit, never separated, and this unit then occurs following another lexical suffix. Synchronically, then, these forms with -ál- must be considered units (unless a function for -ál- can be found which is compatible with compounding of lexical suffixes). Such suffixes found to occur in combinations are: (a) after -s: -álus, -álps, -álqʷp; (b) after other lexical suffixes: -álxʷ, -álqs, -álqʷ, -ált, -əlawás, -əlqs, and possibly others (the two groups do not overlap).

Differences in the form of a few other suffixes suggest further analysis. Isolation of an element -ál-/-l- is suggested by -álča?/-lča? 'body (inside)' vs. -íča?/-ča? 'body (outside)'. The variation between the stressed and unstressed variants of -átkʷp/-kʷp 'fire' and -átkʷ/-kʷ 'water' suggests the isolation of an element -át-. And finally, the semantically similar sets -ákst/-kst 'hand' vs. -áks(ən)/-ks(ən) 'hand, arm', -á?st 'stone' vs. -á?sən 'long solid object', and -əlqs 'nose, point, end' vs. -əlqst 'shin' suggest that -t and -n may be extensions added to these and various other lexical suffixes, and may actually be -t 'characterization' and -n 'nominalizer'.

Some exceptions to the above order do occur, indicating layering of derivation. -cín meaning 'language' may come last, following -əxʷ 'resident'. Another layered sequence is -əlu?xʷ-úləxʷ, the only instance of the same suffix occurring twice on one word.

Three-member sequences (and four, if they are valid) vary the above order somewhat. Only eight three-member sequences have been found, and only two that may consist of four suffixes (both of which augment existing three-member sequences with -s-). These differ from two-member sequences in at least two ways, the second of which was noted above: (1) the ordering of elements is

different in -apáẃsqən and -kənamxʷcín; (2) stress is not on the last element
as expected in -apáẃsqən, -(s)qənúskst, and probably -(s)apúsχən.[6]

Often a sequence of suffixes has a specialized meaning, not necessarily
an obvious sum of the meanings of the members of the sequence. Thus -cənákst
and -cənáksən always refer to the wrist, and -cínxən to the ankle. Other such
specialized meanings are: -cənánaʔxən 'ankle bone', -qənúskst 'finger', -qənúsxən
'toe, hoof', -ápxən 'heel', -apúsχən 'upper arm', -ápxən 'lower end, base',
-aẃasqən 'crown of the head', -úsxən 'hip, thigh', -əlqsẃíl 'end of a canoe',
-əlqstxən 'shin, lower leg', -cənátkʷ 'shore', -(á)yaʔqən 'head, knob', -qənwíl
'load' or 'car', -qínxən 'knee(cap)'. Others always occur with one or another
positional prefix (S = stem): niʔ-S-ankákst 'palm', kat-S-qənál 'lid, cover',
n-S-qənáɬxʷ 'house top', n-S-cənána? 'temple', niʔ-S-ápqən 'hair on the head',
n-S-sáẃs 'juncture, point of contact', n-S-sáẃsxən 'knee', n-S-íkənxən 'sole',
kat-S-íkənxən 'footwear'.

Personal names commonly occur with two lexical suffixes.[7] Often the root
of a personal name occurs nowhere else in the language, so the total name can-
not be translated; however the suffixes are usually clear enough. At least two
suffixes occur only in personal names, both as the first element in a suffix
compound: -ímt/-əmt and -álx. Because of this restricted occurrence and the
unidentifiable roots, neither can be glossed. -álx precedes only -íkən/-kən
'back', but -ímt/-əmt can occur before five other suffixes. Besides these combi-
nations, personal names provide seven suffix compounds that have not been found
elsewhere. Some of these may in fact not be Columbian names inasmuch as inter-
marriage with the Colvilles has brought Colville names into the language, but
the order of the suffixes follows the list given above.

FOOTNOTES

1. Research on Columbian Salish has been made possible by grants from the National Science Foundation, the American Philosophical Society Library, and the University of Kansas. I wish to thank especially Laurence C. Thompson and M. Terry Thompson for comments and suggestions on earlier drafts of this paper.

2. In Upper Chehalis (Ch), sequences of lexical suffixes are much less frequent than in Cm; they might even be considered rare. Those that do occur seem to be much more loosely combined than in Cm. Or, put another way, the Cm sequences often have a specialized meaning by themselves and are added to the root as a sequence; in Ch, the second and third suffixes seem to be added to a stem already containing a lexical suffix (like the Cm forms considered layered). Only 13 two-member and one three-member sequences have been found in Ch: -iyaq-als in čípxʷiyaqaɬsn 'eyelashes', -apš-alucn in nsúlapšalucn 'mouth of Chehalis River', -aqp-ul in talaqápuɬ 'call for a canoe', -či-aqʷ in taličiáqʷ 'river side of a prairie', -axʷ-inp in siɬáʔlaxʷinp 'floor', -anʔ-iʔɬ in sk̓ʷaɬá·ñiɬ 'baby mouse', -als-iʔɬ in maxʷá·ɬsiʔɬ 'baby squirrel', -ɬnɬ-iʔɬ in qinúñɬiñɬ 'baby wolf', -či-amš in sqé·wɬčiamš 'Puget Sound Indians', -stq-alis in qʷáʔstqls 'headache', -iaq-als in q̓ʷaciaqals 'upside down, on one's head', -iyq-lwltxʷ in čsqíyaqlwltxʷ 'anthill', -aiɬ-q̓ in q̓ʷayáiɬq̓ 'Upper Chehalis language', -aiɬ-q̓-ɬnʔ in q̓ʷayáiɬaq̓ɬnʔ 'Upper Chehalis woman'. Little ordering is possible among these; -iʔɬ is a final suffix, as is probably -ɬnʔ, and -als precedes -iʔɬ. -či precedes -aqʷ and -amš; -als or -als (= -alis) follows -iyaq, -iaq, and -stq. -al- is a more obviously independent unit in Ch than in Cm, but nevertheless occurs as part of complex suffixes -als or -als, -alucn, and -lwltxʷ. Generalizations about stress cannot be made for Ch, except to observe that root stress seems to be more dominant than suffix stress; only once is primary stress on one of a sequence of suffixes.

Only three Ch sequences have both members cognate to Cm suffixes: -anʔ-iʔɬ (Cm -ana?, -alt), -als-iʔɬ (Cm -us, -alt), and -či-amš (Cm -atkʷ, -amx or -amxʷ). The third of these is in a different order from the Cm order.

3. Cm has several frequently occurring weak suffixes, resulting, if necessary, in this shift of stress back to weak roots. Some of these suffixes have stressed variants in some of the neighboring Salishan languages. Thus weak roots occur with stress more frequently than in these other languages.

4. kʷán- is problematic. The root may actually be kʷəná-, as in several other Salishan languages.

5. It is unclear why a few suffixes have variant stress location, e.g., -átkʷp/-atkʷúp 'fire', -ápas/-apás 'tooth', -áskit/-askáyt 'throat, chest'. Note that the strong root x̣ít- 'ridge' loses stress before the -apás variant of 'tooth': nx̣itapás 'a saw'.

6. -x̣ən does have a stressed form -áx̣ən, unlike -xən, -əlqs, -əlqst, and -əxʷ, but no examples occur of the stressed form in a combination of suffixes.

7. Suffixes on personal names are consistently associated with one sex or the other, with few exceptions. An unfamiliar name can thus be identified as male or female according to the final suffix. Women are definitely slighted in the distribution of suffixes, having only two or three to themselves and sharing up to three others; men, on the other hand, are designated by over 15 suffixes. The two suffixes used most frequently on women's names are -álqs/-lqs 'clothes, dress' and -átkʷ/-kʷ 'water'. A few others use -íčaʔ/-čaʔ 'body (outside)' (and extended to mean 'robe'), but men's names also have this suffix-- and more frequently; I can detect nothing within this group of names to indicate why some are given to women, others to men (e.g., kiʔkaymíčaʔ, q̓ʷəm̓qan̓íčaʔ, and qʷayíčaʔ are women's names, but pən̓qstíčaʔ, yənəm̓uʔsíčaʔ, and qʷiyíčaʔ are men's names). Two suffixes occur once each on a man's name and a woman's name: -úps/-ps 'tail, rump' (m. snaʕʷíc̓ps, f. kⱡəx̣ʷx̣ʷkən̓úps) and -úmt (unidentified) (m. laxʷúmt, f. nhaʔnúmt). The most common suffixes on men's names are -qín/-qən 'head', -xən 'foot, leg', -íkən/-kən 'back', -úləxʷ/-eləxʷ 'soil, earth', -áx̣ən/-x̣ən 'upper arm', -ásq̓t/-sq̓t 'sky, day', -cín/-cən 'mouth, edge', -ús/-s 'eye, face', -íⱡx (unidentified), and -íⱡaʔ (unidentified).

APPENDIX A: COMPOUND LEXICAL SUFFIXES

Listed in alphabetical order of the final suffix, and then the penultimate suffix, since the meaning of forms is based more on the final suffix than others.

-am-áksən	stkəĺkəĺxaṁáksəṅ	pine limbs
-cən-áksən	kĺkəṅḱəṅṗcənáksən	cuffs
	kĺkʷəncənáksən	grab by the wrist
-alqs-ákst	tḱəmaĺqsákst	lower arm
-alqʷ-ákst	tḱəmaĺqʷákst	lower arm
-ank-ákst	ni?ḱəmaṅkákst	palm of the hand
	(s)ni?xəṅṗaṅkákst	callus on the hand
-cən-ákst	ckĺyərkʷcənákst	bracelet
	kĺkəmcənákst	wrist
	kĺmahahcənákst	sprain one's wrist
	kĺməṙkʷcənákst	dislocate/sprain one's wrist
	ĺənpcənákst	broken wrist
	skĺkəṅṗcənákst	bracelet
-əlqs-ákst	nḱəməlqsákst	elbow
-qən-ákst	ntəmtəmxʷqənákst	worn-out elbows
-s-ákst	snq̇ənnċsákst	elbow
-qən-ús-kst	skaṅṗqəṅúskst	ring
	staṽtqəṅúskst	little finger
-qən-ál	kalaҁʷqənáltn	bottlecap
	katḱʷə́ɬqənáltn	opener
	katq̇a?qənáltn	cork for a bottle
	katxəṅqənáltn	a cover, lid
-s-álps	snċəṗəṗ̇q̇sálps	nape of neck
-atkʷ-álqs	nṗiẏatkʷáĺqs	wash clothes
	nṗiẏatkʷáĺqsən	washtub, washing-machine
-əmxʷ-álqʷ	sqəĺtəmxʷáĺqʷ	wood around the core of a tree
-u?s-álqʷ	miymiyu?sáĺqʷ	middle of a pole or tree
-s-álqʷp	nṗaḷpsáĺqʷp	sore throat
-aṽs-ált	sq̇a?aṽsált	middle child
-qən-ált	kĺq̇əĺxqəṅaĺt	setting bird

-uʔt-ált	staʔuʔtált	youngest child
-s-álus	nčəpq̓sálus	put together lengthwise
	snčəp̓əp̓q̓sálus	joints
-s-alúy̓aʔ	wək̓ʷwək̓ʷsalúy̓aʔ	play peek-a-boo
-qən-áɬxʷ	čəm̓qənálxʷ	brains
-qən-áɬp	q̓ʷiyq̓ʷiyqəṅáɬp	wild lupine
-aʔst-áɬxʷ	sɬk̓ʷaʔstáɬxʷ	Indian house of mats
-cən-áɬxʷ	sk̓əmcənáɬxʷ	doorway
-qən-áɬxʷ	nk̓əčqənáɬxʷtn	ridge-pole
	nk̓əmqənáɬxʷ	ceiling
-s-áɬxʷ	nxərsáɬxʷtn	curtain
-ap-ána?	nməq̓ʷapána?	bulge on the side of the face
-cən-ána?	nkəɬcənána?	part hair on the side
	nk̓əmcənána?	temple
	ntəq̓ʷcənána?an	slap on the cheek or side of the head
	ntəq̓ʷcənána?an	holler into one's ear
	ntəscənána?an	slap on the cheek or side of the head
-atkʷ-áp	nləx̌ʷatkʷápən	boil an egg
-ay̓-áp	ɬqəɬxay̓ápəm	pull a rope against something pulling on the other end until you almost sit down
-uʔs-áp	k̓ʷusuʔsáp	old-fashioned dress with a gathered skirt
-qən-á?sən	ɬəčqəná?sən	salmon-club
-ap-á?st	q̓ʷay̓apá?st	Camp Gilbert
-qən-á?st	sxəƛ̓tqəná?st	pipestone
-akst-átkʷ	nk̓ʷƛ̓pakstátkʷən	I dropped it into water deliberately
-kst-átkʷ	naxʷirkstátkʷəm	reach into water
-cən-átkʷ	kɬaʔacənátkʷ	reach the shore
	ɬaʔcənátkʷ	right next to the shore
	ɬqaləxcənátkʷ	sit on the edge of a river
	sčəlcənátkʷ	trees along the shoreline
	xəṅpcənátkʷ	ice along the shore
-qən-átkʷ	snq̓əƛ̓pqənátkʷ	a valley off Antoine Creek Valley
-s-atkʷúp	k̓əlk̓ʷsatkʷúptn	a poker
	tk̓əčsatkʷúp	put a pole or log on a fire

-s-áw̓s	nc̓əṗ̓q̓sáw̓s	splice, couple, extend
	nk̓əƛ̓psáw̓s	up to the knees in depth
	nk̓ʷəƛ̓k̓ʷəƛ̓psáw̓s	come uncoupled
	nk̓ʷəƛ̓sáw̓sən	uncouple, come apart, out of place
	nlaʕʷpsáw̓s	joint
	nlaʕʷsáw̓s	couple pipes with a sleeve coupling
	nq̓a?sáw̓s	sandwich
	ntəxʷsáw̓s	fasten a piece on the side to hold rigid
	ntəxʷsáw̓s 1x	brother and sister
	ntəɬsáw̓s	to glue
-əl-áx̌ən	tk̓əməláx̌ən	shoulder-blade
-s-áy̓	c̓əlsáy̓əṅ	eye-guards of antlers
-amx-cín	nxa?amxcín	Columbian language
-kən-amxʷ-cín	nsək̓ʷtkənamxʷcín	language of coast people
-əxʷ-cín	nyapənəxʷcín	English
-u?s-cín	m̓əq̓ʷu?scíṅ	knob at Carlton
	nkəc̓əc̓u?scín	pole crosswise in a creek
	nq̓a?u?scín	wedged in a crotch
	nyəmmu?scíṅ	pole crosswise in a creek
	nyərk̓ʷu?scín	arch over a canyon
-áp-əlqs	nkiṅtápəlqs	trail
	nxəṅápəlqsən	tailgate
-ámx-əxʷ	sxa?ámxəxʷ	local
-átkʷ-əxʷ	snqḥátkʷəxʷ	Okanagon Valley resident
-áw̓s-əxʷ	nṗəsqʷáw̓səxʷ	Wenatchi
-cən-əxʷ	skʷáxcənəxʷ	Moses Columbia
-íkən-əxʷ	sək̓ʷtíkənəxʷ	person from the coast
-kʷ-əxʷ	skat̓ít̓əltk̓ʷəxʷ	Big Bend country people
-úləxʷ-əxʷ	sṗaƛ̓əmúləxʷəxʷ	Methow Valley resident
-xən-əxʷ	stq̓ʷáyxənəxʷ	Blackfeet
-áp-c̓a?	c̓ápc̓a?	hard leather poorly tanned
-cən-íc̓a?	swəpcəníc̓a?	Hudson Bay blanket
-a?st-íkən	c̓sa?stíkən	Arbuckle Mountain

-uʔs-íkən	nciyuʔsíkən	hearth
	nɬənpuʔsíkən	tree breaks in the middle
	snmiẏtuʔsíkən	middle of a lake or river
	sqʷiʔtuʔsíkən̓	44 repeater rifle
-áp-qən	niʔkɬápqən	part hair in the middle
	niʔyəmápqən	hair ornament
-áw̓as-qən	nləq̓ʷáw̓asqən	bald-headed
	nƛ̓əm̓áw̓asqənc	pass overhead
	nttq̓áw̓asqən̓	California quail
	snax̣ítaw̓asqən	rooster's comb
-ap-áw̓s-qən	k̓ʷəƛpaʔpáw̓sqən	let go from the mouth
-áya?-qən	k̓ʷəƛ̓k̓ʷaƛƛáya?qən	head bobbing up and down on land
	nx̣ʷax̣ʷáẏa?qən	a canyon southeast of Beebe
	sc̓am̓áẏa?qən	skull
	wisxənáya?qən	long-head
-iya?-qən	sp̓ít̓k̓iya?qən	pileated woodpecker
-uʔs-qín	nɬq̓ʷuʔsqín	pack-rope
-ya?-qən	ʔack̓ʷúsya?qən	curly hair
	k̓ʷíwiya?qən	long-head
	nʔaw̓ʔáw̓ya?qən	stand on head
	pə́lya?qən	flat-head
	sə́lya?qən	round-head
	x̣ʷúpiya?qən	hair is messed up
-əna?-qín	ʔuʔkəna?qín̓	Douglas
-ya?-qín	səlẏa?qín̓	a knob southeast of Waterville
-əlu?xʷ-úləxʷ	c̓əx̣ʷəlu?x̣ʷúləxʷ	sand
-kən-úləxʷ	p̓əƛkənúləxʷ	Zena (or Olds?); a place near McFarland Creek
	sək̓ʷtkən̓úləxʷ	the coast area
-xən-úləxʷ	stq̓ʷiyxənúləxʷ	Montana
-kən-úps	tk̓əm̓kən̓úps	hip
-áw̓s-ús	x̣əm̓áw̓sús q̓aw̓ísqon	double-bit axe
-awt-ús	pstawtús	across the river
-cən-ús	c̓əkcənús	shore, toward the river

-uʔs-ús	cx̌txtuʔsús	go in a circle
	kəcəmuʔsús	extend around
	niʔkɬuʔsús	part hair in the middle
	niʔk̓əmuʔsús	forehead
	niʔɬqʷuʔsúsən	band across the front of a horse's head
	xətxtuʔsús	extend around
-akst-útiyaʔ	ksək̓ʷtakstútiyaʔ	using one hand
-alqʷp-útiyaʔ	nkčalqʷpútiyaʔ	straight bar (bit)
	nɬqʷalqʷpútiyaʔ	snaffle bit
-atkʷp-m-útiyaʔ	nciy̓atkʷṗṁútiyaʔ	fire-place
-qən-útiyaʔ	npaʔxənqənútiyaʔtn	shovel
-xən-útiyaʔ	(s)q̓aʔxənútiyaʔ	moccasin
-əlqs-wíl	sʔawtlqswíl	stern of a canoe
	sk̓əməlqswíl	front of a canoe
	sxitlqswíl	bow of a canoe
-ɬčaʔ-wíl	tk̓əmɬčáʔwil	side of a canoe
	ṫək̓ɬčaʔwíl	pole a boat
-qən-wíl	kaʔɬaqənwíl	three cars
	musaqənwíl	four cars
	nəqsqənwíl	a load, wagon-load
	q̓awsqənwíl	two loads
	tq̓awsqənwíl	two cars
-ána?-xən	sxʷəɬáṅaʔxən	hoof
-cən-ána?-xən	sməq̓ʷcṅáʔṅaʔxən	ankle-joint
	stəpcṅáʔṅaʔxən	ankle-joint
-áp-xən	ciy̓ápxən	build a fire at the butt of a tree
	čəɬčəɬápxən	spurs
	nḥcápxən	knot on the end of a rope
	nimimápxən	doubletree
	nɬənṗápxən	broken off at the ground
	nṗənṗənápxən	doubletree
	təmxʷápxən	worn-out heel
	(s)k̓əmápxən	heel
-ápəlaʔ-xən	k̓əmápəlaʔxən	heel

-áw̓as-xon	k̓lak̓aw̓asxoṅ	garter
	nk̓čay̓xaw̓a?sxon	ladder
-áw̓s-xon	k̓liylyáw̓sxon	get a nail in a tire
-s-áw̓s-xon	nmahaḣsáw̓sxon	knee comes out of joint
	nmoṙk̓ʷsáw̓sxon	dislocate/sprain a knee
	snq̓ančsáw̓sxon	knee
-aya?-xon	k̓čončanw̓aya?xon	crippled foot
-cín-xon	k̓ḷ̓xončínxon	ankle
	k̓ḷmahaḣcínxon	sprain an ankle
	k̓ḷ̓çuṣcínxon	deer-hoof rattle worn on the ankle
	k̓ḷmoṙk̓ʷcínxon	dislocate/sprain an ankle
-u?s-cín-xon	k̓ḷmiymiyu?scínxon	half-way up to the knees in depth
-əlqst-xon	k̓əmk̓ʷolqstxon	skinned shin
	sklíyyolqstxon	sliver in the lower part of the leg
	sḷ̓wopw̓ópolqstxon	hair on the legs
	tk̓əmolqstxon	lower leg
-íkən-xon	kala̓ʕʷíkoṅxoṅ	button-hook
	kala̓ʕʷíkonxoṅom	button shoes
	kat?ax̌íkonxonom	lace boots
	ḳatk̓omíkonxon	instep
	ṅk̓oṅṅíkonxon	feel a rock in one's shoe while walking
	nk̓ʷoƛ̓píkoṅxon	horse loses a shoe
	nla̓ʕʷlə̓ʕʷíkonxon	horseshoe
	nqxík̓oṅxon	horseshoe nails, shoe tacks
	ntəmx̌ʷíkoṅxon	worn-out sole
	nx̌ʷa̓ʕíkoṅxon	hole in the sole of a shoe
	snkomík̓oṅxon	sole of the foot
-qín-xon	ko̓ƛ̓pqínxon	above the knees in depth
	mahahqíṅxon	knee-cap slips to one side
	q̓a?qíṅxoṅ	knee(cap)
-ús-xon	mahahúsxon	pull hip out of joint
	nk̓omúsxon	thigh
	nḷa?úsxon	up to the crotch in depth
	nḷonpúsxon	broken hip

	mork̓ʷúsxən	dislocate/sprain a hip
	snliyyúsxən	sliver in the thigh
	snqʷaʔpúsxən	hip pocket
	x̣əlúsxən	fishing platform
-qən-ús-xən	ntənx̣ʷqənúsxən	worn-out toe of a shoe
	nx̣ʷaʕqənúsxən	hole in the toe of a shoe
	sk̓ɬsəd̓qqənúsxəň	split hoof
	staʔtqənúsxəň	little toe
-ap-ús-x̣ən	lək̓apúsx̣ən	armband
	mork̓ʷapúsx̣ən	break an arm
	nk̓ʷmapúsx̣ən	upper arm
	nk̓ənk̓ənpapúsx̣ən	armbands
	nk̓ʷənapúsx̣ən	hold by the arm
	nk̓ʷəɬpapúsx̣ən	arm slips out of joint
	nɬaʔapúsx̣ən	up to the armpits in depth
	nɬənpápusx̣ən	broken (upper) arm
	npiɣapúsx̣ən	pinch on the arm
	snc̓aň̓apusx̣ən	shoulder-joint
-s-ap-ús-x̣ən	snd̓onmc̓sapúsx̣ən	shoulder-joint

APPENDIX B: PERSONAL NAMES

-əmt-álqs	čosəmtálqs	f.
	ɬəxomtálqs	f.
	moləmtálqs	f.
	sínəmtalqs	f.
	skiẏomtálqs	f.
	sləxəmtálqs	f.
-xən-álqs	sk̓ʷupxonálqs	f.
	sqʷitxonálqs	f.
	yatxonálqs	f.
-uʔs-ásq̓t	čoɬxuʔsásq̓t	m.
	k̓ʷolusásq̓t	m.
-alt-átkʷ	k̓ʷunaltátkʷ	f.
-əmt-átkʷ	siyomtátkʷ	f.
	sloqʷumtátkʷ	f.
-əmt-kʷ	kkíɬoṁtkʷ	f.
	q̓aqcəṁtkʷ	f.
	sínəmtkʷ	f.
-ímt-kʷ	sixʷímtkʷ	f.
	sləxímtkʷ	f.
-uʔs-cín	nxʷəstuʔscín	m.
	york̓ʷuʔscín	m.
-əmt-íča?	p̓aʔxʷəmtíča?	m
	q̓ʷiyomtíča?	m.
-kən-íča?	nx̣iʔkoníča?	m.
-uʔs-íča?	yonoṁuʔsíča?	m.
-álx-kən	k̓oslaʔxʷálxkən	m.
	loʕʷloʕʷálxkən	m.
	nq̓ʷxʷálxkən	m.
	paq̓ɬpálxkən	m.
-əqn	xixitálxkən	m.
-ímt-kən	soɬpímtkən	m.
-áya?-qən	k̓aṅáya?qən	m.
	poḷṁáya?qən	m.

-aẏ-qən	túqʷaẏqon	m.
-xən-úɫəxʷ	paʔpaʔxənúɫəxʷ	m.
-kən-úps	k̓ƛəx̣ʷx̣ʷkoɳúps	f.
-cín-xən	k̓olpscínxən	m.
	k̓ɨmucaʔcínxən	m.
	q̓ʷolscínxən	m.
-íkən-xən	np̓áʔikoɳxoɳ	m.
-ímt-xən	k̓ɫolx̣ímtxən	m.