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Symbols used

- C T/\( \tilde{R} \)  \( T^f \) fricative
- K velar/uvular  \( T^p \) plosive
- R sonant  \( V \) a/\( t^y \)
- \( \tilde{R} \) vocalic R  /.../ morphophonemic notation
- \( \tilde{R} \) consonantal R  [... ] phonetic transcription
- \( R^n \) nasal/liquid  \( v \) word border
- \( R^g \) glide  \( \sim \) connects full words and clitics
- T obstruent  \( \text{:\sim} \) telescoping
0.0 The Bella Coola sound system comprises 34 phonemes: 23 obstruents (T), 10 sonants (R), and one vowel (a). The obstruents are subdivided into 16 occlusives (T^P) and 7 fricatives (T^F); the sonants fall into 6 nasals + liquids (R^N) and 4 glides (R^Y). The occlusives oppose glottalic (T) members to plain ones, except in the laryngal series, whereas a plain lateral occlusive is lacking. Both R^N and R^Y oppose consonantal (R̃) to vocalic (R̃) members.

0.1 Glottalic occlusives are pronounced with an accompanying closure of the glottis, thus giving an impression of a combination of plain plosive + glottal stop. They are in opposition to their plain counterparts: skma 'comb' vs. skma 'moose', p̃t 'warm' vs. p̃t 'thick', tas 'wren' vs. tas 'to poke somebody', c̃l 'to shade off' vs. c̃l 'to break, bust'.
0.2 The lateral glottalic affricate * sounds like a quick combination of 't' and 'l', as in 'greatly'. It is opposed to the sequences t + l, t + k, t + l, and t + k: *kh* 'to pick up a small object' vs. tlk* 'to swallow' and *tk ° 'he was strong', *kI 'fast' vs. *lI 'dog salmon' and *a-thi-c 'I painted it'.

The lateral fricative * unites the fricative, voiceless character of s with the lateral nature of l and *; it is also found in other languages, such as Welsh, where it is rendered as 'll' (Llewellyn).

0.3 Palato-velars equal [k] and [x] in 'cube' and German 'ich'.

0.4 Unrounded uvulars are pronounced considerably further back than the palato-velars and are in direct opposition to the latter, cf. sqma 'chest' vs. skma 'moose', qis 'stink currant' vs. kis- 'without, lacking', sx 'to scrape' vs. sx 'bad'. As to their place of articulation, they correspond with Arabic q and 'ch' in Scottish 'Loch'.

0.5 Rounded velars and uvulars are formed with simultaneous rounding of the lips, which is released shortly after the k° involved, except before u (see 2.1). The rounded velars are articulated further back than the palato-velars, which makes it harder to distinguish them from rounded uvulars, but there can be no doubt concerning their being opposed to each other: k°s 'rough' vs. q°s-m 'to sweat', k°p 'straight' vs. q°p 'empty', x°l 'to pull' vs. x°l- 'short'. k° contrasts with unrounded k: k°nis 'he put it down' vs. knis 'it is short', q°p 'empty' vs. qp 'blunt', sxi°l 'conceited' vs. xii 'often'.

0.6 Plain occlusives have aspirated allophones before C and *; velar and uvular plain occlusives assume in that position an affricative character,
while before \( T^f \) aspiration is arbitrary: \( [ʔ\text{mt}^h] \) 'herring eggs', \( [q\text{xl}a] \) 'water', \( [p(h)\text{mt}^h] \) 'thick', \( [t(h)x\text{t}^S] \) 'I'll cut it' - \( ?\text{at}, qa, p\text{at}, \text{txic.} \)

One observes close transition in \( ts = [t^S] \) (see 1.2.1), while \( tz \) may sound either \( [t^h\text{t}], [t\text{x}], \) or \( [\text{t}^S] \); \( kx, k^x, q\text{x}, q^x \) are always \( [k^x^c], \[k^x\text{o}^c], [q^x], [q^x^c] \) (cf. 4.2.0).

Before \( V \)'s and \( \mathfrak{R} \)'s, plain occlusives are unaspirated and voiceless, intervocally (-sonantally) they can have voiced allophones: \( [\text{palst}^h] \) 'fish scale', \( [k\text{ilk}\text{il}] \) 'herring', \( [q\text{enx}] \) 'shoe' - plst, klkl, qinx; \( [k\text{t\text{d}\text{w}}] \) 'little finger', \( [\text{q\text{mdm}]\text{em}]} \) 'sea urchins' - kita, \( \text{?mtm.} \)

Intervocally also fricatives can occasionally have a voiced timbre: \( [s\text{px}^\text{y}\text{w}] \) 'hand' - suxa.

\( k^x \) and \( q^x \) are always slightly affricative: \( [k^x\text{anat}^h] \) 'to cry, weep', \( [k^x\text{otm}^t] \) 'husband', \( [q^x\text{als}] \) 'fir needle', \( [q^x^c\text{t}^h] \) 'crooked' - \( k\text{anat}, k^x\text{tmc}, q^x\text{als}, q^t. \)

0.7 The vowel \( a, \) the vocalic glides i and u, and the automatic schwa preceding \( \mathfrak{R}^n \) (see 3.1) have a wide range of pronunciation, depending on the context in which they occur:

\( i \) varies from \( [i] \) before uvulars, \( [i^\prime], [i^c] \) between uvulars, \( [q^c] \) before \( \mathfrak{R}^c; [i] \) in palato-velar surrounding to \( [\text{t}^c] \) in other positions: \( [\text{t\text{ik}^c}] \) 'far' - \( \text{tix}^c \), \( [\text{mp}] \) 'wide, flat' - piq; \( [q\text{es}q\text{t}^c] \) 'little' - qiqtii, \( [n\text{s}x\text{a}^q] \) 'Mooseosewck Bay' - nusqliq; \( [\text{p\text{epe}nk}^q] \) 'little snake' - papinki, \( [s\text{q}^\text{m}] \) 'rope made of cedar limbs' - sim; \( [\text{q\text{asik}}] \) 'middle finger' - \( \text{qasik}, [\text{plik}\text{am}] \) 'to capsize' - plikm; \( [q\text{es}] \) 'stink currant' - \( \text{qis}, [p\text{e}\text{t}^c] \) 'pale, whitish' - pic.
a is pronounced [ɑ] in inter-uvular position, [A] before rounded velars, [a'] before R<sup>C</sup>, [ə] in other positions: [q̩̊'a̱x̩] 'raven' - q̩̊'a̱x̩°, [q̩̊'ta̱l̩p] 'ninebark' - qaqtalp; [k̩'l̩ax̩] 'musk rat' - klax̩°, [t̩k̩X] 'willow grouse' - tak̩°s; [ma'n] 'father' - man, [ya'w] 'hi!' - yaw; [x'na's] 'woman, wife' - xnas, [ʔx̩a's] 'halibut hook' - ʔaq̩°s.

u sounds [œ] in inter-uvular position, [o'], [o'] before R<sup>C</sup>, [u] in rounded velar surrounding, [o] in other sequences: [q̩œx] 'to call' - q̩œux, [q̩œx] 'to cover' - q̩œux; [ʔo'lx], [ʔo'l̩x] 'to steal' - ʔul̩x, [to'ms] 'breast' - tums; [k̩'uk̩Xp̩] 'grandfather' - k̩'uk̩°pi, [m̩uk̩X] 'red' - muk̩°; [s̩ol̩t] 'sea, inlet' - sulut, [m̩oq̩X] 'louse' - muq̩°a.

In the numerals, the vowel under the accent is always slightly dragged:

0.8 A striking characteristic of the Bella Coola language is that in almost any given context T can occupy the same position as Ñ and V (exceptions are enumerated in 9.0). Many words consist solely of obstruents: c̩x̩ 'true', ǀx̩t 'to go through a hole', stp 'mole, freckle', p̩x̩l̩t 'bunchberry', tk° 'to bleed', k̩ 'to fall', etc.

T-clusters of extreme length can be found at word borders:
ʔałaməkəts k̩'c s̩x̩is ta ʔmsta_tk 'then he told them that he had seen the man'; ta_s?astx̩le s̩x̩l̩x̩al̩s waʔakwaʔ_c 'when I was inside, the rain started to pour heavily'.

1.1 The vocalic glides i and u are classed as sonants (and not as vowels), because they are largely in complementary distribution with y and w: they are related to R<sup>Y</sup> as Ñ<sup>n</sup> is to Ñ<sup>r</sup> (see 3.2.0, 5.2).
Also, in view of the phonetic structure of Bella Coola (see 0.8), one cannot make an absolute distinction between 'vowels' on the one hand and 'consonants' on the other.

1.2.0 The alveolar affricate \( c \) is granted the status of a single phoneme, because it has a glottalic counterpart. Moreover, it occurs as frequently in the lexicon as any other phoneme. The pair \( c/c' \) takes part in the alternation \( VT/V'T \) (see 6.1), a feature that supports the monophonemic interpretation of \( c \).

1.2.1 Phonetically, \( c \) and \( t + s \) are not opposed. In all events, this is the case, when, in the latter sequence, \( t \) and \( s \) are separated by a morpheme boundary. They are, however, distinguished in my morphophonemic orthography: I write \( /c/ \), if \( [t^{s}] \) can morphologically not be split up in \( t + s \): \( [nəsêlêxt's'ta] \) 'lunchbox' must be interpreted as \( /nus-\text{sulixc}-ta/ \) (for 'z' see 4.2.1): sulixc 'provisions for a trip', nus-...-ta 'container, storing room'.

On the other hand we have \( [nəsêpêt's'ta] \) 'larder, refrigerator' = \( /nus-\text{ipacuut}-sta/ \), cf. ?ipacut 'to store food away', nus-...-sta allomorph of nus-...-ta. Here, \( [t^{s}] \) is a result of suffixation; wherever morphological evidence shows that \( c = /ts/ \), I write - in the morphophonemic notation - \( /ts/ \).

When, however, \( t \) and \( s \) belong to one and the same morpheme, this combination is distinct from \( /c/ \); it then sounds \( [t^{h}s] \), with aspiration of the \( t \) (cf. 0.6). In my notes only one example of this type was found, viz. nutastšiik 'musketgun', which contains tas 'to poke' and nu-...-iik 'half, middle'. For the reduplication-type compare \( k'\text{pa}-\text{pa} \) diminutive form of \( k'\text{pa} \) 'liver'.

1.3 ' and h occur only pre-vocally and pre-sonantally (cf. 7.0). They are classed as obstruents (not as sonants) for two reasons:
(a) they have no vocalic counterpart (a can in this respect not be taken into consideration, because h does not alternate with a, and ha is an admissible sequence, while wu is not and yi only rarely (see 5.5));
(b) h is much rarer than ' , while for R : R the opposite holds.

In fact, h is rather defective - it is found in only a few words: 'yanahu (diminutive 'yanahwi) 'turnips', wahu 'a name', ha'w 'caterpillar', hact 'hey!', hawhaw 'a mythical bird with a long beak', hawyat 'a geographical name', huuqat 'lullaby'.

2.1 Before u, only rounded velars and uvulars are found and are therefore, in that position, not distinguished from their unrounded counterparts.
In the context K' u labialization is not released as before other phonemes or a word border.

2.2 If a morpheme-boundary can be established, I write, in the morphological transcription, /K' -u/ or /K' -u/, depending on whether rounding is inherent or caused by the affixed element. Thus: muk' usm 'to paint one's (-m) face (-us) red (muk')' - /muk' -us-m/, but: ʒ̂q' us 'to slap (ʒ̂q) someone in the face (-us)' - ʒ̂q' -us.

In the case of acquired rounding K-clusters are affected as a whole - see 8.3.2.

2.3 It would be a misconception to think of K' as a sequence K + w, since (a) labialized K's are as frequent in the lexicon as the unrounded ones;
(b) in my notes two items occur, where K + w is distinct from K', viz. waŋwaŋcy 'great-grandchildren', and wxa (= xa) 'plural article,
relative case';

(c) K° never alternates with K(°)u as does Cw/Cu in general (e.g.: "apswic 'I'll blow it' vs. "apsutx 'blow it!'", "qaw 'to store away' vs. "aq"u (with inverted q) 'to emprison');

(d) in one type of reduplication, where TR → TRTR, it is not the alleged w that is reduplicated (as in e.g. "upwii diminutive of pwi 'halibut'"); but the next-following R: nu?nq"nayalakt 'hair under the arm' (cf. q"na 'pubic hair', nu...-alakt 'armpit'), in the same way as "nknci diminutive of knc 'whale'.

3.1 Sonants are, with regard to their occurrence in consonantal, c.q. vocalic position, distinguished in nasals + liquids (R^m) on the one hand and glides (R^n) on the other (cf. 3.2.2.1, 3.2.4).

The pronunciation of i and u is explained in 0.7. For the different nature of R^n see also 4.3.0.

R^n is articulated with a preceding murmur vowel, with the quality of (and henceforth labelled as) a schwa, the phonetic actualization of which is determined by the flanking C's. The allophonic variants of this schwa can be schematized as follows:

<table>
<thead>
<tr>
<th></th>
<th>-m</th>
<th>-n</th>
<th>-l</th>
</tr>
</thead>
<tbody>
<tr>
<td>palato-velar</td>
<td>î/ê (a)</td>
<td>î/ê (b)</td>
<td>î/ê (c)</td>
</tr>
<tr>
<td>K°</td>
<td>û (d)</td>
<td>e (e)</td>
<td>e (f)</td>
</tr>
<tr>
<td>dental/alv.</td>
<td>ê/a (g)</td>
<td>ê/a (h)</td>
<td>ê/a (i)</td>
</tr>
<tr>
<td>other C's</td>
<td>e (k)</td>
<td>e (l)</td>
<td>e/ê (m)</td>
</tr>
</tbody>
</table>

(a) [pʰkʰ'îm], [pʰkʰ'əm] 'mosquito' — pkm, [kʰ'îm] 'to break' — xm;
(b) [pʰtʰkʰ'în], [pʰtʰkʰ'ən] 'bark of bitter cherry tree' — pʰtkn,
[t(h)x’inx’nē] 'owl' - tnxni;

(c) [k‘iltq‘a], [k‘altq‘a] 'Cascade Inlet' - kltiιk, [sk‘yl], [sk‘el] 'cold' - skl;

(d) [k’x‘umł] 'firewood' - k’mł, [tk’h‘um] 'to dig cloverroots' - tk’om, [q’x‘umtēmōt’h] 'automobile' - q’x‘mtimut;

(e) [k’x‘entSåč] 'type of canoe' - k’nčala, [ʔaxk’enta’m] 'God' - [ʔaik’entam], [ʔi’q’snltēmōt’h] 'to laugh' - [ʔi’q’ntimut;

(f) [tk’x‘elx’s] 'to have a bleeding nose' - tk’lxs, [ʔk’elst’h] 'rockslide' - [ʔik’olst, [tq’x’el] 'to weave, braid' - tq’ól;

(g) [tēmk’x’æ], [temk’x’æ] 'prepared salmon eggs' - tmk’a, [sēmt’h], [sēmt’h] 'mountain' - smt;

(h) [tēnx°], [tēnx°] 'head' - tnx°, [ʔanōt’Sn̄m], [ʔanōt’Sn̄m] 'to remember, commemorate' - ʔanucm;

(i) [tēlk’x°], [telk’x°] 'to swallow' - tlk°, [tS’els], [tS’els] 'to be mistaken' - ’cls;

(k) [ʔq’pem] 'smoking' - ʔq’upm, [k’mstæ] 'person' - k’msta, [ʔl’xqem] 'to walk' - ʔl’xqm;

(l) [nōpşpent’h] 'to boil' - nupapnt, [t’hqenk’x] 'under' - tqnk, [mēnt’s] 'yellow, blond, hazel' - mnc;

(m) [pēlst’h] 'scale of fish' - plst, [nōk’æl], [nōk’] 'Kimsquit' - nukuł, [ήæl], [ήl] 'to clean' - ɬl, [wel] 'to spill' - wł.

A special variant of schwa is demonstrated in 3.2.1.1 and 3.2.5.

A svarabhakti-vowel is occasionally heard between n-, l- and -x, -x°:

[ʔo’l’x], [ʔo’l’x] 'to steal' - ʔulx, [sənx], [sənx] 'sun' - snx, [tēnx°], [tēn’ux°] 'head' - tnx°.
3.2.0 Both $R^n$ and $R^v$ are in complementary distribution with their consonantal counterparts in many cases: vocality of $R$ is predictable (within one morpheme) in the sequences $TR^T_2$ (1), $\bar{T}R^T_2$ ($TR^R_2$) (2), $a\bar{R}^T_2$ (3), $\bar{R}RT$ ($\bar{R}^V_2R^T_2$) (4), $\bar{R}^T_1R^T_2R^T_1$ (5).

Geminate $R$'s are pronounced 'long' (see 4.2) and are vocalic after C: [ʔamam'ʔa] 'hooded merganser' - ʔamam'mma, [menmen'ta] 'ladder' - mmmnta; consonantal after V: [yal'ek'x'] - yallak.

In $\bar{R}^T_1R^T_2\ldots$, $R_1$ is always consonantal: [mena] 'offspring' - mna.

3.2.1.0 $TR^n_1$: $\ddot{a}m$ 'to stand up', $\ddot{a}psu$ 'to blow'; $\ddot{a}lq$ 'to find', six 'blood'.

3.2.1.1 In the combination $T^T_1R^n_1T^T_1R^n_1$ (a reduplicative formation) the first $R^n_1$ is mostly reduced to a schwa, which differs sometimes, due to contact with an adjoining obstruent, phonetically from the schwa discussed in 3.1: [teltelk'x'], [teltelk'x'] 'slippery', [x'enx'em], [x'õx'em] 'hummingbird', [t(h)x'õnx'nẽ], [t(h)x'õx'nẽ] 'owl', [x'ix'na'sẽ'], [x'õnx'na'sẽ'] 'girl'.

This phenomenon is rendered as ($R^n$): t(1)tlk, $x(n)x^n$nm, tx(n)xni, x(n)xmaasii (see also 3.2.5).

3.2.2.0 $TR^n_2$: $\ddot{m}$ 'to erase', $\ddot{w}$ 'to spill', mu 'fishtrap'; $\ddot{m}$'c 'blond, hazel, yellow', $\ddot{w}$'c 'to kill', nup 'dress', wisx' 'yes indeed', kikyu 'to chew'; scmx 'to scatter', smiks 'mussel', stwix 'Stuie'.

3.2.2.1 $TR^V_2R^n_1$: 'ilk 'Indian rice', tin 'clitoris', tums 'breast', sum 'pants' (cf. 3.2.4).

In some instances, where the sequence $R^nV$ is a result of suffixation, free variation was observed between [q'R^n] and [cwR^n] (cf. 5.3):
Doublets like these apparently point to an adaptation $T_u R^N T \rightarrow T_w R^N T$ in the making and reflect the preference in Bella Coola for rising diphthongs. They are, in my orthography, given in both forms: $\text{lulx/lulx}$ and $\text{aplunk/aplunk}$.

3.2.3 $\text{a}R^N_T$: $\text{aycaym} '\text{boa kelp}', \text{sxamp} '\text{worn out}', \text{sxali} '\text{jealous}'; \text{mawl}s '\text{twenty}', \text{na}R^N_m '\text{gooseberry}', \text{sa}R^N_y '\text{thunderbird}$. 

3.2.4 $\text{a}R^N_T$: $\text{mIxal} '\text{feet are getting numb}', \text{mIic} '\text{I'll erase it}', \text{wIic} '\text{I'll spill it}' (\text{cf. 3.3, (a)}).

When $R_2$ is a glide and $R_3$ a nasal/liquid, we have $\text{a}R^N_T$: $\text{mItx} '\text{erase it!}', \text{mIuc} '\text{I take the bark off the cedar}', \text{wINTu} '\text{we're in war with them}', \text{yImuc} '\text{I'm shy}' (\text{cf. 3.2.2.1})$.

3.2.5 $\text{a}R^N_1 R^N_2 R^N_2$: $\text{mImn} '\text{both hands}', \text{mImpc} '\text{children}', \text{lulusta} '\text{mask}', \text{wImKacut} '\text{to limp}', \text{yuyux} '\text{bracelet}$. When $R_2$ is a $R^n$, the first $R_2$ is frequently reduced to schwa (\text{cf. 3.2.1.1}): $[\text{namn}m'k], [\text{na}R^m_n 'k] '\text{animal}', [\text{m}m'\text{mnt}^S], [\text{m}\text{mnt}^S] '\text{children}', [\text{wel}w\text{a}k'\text{at}^S'\text{ot}^h], [\text{w}\text{o}w\text{a}k'\text{at}^S'\text{ot}^h] '\text{to limp}' - n(m)nmk, m(n)mc, w(l)wKacut.

3.3 In the sequence $CRV$ the difference $\tilde{R}/\breve{R}$ is neutralized: presence, c.q. absence of schwa stands in correlation with the $C$ and $R$ involved.

The following pattern is observed:

<table>
<thead>
<tr>
<th></th>
<th>-mV</th>
<th>-nV</th>
<th>-lV</th>
<th>-wV</th>
<th>-yV</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R$</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>$T_1$</td>
<td>±</td>
<td>±</td>
<td>±</td>
<td>±</td>
<td>±</td>
</tr>
<tr>
<td>$T_2$</td>
<td>-</td>
<td>-</td>
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<td>±</td>
</tr>
</tbody>
</table>
$T_1$ stands for $p$, $p'$, $t$, $t'$, $c$, $c'$, $k$, $k'$, $q$, $q'$ ('short' and glottalic stops); $T_2 = c$, $s$, $z$, $k$, $x$, $k'$, $x'$, $q$, $x'$ (fricatives and affricates - $k$, $k'$, $q$, and $q'$ assume an affricative character before a $C$ or word border).

From the table above the following rules can be read:

(a) schwa appears obligatorily in the sequence $fRV$: m'na 'child', m'lic 'I'll erase it', miank $\overline{\text{m}y\text{a}n\text{k}}$ 'wide canoe' (cf. 5.3), w'lic 'I'll spill it', nuak $\overline{\text{n}o\text{w}w\text{k}q\text{a}l\text{a}}$ 'a name' 1);

(b) schwa is inserted frequently in the combination $T'V$: $t$($\overline{\text{y}}$)ya'axam 'to go across', $t$($\overline{\text{y}}$)ya'axik 'flattish roof', $c$($\overline{\text{y}}$)ya'km 'to reach for something', $c$($\overline{\text{y}}$)ya'ax 'flicker (bird)', $s$($\overline{\text{y}}$)yupa'ax 'point of land', $k$($\overline{\text{y}}$)yu'k 'to talk, discuss', $k'$u$k$($\overline{\text{y}}$)ya 'clean', kik($\overline{\text{y}}$)yu 'to chew', nu$k$($\overline{\text{y}}$)yals 'it's bright inside the house', nu$q$($\overline{\text{y}}$)yuc 'to open a door', $\overline{\text{i}}$?$\overline{\text{y}}$um 'to howl';

(c) in the sequence $T_1RV$ ($R \neq y$) a schwa is occasionally heard:

$p$($\overline{\text{a}}$)laa'k 'one-armed', $p$($\overline{\text{a}}$)naaxta 'dancer's apron', $?$ip($\overline{\text{u}}$)wic 'I'll hide it', $p$($\overline{\text{u}}$)wi 'halibut', $s$($\overline{\text{u}}$)wix 'Stuie', $t$($\overline{\text{m}}$)miix 'tree-stump drifting in the water', $t$($\overline{\text{u}}$)li 'dog salmon', $t$($\overline{\text{u}}$)waax 'spot at Kimsquit', $c$($\overline{\text{a}}$)la 'basket', $c$($\overline{\text{u}}$)wiix 'grey hair', $k$($\overline{\text{m}}$)matk 'to stay overnight', $k$($\overline{\text{a}}$)lat 'steelhead', $?$ix($\overline{\text{a}}$)maw 'they are walking', $q$($\overline{\text{a}}$)laa 'fence', $k'$($\overline{\text{a}}$)la 'belly', $q'$($\overline{\text{a}}$)na 'pubic hair';

(d) in $T_2RV$ ($R \neq y$) schwa is never (or hardly ever) articulated:

ona 'stinging nettle', $c$(l)$\text{ci}l$uksi 'young people', cwaakilak 'a name', smiks 'mussel', slaax 'much', swaxk 'a mountain at Kimsquit', $\text{k}nus 'two', $\text{b}$laa'xla 'to clean and dry berries', $\text{b}$waas- 'two', $\text{k}$ma 'to hurt, be sick', knum 'smoked salmon', qnmii 'soft', qla 'water', k'muuc 'horn used in sisawk dance', k'nnaax'ta 'box for storing food',
x'na hearings: 'spring of water', q'li 'green, yellow', xnic 'I'll break it',
xnas 'woman', xli 'penis', xma 'to bite', xlamanta 'animal's den.'

In the above-mentioned items R tendrá be written as consonantal R, except in (a), if R = R¹: miank, nuakila - since y/w and i/u are distinguished throughout (see 3.5).

3.4.0 In the following contexts the consonantal/vocalic character of R cannot always be predicted: TRRV (1), clusters of more than two sonants, occurring word-medially or finally (2).

3.4.1 TRRV: ?i'kuas 'fog' vs. k'liwas 'brother-in-law', lela 'ringfinger' vs. ?a'lwla 'rain', t påyäx 'in the prime of life' vs. q'lials 'green wall',

?alciñayx 'a mountain at Tallio' vs. ßimaw 'they give a feast'.

Often the choice between R and R is morphologically determined: if there is a morpheme-boundary between R and R, we usually see R: nicmílax 'to revive someone' (nic- 'alive', -mílax 'to cause to be'), t påyäx 'in the prime of life' (t- 'just', ya 'good', -lx 'inchoative'), xmpalus 'to break (xm) something into pieces (-alus'), while R prevails, when both R's belong to one morpheme: ?a'lwla 'rain' (wl 'to spill', -a 'rain-fall'), ?alknuamko 'my (-o) hands (-aak) are trembling (?alknm)', xmpałax 'to have (x-ì) a child (mna)', q'lials 'green wall' (q'li 'green', -als 'inner surface, wall').

But to this apparent rule there are exceptions: nukmílax 'to choke' (kma/km- 'to get stuck', -al 'throat'), ?atmnaak 'to have a paralyzed hand' (?atma/?atm- 'dead', -aak 'hand'), skmílaxmxta 'rake' (skma/skm- 'comb', -ulmx 'earth, soil', -ta 'implement'). Note, that these irregular items derive from stems subject to a change a → n (see 8.2).
3.4.2 Clusters of more than two sonants:  iliwa 'fast worker' vs. talyua 'is it Tallio?'); s mànmpuuc 'mute' (sm- 'entirely, all the way', måm- 'lacking', -uuc 'mouth, speech') vs. sm àmpcaw '(the fact) that (s-) they are (-aw) children (m àmpc).

3.5 It should now be clear that  and  are not in every position mutually exclusive and must be considered phonemically distinct: I will therefore not treat all possible cases of (un-)predictability of  in detail.

In my orthography,  and  are distinguished throughout ), whereas vocality of  will be indicated only where unpredictable, e.g. I write smt 'mountain', k'ôlwas 'brother-in-law', tmyalx 'in the prime of life', but nìmñix 'to revive someone', xàmpalx 'to have a child', skàmpulmxta 'rake'.

4.1 Doubled, i.e. juxtaposed identical occlusives never contract, but are released separately, as in e.g. ?ix?ak'ô k'a 'to go shopping', ti_k'tmcc 'my husband', ?àkhànułp 'gooseberry plant', ?aq'ôq'âlxayx 'hair gets entangled in something'.

4.2.0 In clusters of homophones  + T,  + T, and R + R, the first member is not released separately, but closely connected with the following phoneme, resulting in a long affricate, fricative, or sonant (for t + s see 1.2,1): kxa 'to strike a match', k'ô x'ayx 'it fits', c'ìyuu 'no good, damned', kxxs 'he saw me'; ci_xnass 'his wife' vs. ci_xnas 'a woman', -a àl 'throat' vs. -a àl 'foot', ?ássik 'backbone' vs. ?àsik 'middle finger', sissi 'uncle' vs. sisi 'a nickname', ?àx'à 'exclamation of disgust: yack!', ?àx'ô ut 'to cough'; t(1)tllkô 'pill' vs. t(1)tllkô 'slippery', m(n)mnta
'ladder' vs. m(n)mnta 'road', 'uyyu 'a name', s(m)asmti diminutive form of smt 'mountain'.

The automatic schwa before doubled sonants sounds more open and longer than the one occurring before a single sonant: \[\text{[tæţn'lk\textsuperscript{x}]}, \text{[mmm'nta]}, \text{[sešš'mtě]}\].

4.2.1 Telescoping of \(T_f \text{[R]} \) and \(R \text{[R]} \): should affixation result in a geminate \(R\)- or \(T_f\)-cluster, then this sequence is usually reduced to single \(R\), resp. \(T_f\): nu\(\text{[l]}\)xsm 'to clean (\(\text{[l]}\)) one's (-m) nose (nu-...-lx), kanus\(\text{[m]}\)x 'bad (sx) taste (kanus-...-m)', nus\(\text{[m]}\)mx 'preoccupied with (nus-...-mx) sex (\(\text{[m]}\) 'to copulate')', \(\text{n}[\text{an}]\)usu\(\text{[x]}\) 'having lost one's younger sibling' (\(\text{n}[\text{an}]\)us- 'not having', su\(\text{[x]}\) 'younger sibling').

Telescoping is in the morphophonemic notation marked as \(\text{\textbullet}\):/nu-ll\(\text{l}\)x-\(\text{[l]}\)-sx-m/, /kanus-sx-m/, /nus-\(\text{[m]}\)m-\(\text{[m]}\)-mx/, /\(\text{n}[\text{an}]\)us-suu\(\text{[x]}\)/ (cf. 5.4).

4.2.2 In quite a few cases, however - as a rule when personal affixation is applied - \(T_f \text{[R]} \) and \(R \text{[R]} \) are retained: \(\text{\textbullet}\)ax\(\text{s}\)an\(\text{n}\)u 'you are (-nu) an expert (\(\text{\textbullet}\)ax\(\text{[s]}\)an)', ci\(\text{x}\)n\(\text{[s]}\)a\(\text{s}\) 'his (-s) wife (xnas)', kann\(\text{[p]}\)max 'to hurt (kan-) each other (-max\(\text{[p]}\))'.

Note, that in \(\text{\textbullet}\)il\(\text{x}\)x 'to go around a point' (V\(\text{\textbullet}\)il 'to go in an arch', -lx 'protruding') (a) the two l's do not telescope, while (b) the second l is vocalic: the sequence \(R_1R_1T = \text{[R'}T\text{]}\) is in itself possible, cf. t(\(\text{\textbullet}\))ll\(\text{[n]}\)k 'pill'. This example constitutes a hapax.

4.3.0 At this point we must again make a distinction between \(R_1^n\) and \(R_1^\text{\textbullet}\), as the latter - when 'long' - are marked not only by their longer duration in relation to the short V's, but also by a higher degree of openness: \(\text{\textbullet}a = \text{[a'}\), \(\text{\textbullet}l = \text{[l'}\), \(\text{\textbullet}u = \text{[u'}\). Compare, in this respect, the special
variant of schwa discussed in 4.2.0. Furthermore, the doubled V's are remarkably stable in comparison with the single V's in that they show little allophony.

The opposition V/V' is phonologically relevant, as shown by the following examples: puḵ 'to poke' vs. puuḵ 'mouldy', taḵ 'plural demonstrative' vs. taax 'to lick', qaḵ 'rabbit' vs. qaaḵ 'salmonberry', ciḵ 'new, fresh' vs. ciix 'to dig', ñix 'far' vs. ?iix 'to burn', yulakm 'to stir soapberries' vs. yulaakm 'to rub one's hands'.

4.3.1 Another feature that sets V' rather apart from Rₙ is that, before T or ʃ, V' may alternatively be pronounced as ɬ V + ?, but because V'Rᵥ and V'O'Rᵥ must be sharply distinguished (see 6.2.1), we are compelled to regard V' as doubled V, an analysis which is also descriptively more convenient: thus, long V is put on a par with Rₙ.

The necessity of this analysis can further be substantiated by an item like [ʔéstʃyǎɬəs] 'to want to drink tea', which could not be written ɬ?istıələs, since this would read [ʔéstʃyǎɬəs], cf. [səʔəq'um] 'name of a month' = siʔəq'm. ɬ?istıəyalus would phonetically be represented as [ʔéstʃyǎɬəs] (see 6.2.1). I write ?istiialus ¹) ('is- 'to consume', tii 'tea', -aləs 'desiderative').

4.3.2 Before R_c the opposition V/V' is neutralized. Thus one may hear [mæn] or [ma'n] 'father', though the latter pronunciation is favoured. To be precise, V is articulated more open (and slightly longer) in this position.

When - on the phonetic level - a syllabic break or ʃ comes after RC, the V is preferably, but not compulsorily, pronounced short: [ya'n-tənʔ] 'house made of driftwood' vs. [yənt] 'driftwood', [pəpə'n-kəʔ] diminutive
of \([\text{pep}^\text{nk}]\) 'snake'.

Further proof of this neutralization is provided by the example
\([\text{ta}^\text{mmac}]\) 'my son' vs. \([\text{ta}^\text{manc}]\) 'my father'. We write: yancan\(\tilde{\text{z}}\), yanc; papinki, papink; ta\_mmac, ta\_manc\(\text{ }^2\).

4.3.3 In rapid speech V's exhibit a strong tendency to merge, when separated by a glottal stop, thus yielding a long V, according to a shift \(\text{V}_1 \text{V}_2 \rightarrow \text{V}_2\): \([\text{ala}^\text{at}]\) 'here' - ?ala_?ac\(\text{ }^2\), \([\text{na}^\text{sc}^\text{sta}]\) 'front door' - nu\(\tilde{\text{a}}\)asuusta, \([\text{na}^\text{manc}\text{e}^\text{m}]\) 'someone stood in front of him' - ?anu?i\(\tilde{\text{m}}\)tankim, \([\text{n}^\text{p}^\text{g}^\text{m}]\) 'narrow' - nu\(\tilde{\text{i}}\)pii.

4.3.4 In summary, phonemically long V's are (a) idiosyncratic (see 4.3.0); (b) caused by certain morphological processes: \(\text{x(n)xnasii}\) 'girl' from \(\text{xnas}\) 'woman', where we observe (regular) V-lengthening before \(T^\text{f}\) (cf. k\(\text{l}(\text{k})\text{laax'}\text{i}\) diminutive form of \(\text{k}^\text{lax}^\text{e}\) 'muskrat'); (c) optional or idiolectic: mask- or maask- 'how much?'; (d) in certain suffixes in complementary distribution with short V, depending on the root with which they are combined: \(\text{piq}^\text{q}^\text{uul}\) 'flat (\(\text{piq}\) rock (-\(\text{uu}\tilde{\text{l}}\))' vs. \(\text{skx}^\text{uul}\) 'black (\(\text{skx}\) rock (-\(\text{ul}^\text{?}\))'; (e) a result of deglottalization (see 6.1, 6.2.1, (d)).

5.0 When, due to grammatical processes, two V's come into contact, one observes the following modifications: telescoping (1); \(\ddot{\text{R}} \rightarrow \ddot{\text{R}}\) (2);
\(\ddot{\text{R}} \rightarrow \ddot{\text{R}}_1\ddot{\text{R}}_1\), a \(\rightarrow\) ay (3).

5.1 Telescoping: \(\text{i} + \text{i} \rightarrow \text{i}\), \(\text{u} + \text{u} \rightarrow \text{u}/\text{w}:
\(\text{hi}\) 'fast' + nu-...-ik 'mind, brains' \(\rightarrow\) nu\(\tilde{\text{m}}\)ik 'smart',
\(\text{qlu}\) 'to stick one's finger into something' + -\(\text{u}^\text{\text{az}}\)\(\text{'s}\) 'eye' + \(\text{m}\) 'medium' \(\rightarrow\)
\(\text{qlu}^\text{\text{a}z}\)\(\text{'s}\) 'sm to ... into one's eye', \(\text{qawc}\) 'to store (qaw) food (-\(\text{uc}\)).
5.2 $R \rightarrow \bar{R}: i + a \rightarrow va$, $i + u \rightarrow yu$; $u + a \rightarrow wa$, $u + i \rightarrow vi$; $a + i \rightarrow ay$:

ti 'steady' + $a\bar{z}$ 'foot' $\rightarrow ty\bar{a}z$ 'one's feet are firmly on the ground',
q'i 'to open' + nu...uc 'door' $\rightarrow nuq'yuc$ 'to open a door';
c' $\text{grey}' + q'sanik 'color of clothes' $\rightarrow cwaq'sanik$ 'grey clothes',
c' $\text{grey}' + ii\bar{z}$ 'head, hair' $\rightarrow cwi\bar{z}$ 'grey hair';
nu-kma 'to hurt inside' + iklxsak 'fingertip' $\rightarrow$ nukmayklxsak 'fingertip hurts'. Cf. 3.3.

5.3 $R \rightarrow R_{1}\bar{R}_1: i + a \rightarrow ia$, $i + u \rightarrow iu$; $u + a \rightarrow ua$, $u + i \rightarrow ui$ (phonetically $-iy\bar{e}$, $-iy\bar{e}$; $-\bar{u}m\bar{e}$, $-\bar{u}\bar{w}:$ after an $R$, $V_1$ is shortened 1) and connected by a homorganic glide with $V_2$: cf. 3.3); $a \rightarrow ay$:

mi 'wide' + nu...als 'room' $\rightarrow$ numials 'big room',
q'li 'green' + us 'face' $\rightarrow q\bar{li}us$ 'pale, sick-looking';
?a'linu 'you are there' + a 'question-marker' $\rightarrow$ a'linua 'are you there?',
kikyu 'to chew' + ic 'I ... it' $\rightarrow$ kikyuc 'I'll chew it';
kma 'to ache' + -alus 'chest' $\rightarrow$ kmayalus 'to have a cold',
tutwa 'to beg' + uc 'food' $\rightarrow$ tutwayucm 'to beg for food'.

5.4 The junctural $y$ in $-aya-$ must, in order to keep this combination apart from $-aa-$, be indicated; it will in the morphophonemic notation be written above the morpheme-separating signal (if any): /kma$\bar{a}$alus/.

For the benefit of uniformity, also in $-ayi-$ and $-ayi-$ (see 5.5), this $y$, though automatic, will be written: /tutwa$\bar{a}$uc-/.

Telescoping (cf. 4.2.1) is symbolized as $\approx$: /qlu$\bar{u}$aq's-m/, /qav-uc/, /nu-ki-ik/.

5.5 The sequence yi was found only in final position in some diminutive formations: walaasyayi from walasya 'lynx', kaakpayi from kapay 'humpback salmon', qpaapayi from qpa 'egg', ?aaccayi from ?acaya 'fox'.
6.0 C cannot be regarded as a sequence C + ~, because (a) T is as frequent in the lexicon as plain T; (b) T can be reduplicated as a whole (asjonut 'gooseberry plant', from asnonut 'gooseberry'), while \( T_1 T_2 T_1 T_2 \)-reduplications are unknown in Bella Coola; (c) \( R = ? + R \) in most cases (see 6.2.1); (d) \( \hat{x} \) would have to be seen as a hypothetical \( \hat{k} + ? \).

6.1 In some stems and suffixes VT alternates with V'T (cf. 6.2.1, (d)): tix-tiq-ta 'yarn, thread' vs. tiq 'to sew, mend', six-siq 'airplane' vs. s(i)q 'to fly', 2uuk-/2uk- 'repulsive', nus-xuuk-sta 'bath-tub' vs. x'uk 'to bathe', -aaq's/-aq's 'eye', -liic/-lic 'skin, bark'.

6.2 Phonetically glottalic sonants appear in two surroundings: \( R^V \) (1) and \( R^R \) (2).

6.2.1 \( R^V \): closure of the glottis precedes R and is released synchronically with it. Four types of occurrence can be distinguished:

(a) Glottalization is optional in e.g. ?a'^napic/?a'napic 'I know it', ?amatalaaxt/?amatalaaxt 'parent';

(b) Glottalization is obligatory in e.g. ?a'mayx 'to accompany', 'lac 'sea cucumber', yanimut 'to observe chastity' (vs. yanimut 'to brag');

(c) \( R^V \) is in complementary distribution with \( R^C \), cf. ?asmllxs 'uptools nose' ("as"?m 'erect', -llxs 'nose');

(d) \( V'R \) is in free variation with \( V'R \): puyaas/puuyaa 'Indian tea', plkiwa/plkiwa 'kind of box', halay/laalay 'a name', le'na/laana 'she' (cf. 6.1).

The variation \( V'R/V'R \) is not always permitted, cf. cuuulit 'to make a dental click', caamas 'Victoria', qaali 'a name', taala 'money', where \( V'R \) cannot be replaced freely by \( V'R \).
From (c) it follows that RV should be conceived as RV. Where this (pre-) glottalization is arbitrary, I write " in parentheses: a(?napic, a(?matalaat. The doublets in (d) are uniformly spelled with R: pu?yaas, plki?wa, laray, a?na — one only has to remember the rule that V can alternatively be pronounced V*.

The phenomenon discussed in (d) can be linked with the ones described in 4.3.1 and 6.1 and suggests a shift VC → V?C → V'C (or the other way around!), that is still in progress.

6.2.2 The monophonemic status of R seems to be attested in only a very few items, where R is found in pre-R position and cannot be equalled with + R, viz. sllapa [s'ellapa] 'a geographical name', clik [t'sellik] 'coyote', saywalus 'a name', xawli 'big mussel', uyyu 'a name', nanni diminutive form of tan 'grizzly bear'.

In each of these items glottalization is optional. Writing e.g. s'ellapa would imply a phonetic representation [s'ellapa], cf. a'mma [a'mma] 'hooded merganser'.

These R's differ phonetically from the ones discussed in 6.2.1 in that the glottal closure sets in simultaneously with the first R and is released immediately after it. This peculiarity leads us to interpret R?R as a sequence R?R, here R(?): sl(?lapa, c1(?lik, say(?walus, xaw(?li, uy(?yu, nan(?ni.

7.0 " appears before R and V only (beside the free variation-cases mentioned in 4.3.1) and is, in the contexts +V and +R, automatically present (in structural terms: in Bella Coola only C's can occur word-initially), but is written in all instances, because most roots preserve the glottal stop when provided with a prefix, cf. a'atma 'dead' from
'atma 'to die', s?mtsta 'chair' from 'mt 'to sit'.

Furthermore, can, as other obstruents, be inverted: nusímx plural form of nusímx 'preoccupied with sex', cf. ?uqx 'to call, invite' vs. 'uux 'to call', ?iknuas 'fog' vs. s-kinwas 'cloud'.

7.1 Some roots drop the ?: sulixc 'provisions for a trip', cf. ?ulix 'to choose', -c petrified zero-shape of -uc 'food'; saká 'canoe' vs. saká 'to build a canoe'; sacista 'fishing rod' vs. aci 'to fish with a rod' (s-sta 'implement'); slq 'brains' vs. lq 'to think'; sim 'rope made of red cedar limbs' vs. lim 'to wind, tie'. The prefix s- is a nominalizer.

Also in quick speech ? may disappear (cf. 4.3.3).

8.0 In morphological processes the following alternations are observed:

a/ç, ç/ç (1), a/n (2), K*/K (3), q/x (4), l/l (5).

8.1.1 a/ç: mnxt 'to dip up' vs. us-mnxt-uuc 'to skim off', imlk 'man' vs. imlaak 'male animal', lu-/law 'loose', aciwlt 'pregnant' vs. aciwa 'belly' (-lt 'offspring!'), tk 'to bleed' vs. tak 'sanitary towel'.

8.1.2 n/ç: nu-sqnc-ta 'bird's appendix' vs. sç 'sand' (nus-...-ta 'container/storage', here telescoped nu-...-ta), i-ç 'n-tilm 'to be laughing' vs. ç 'to laugh'.

8.1.3 i/ç: ix-pix-çp 'crabapple tree' vs. px 'crabapple', a-xc-m 'to lie down' vs. s-xc-ta 'bed'.

8.2 a/n: in many words, where a is found in final position, this a is replaced by n, when a suffixal derivation is formed: iiáxa 'medicine' → nu-iiáxnsn-uc-ta 'poison', caáxá 'to chase away'.

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"I cannot get rid of him", cik'a 'clam' → cik'n-als 'cup', tuutk'n-i diminutive form of tuka 'mink' (for k°/k see 8.3).

This change can occur only when the suffix involved has a V as its first phoneme, for otherwise a is retained: caaň-a-tic 'I chase him/them away'.

8.3.1 K immediately following u varies with K° in other surroundings (usually as a result of reduplication): tutk'mik 'to sprain one's back (-ik)' vs. tuk 'to stretch, sprain'; tuutk'ni diminutive of tuka 'mink', susq'ii = suuxi 'younger sibling'.

8.3.2 Although clusters of unrounded and rounded K's are possible (s'ixk°x° 'bushtail rat', q'aanq'ni 'youngest in family'), uvular and palato-velar clusters are labialized entirely, when followed by a u-initiating suffix: sk°x°us 'negro', lit. 'black (skx) face (-us)' = /skx°us/; k°x°usis 'he looked (kx) at his face (-us)' = /kx°us-is/; q°x°uosnm 'to caut a face in stone' (q'x 'to carve', -uos 'face') = /q'x°uos-nm/.

8.4 q/ň: in a couple of words, q is in free variation with ń: ńik'u = qik'u 'dragonfly', ńca/qca 'pussy willow', ńulxliwa/qulqliwa 'crazy'; in others, q is within one root in complementary distribution with ń, i.e. different allomorphs of the root are found before different suffixes: ciiń-ak 'to clear land' vs. ciiq-nk 'to dig roots', nu-yalń-m-tu- 'to put objects in a circle' vs. nu-yalq-iiń 'hoop', qiq(i)nzii diminutive form of qinń 'shoe'.

In some suffixes q (q°) alternates with ń (ń°): -aaq or -aań 'leg', -iiq' or -iiń' 'head'.
8.5 l/l: this variance was noticed in some enclitical elements, such as ì/lu 'still, yet' and alu/alü 'to try to'. The choice between the two allomorphs is regulated by the phoneme directly preceding: l is found after R and V, l after T: ?alinu_ìu 'you're still there' vs. ?alic_ìu 'I'm still there', pu_ìu 'they tried to come' vs. puks alü 'he tried to come'.

9.0 In spite of the almost unlimited phonetic tolerance in Bella Coola, the following restrictions are in force:

(a) ?, h, and k show defective distribution (see 1.3, 2.1, and 7.0);

(b) the sequences TPR, TH, T'1T', T'1T2, T'V, T'C1C1, T'K, and T'KK are, within the limits of one morpheme, not permitted, while others, such as -xx-, -qx-, -kx-, etc. were not recorded 3);

(c) R-clustering undergoes certain limitations (see 9.1).

9.1 Morpheme-initially the clusters ym, yn, and yl are not tolerated, while fnl, flm, and fln were not recorded 3).

Geminate R-clusters are found neither in initial nor in final position. The sequences yl and wm are in no case tolerated and word-medially reduced to resp. l and m, if suffixation would yield such combinations: tay 'to hit' + -lx 'nose' + -ayx 'passive' → talксayx 'to get hit on the nose', cay 'to stop, finish' + -lx 'inchoative' + -ak 'hand, work' → calxakm 'to give up, change one's mind'; k'ul- 'sex' + V-kaw 'to brace, support' + -mut → k'uškamut 'to pay a prostitute', qaw 'to bury, store away' + -mut → qamut 'to put away, bury'.

Double -yy- was recorded in only one item, viz. ?uyyu 'a name' (also uy?yu, cf. 6.2.2).
The doubled vowel aa is found only in medial position, with the exception of: 'aalacii 'to tell', 'aaxmlns 'an omen', 'aaṅl 'upstream area', 'aaṅqa 'to urinate'.

Also doubled u occurs only word-medially — the only exception is the enclitic tuu 'really'.

10.0 Stress is not phonemically significant and to a large extent subject to variation: yāki or yakī 'mountain goat', máci or macī 'cured salmon eggs'. In sonant- and V-less words stress is, of course, totally absent.

10.1 In certain environments there is, however, little variety concerning the place of stress:

(a) it usually falls on the last V in the position -Tf: k'uuk 'roof',
    tamás 'cockle', ta₄mstāₐtx ² 'the man';
(b) if a word contains a vocalic sonant or one following a V, the stress is, in general, attracted by the V, c.q. automatic schwa immediately preceding that R: maṅ'atlaqa 'dipper (bird)', ḫmkmânî 'weasel', yulūta 'spinning wool instrument';
(c) if a word contains two or more R's following a V, the stress will be fixed on the V before the last sonant but one: nuqayawâlsmaw 'they cleaned the house', ḫmstâliwa 'self-supporting', q'wânsxiwa 'whiteman';
(d) long V's tend to attract stress: ḫââxâta 'shoulderblade', sq'oââxq'a 'bullhead', q'wōdx'wdōx 'swan';
(e) in the surrounding ÑTf'P'Tf'Vf it is the V or P directly preceding Tf that is stressed: slûxta 'crosspiece', ḫlûsta 'curtain', ḫmsta 'person';
(f) the final i (ii) in diminutive formations is always accented.
The transcription of some items discussed in this report calls for comment. It should be emphasized that writing q'lials 'green wall' is not merely a matter of arbitrary choice. Let us consider three possible spellings, which can be summed up as follows:

(a) ?ykwjas q'lyals kykywyc ?alynwa nwakyla lwlx
(b) ?ikmuwas q'liyals kikyuwic ?alinuwa nuwakila lwlx
(c) ?ikmuas q'lials kikyuic ?alinua nuakila lu?x

(a) entails a hierarchy of vocalicity w > y > R^n, which does not hold true in every case (see 3.4.1); choosing (b) implies the disadvantages that (1) we use redundant symbols, while (2) the combination -iya- becomes somewhat ambiguous, cf. wa siyas [wasyyas] 'the reason why he's good', where є is not narrowed to І (5.3); notation (c) can be applied consistently and was therefore considered most feasible.

2) I have considered the items of the type full word + enclitic, preclitic + full word justifiable examples, because clitics behave phonetically like part of a word (suffixes) - they have in common with affixes, that (a) they play a decisive role in determining stress, (b) they influence, wherever possible, adjoining phonemes, and (c) they may have a V as initial phoneme.

In other respects clitical elements differ from affixes (semantic features, morphological and syntactic behaviour), but that is, within the scope of this paper, irrelevant.

3) This does by no means imply that such sequences are not permitted; in fact, additional data may prove that these combinations are possible, and may even reduce the number of limitations enumerated in 9.

At any rate, phonotactic restrictions do not seem to apply to compound words, cf. ti ?att 'the one who (ti...-t) painted (?at) it'.