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COLOR CATEGORIES AND COLOR QUALIFIERS IN HALKOMELEM, SAMISH, LUSHOOTSEED, NOOKSACK, AND YAKIMA

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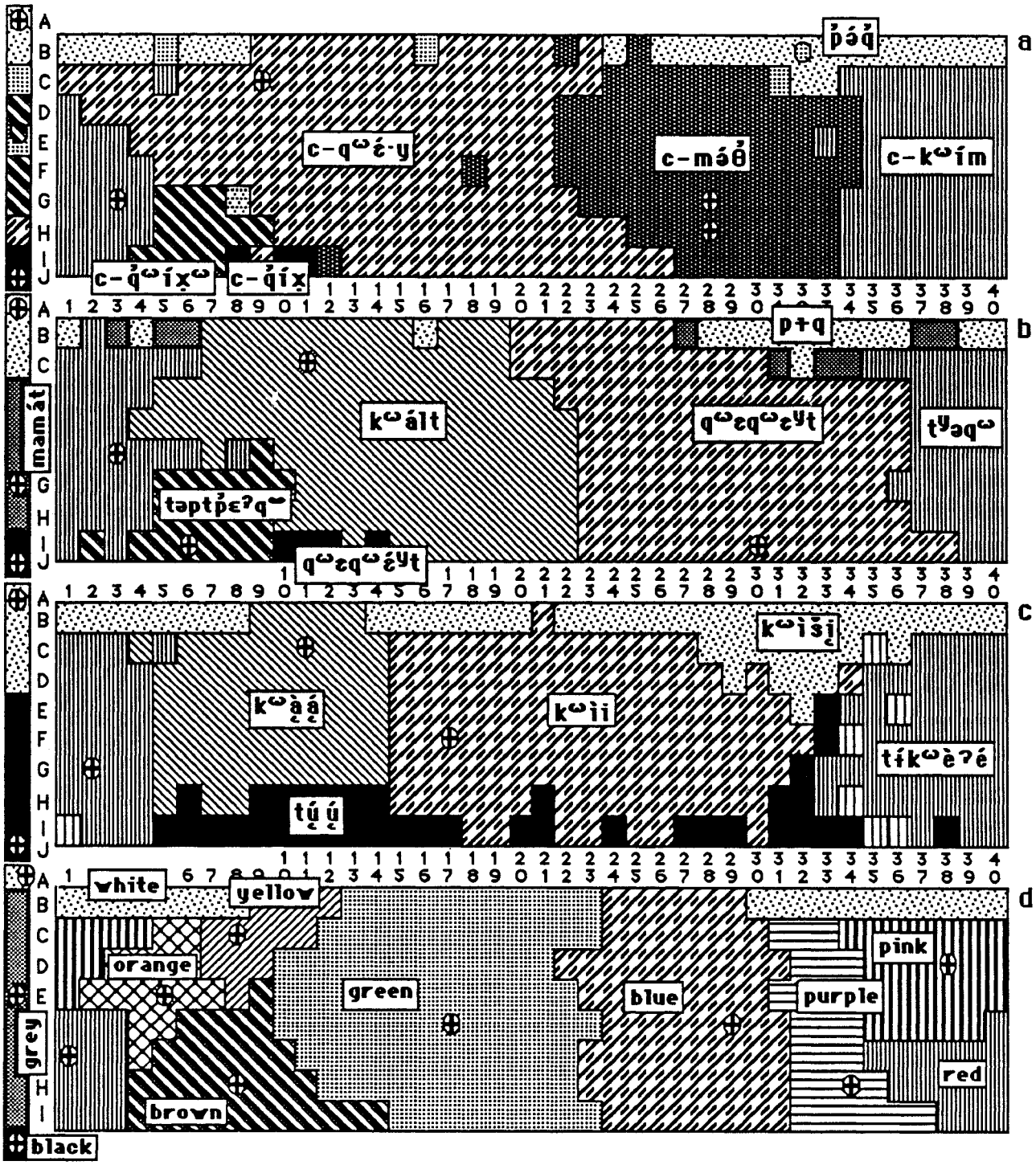
Introduction

This report will describe and compare data concerning color categorization and color naming from the following Northwest Pacific linguistic groups: Halkomelem dialects Tait, Chehalis, Chilliwack, Sumas, and Cowichan; the Samish dialect of Northern Straits Salish; Nooksack; Skagit dialect of Lushootseed; Yakima (Northwest Sahaptin). All but Yakima are Central Coast Salish languages. Halkomelem and Lushootseed express color nuance by modifying lexical roots with intricate systems of qualifiers.

Halkomelem is divided into three dialect groups (Galloway 1977, Gerdts 1977), Upriver, Downriver, and Island, each with distinct but slight differences on phonological, morphological, and syntactic levels. There are two remaining fluent speakers of Samish (and perhaps two younger semi-speakers). MacLaury and Galloway together did the tests with speakers of all the remaining Upriver Halkomelem dialects (Tait, Chehalis, Chilliwack, and Sumas/Matsqui), and with the oldest living speaker of Lushootseed (Skagit dialect). We also attempted the test with the last partial speaker of Nooksack (aged 94), but were only able to do the rice mapping (procedure 3 in Table 1 below) with four color terms (only two roots). Galloway did the color test with one fluent speaker of the Cowichan dialect of Island Halkomelem, who, however, turned out to know only a few of the color terms. Galloway also did the test with the only remaining monolingual speaker of Samish (Samish-b). MacLaury did the tests with Yakima and with Shuswap (fig. Ød).

Data presented here advance the effort to survey indigenous color categorization in the Pacific Northwest with standardized, replicable measurement (MacLaury 1986, 1987a).

As in the prior reports, discussion is prefaced with condensed review of data collection and display. In August 1987, both authors worked together to formally interview individual informants according to three independent procedures of elicitation, each based on direct stimuli of 330 Munsell color chips. Procedures and stimuli are fully described in MacLaury (1987a: Note 2). Table 1 outlines the three procedures and the orders of data resulting for each:



Figures 8a-d. Color-term roots: a) Halkomelem, b) Shuswap, c) Mixtec (data from Margaret and John Daly), d) English; ⊕ focus.

TABLE 1

Procedures	Data
1. **Naming.** 330 separate color chips are named in a fixed random order.	1a. **Naming Ranges** of color-term roots. 1b. **Modifiers** of roots.
2. **Focus Selection.** A "best example" of each term is chosen from an array of the 330 chips.	2. **Foci.**
3. **Mapping.** Each term is mapped on the array with rice grains, usually in steps in response to repeated requests to map all of X-term.	3a. **Mapping Ranges.** 3b. **Mapping Steps** within mapping ranges.

Correspondence between different data from an individual verifies their accuracy.

Figures Øa-d present derandomized naming ranges and foci in the format of the Munsell array. The unnumbered column at left displays white-grey-black and columns 1-40 display prismatic hues from left to right, lightest at top and darkest at bottom. The break between columns 40 and 1 is artificial, as hue composes a circular band. Row A (represented by one chip) is entirely pure white on the mounted array used for focus selection and mapping (Table 1, 2 and 3), while row J (represented by one chip) is entirely pure black on the display. Figure Ød provides the English-speaking reader with a reference by which to gauge the Munsell system and to assess how other languages have named it. Figure Øa shows naming ranges of an Upriver Halkomelem speaker and Figure Øb of a Shuswap speaker; both name all of yellow and green with one term. Figure Øc shows naming ranges from a speaker of Mixtec, an Otomanguean language of Mexico, which provides an indigenous case for comparison outside the Pacific Northwest; the Mixtec names all of green and blue with one term.

UPRIVER HALKOMELEM

Roots. Figures 1a, 2a, 3a, 4a, 5a, and 6a show naming ranges of color-term roots in five Halkomelem dialects. The sample of six individuals is too small to allow distinction of individual from dialectal differences. All name both yellow and green with one term, except the Cowichan speaker. The latter could not remember names for most colors, and she named blue with the cognate of the term with

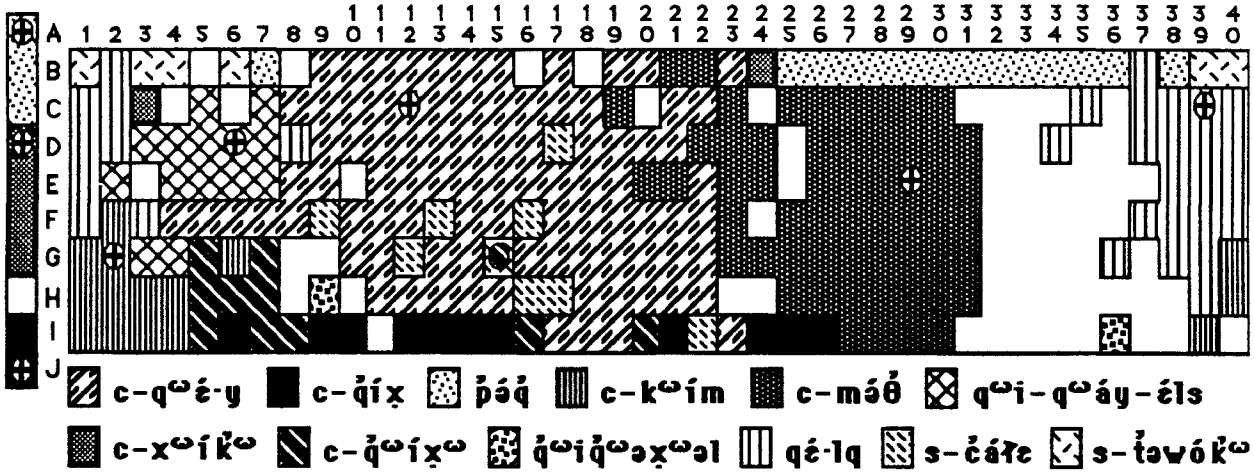


Figure 1a. Halkomelem color-term roots, Tait dialect, speaker AK, age 66, 1987.

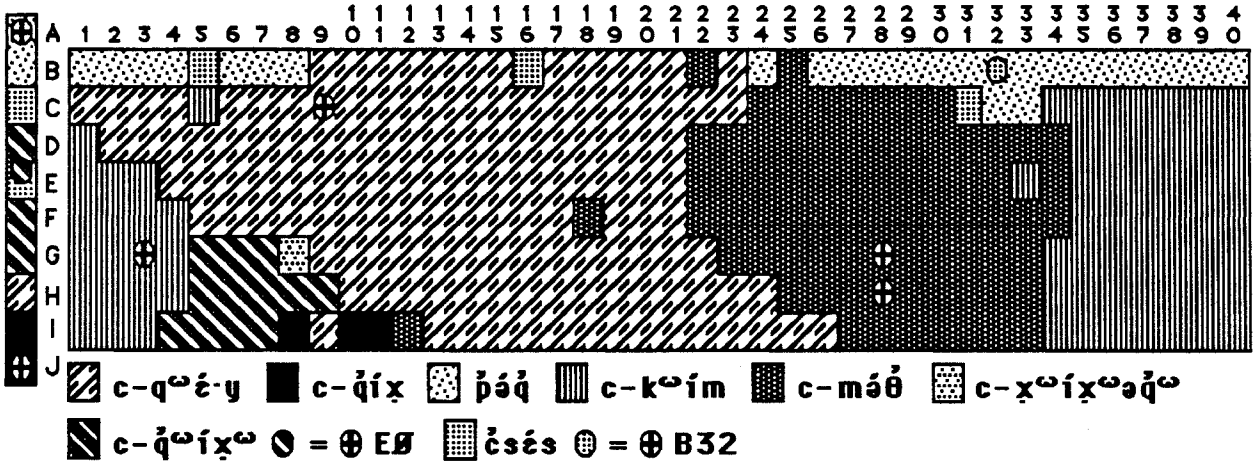


Figure 2a. Halkomelem color-term roots, Tait dialect, speaker TG, age 60±, 1987.

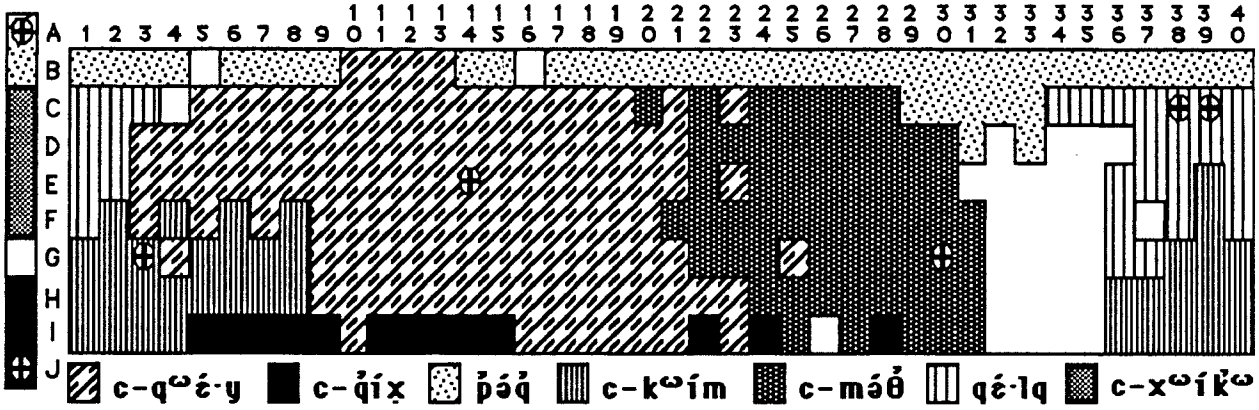


Figure 3a. Halkomelem color-term roots, Chehalis dialect, speaker EB, age 73, 1987.

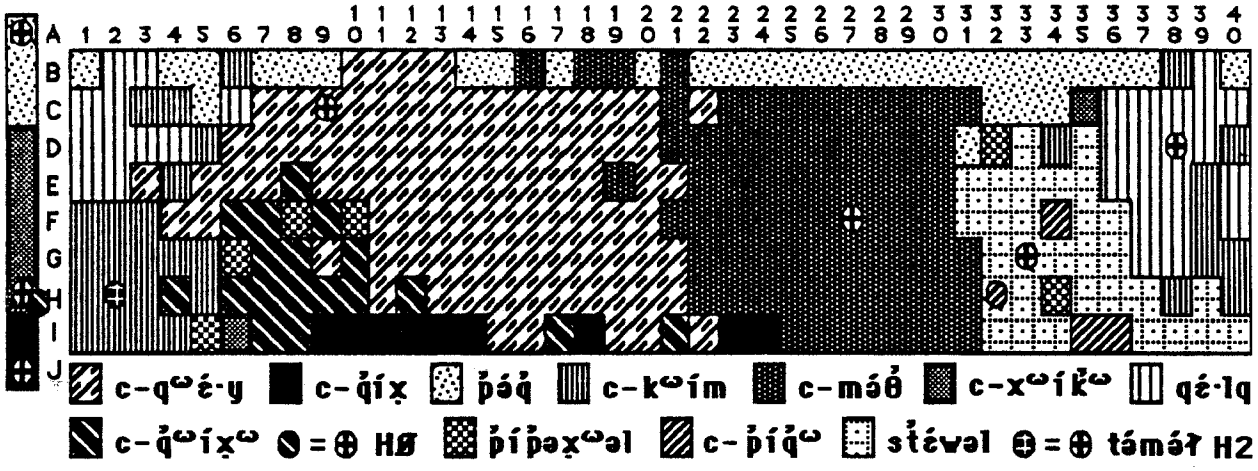


Figure 4a. Halkomelem color-term roots, Chilliwack dialect, speaker NP, age 80, 1987.

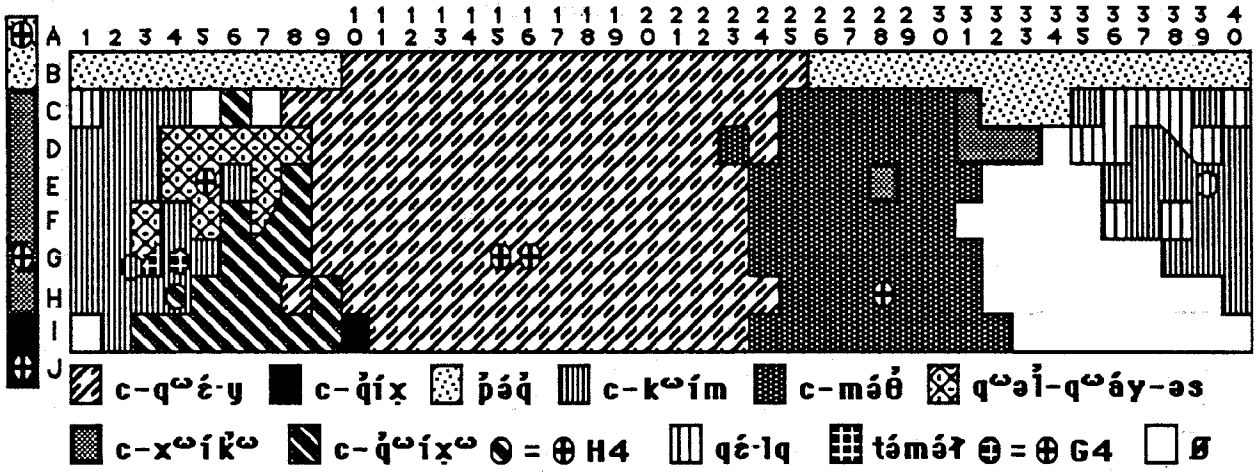


Figure 5. Halkomelem color-term roots, Sumas dialect, speaker AH, age 80, 1987.

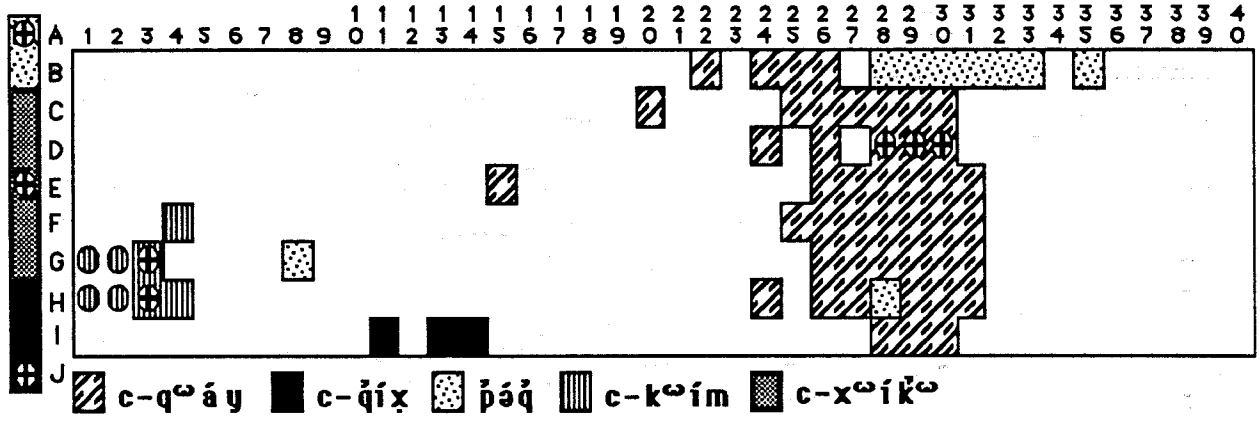


Figure 6. Halkomelem color-term roots, Cowichan dialect, speaker EU, age 60, 1987.

which the other Halkomelem speakers named yellow-with-green. Elmendorf and Suttles 1960:15 give Cowichan and Musqueam dialects /cqʷáy/ 'green' (Chilliwack /cqʷá·y/) and Cowichan and Musqueam /səl?éləc̓/ 'yellow' (Chilliwack /səl·éləc̓/); so more speakers of Cowichan must be tested to confirm the use of the former term for 'blue'. (/səl?éləc̓, səl·éləc̓/ may be related to the Upriver Halkomelem /ləléc̓/ '(have) jaundice, bile trouble' (perhaps with /s-/ 'stative' and /hə-/ 'continuative'?). We did not obtain /səl·éləc̓/ as a color term word.)

Regarding the Cowichan speaker's use of /c-qʷáy/ for 'blue', an interview done 12/5/64 by Oliver Wells with Bob Joe (BJ), one of the most knowledgeable speakers of the Chilliwack dialect then alive, has recently been transcribed verbatim from the tapes. When asked the word for green, BJ said it is the same as the word for blue. Later he gave /cməθ̓ tə swéyəl/ 'The sky is blue.' BJ was born about 1881 and trained as a tribal historian.

In Figure Øb, the Shuswap speaker also names blue with such a cognate, not yellow-with-green. (The spellings of the Shuswap forms are given phonetically on the chart. Phonemically Kuipers 1974 shows /ciqʷ/ 'red', /piq/ 'white', /qʷyqʷiy-t/ 'blue, purple' (root /qʷey ~ qʷiy/, /kʷal-t/ 'yellow, green' (the -t is 'state', i.e. stative), /təp-t̓ép-t/ 'dark' (from stem t̓ep-t 'dark'), and /mʕ-meʕ-t/ 'grey' (root /meʕ/, /ʕ/ is pharyngeal stop).

The Cowichan and Shuswap data (and the comment of BJ) together suggest that 'blue' was an original meaning, and further data from Shuswap (MacLaury 1986) and other Salish languages (Kinkade 1988) suggest that the cognates also meant 'green' at an earlier time, a usage similar to Mixtec of Figure Øc. Later the Tait, Chehalis, Chilliwack, and Sumas speakers of Halkomelem retracted the term from blue and extended it to yellow, preserving the original 'green' sense. None of the data suggest which Halkomelem term named yellow before the putative extension.

The speakers of Figures 1a, 3a, and 5a could not name purple. The speaker of Figure 2a named purple with terms focused in blue (G-H 28) and in red (G3); the speaker of Figure 4a named purple with two unique terms, /s(-)t̓éw-əl/ and /c-p̓íqʷ, s-p̓íqʷ/. Surprisingly, /c-p̓íqʷ/ (with modified forms /s-p̓íqʷ/ and /s-p̓i[-p̓ə-]qʷ-əl/), is cognate with the Nooksack root in /p̓əqʷ-p̓íqʷ/ (attested once as 'yellow?' (LT:GS), once as 'green' with a comment that the same word [root?] means 'dark blue' in Chilliwack Halkomelem). The same root was also reported in Nooksack /č-p̓íqʷ/ 'yellow' (PA:GS 1.26)(beside Upriver Halkomelem /s-p̓iqʷ/ 'yellow' from the same speaker 1.10) and in Nooksack [pí·qʷəlæ·noxʷ] probably /p̓íqʷ-əlæ̀noxʷ/ 'autumn, when leaves turn yellow' (PA:GS 1.10). This root is also cognate with one in Squamish, as in /p̓əqʷ-p̓íqʷ/ 'yellow, a kind of paint found in the mountains'.

Another root appears at I5, G6, F8 and F10 (tan shades), only in inceptive forms, /p̓íp̓əxʷ-əl, s-p̓íp̓əxʷ-əl/. It is unclear

whether the root is /p̓íx̌ʷ/ with 'continuative reduplication' or /p̓əx̌ʷ/ with prefixed 'diminutive' reduplication. There is a word /p̓íx̌ʷ/ 'to leak (as of a canoe)' which seems unrelated (note its continuative /p̓í[-p̓ə-]x̌ʷ/ 'leaking').

A few of the words used as color terms have meanings outside color terms: /sc̓áɬɛ/ 'leaf', /qélq/ 'rose flower, rose hip', /s-t̓əwókʷ/ 'diatomaceous earth or clay (used as a whitening for dog wool for weavings and as a powder for paint' (could this be related to the root in /s-t̓éw-əl/ 'purple'?), /kʷú·l/ 'gold' (< English), /xʷíxʷəkʷ/ 'grayish blueberries, prob. oval-leafed blueberry (Vaccinium ovalifolium)' (derived from the color term apparently, not vice versa), /c̓sés/ 'ashes', /t̓éməɬ/ 'red clay of iron oxide used for religious paint and face paint, ocher', /p̓q̓élqəl/ 'mountain goat (Oreamnos americanus americanus)'.

Qualifiers. Each Halkomelem speaker uses a different inventory of qualifiers to denote shades of color within a category. Qualifiers here are unbound and preposed adverbially to the root that names the category; or they are bound to the root as prefix, suffix, reduplicative prefix or infix, vocalic ablaut, or extra vowel length. The term qualifier is not meant as a new syntactic or semantic category for the language, merely used as a convenient term for things semantically modifying the color term words.

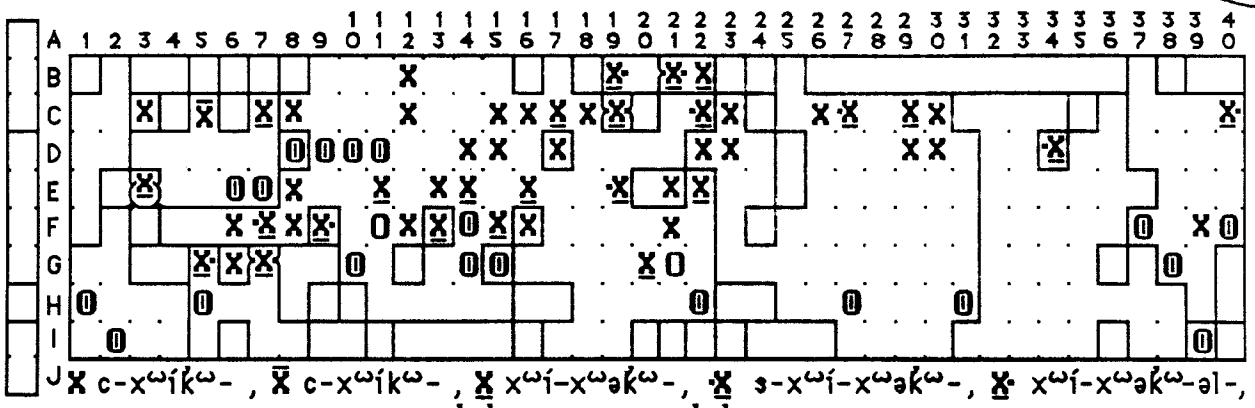
The Tait speaker of Figure 1a (AK) used qualifiers, but she alone modified roots with other roots, as an English speaker would say 'greenish blue'. The qualifiers she used show considerable sophistication and may actually pinpoint the colors more precisely than any other strategies. More on them below. Figs. 1b-d

The Tait speaker of Figures 2b-c (TG) used bound qualifiers to name colors that are light or marginal to red-focused, grey-focused and yellow-with-green categories. She used unbound qualifiers to distinguish light and dark in all categories.

The Chehalis speaker of Figure 3b (EB) used only bound qualifiers, including vowel length, which designate marginal colors in most categories. One modified form, represented as **A**, pertains to orange colors within the yellow-with-green category; the speaker of Figure 1a uses the same form to name 'orange' as an autonomous category apart from yellow-with-green.

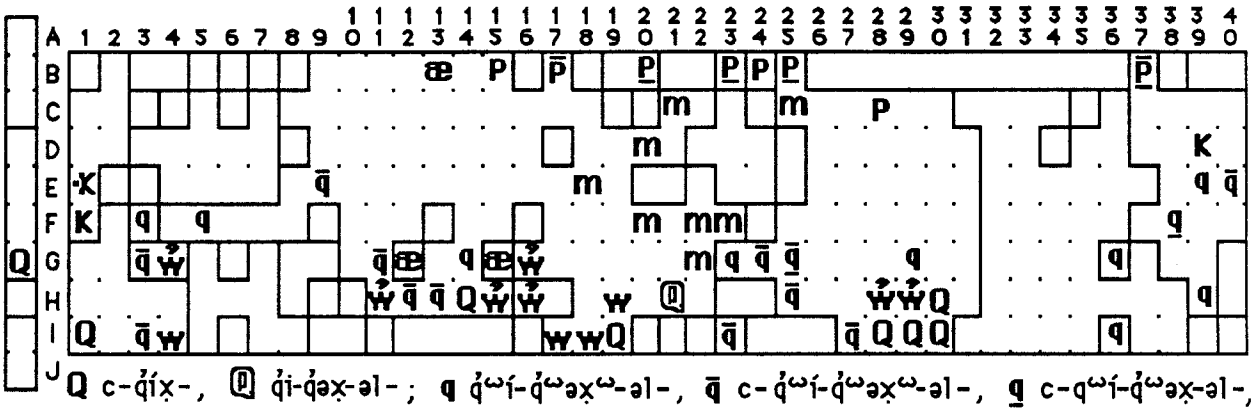
The Chilliwack speaker of Figure 4b (NP) shows the most extensive variety of qualifiers among the six individuals, but she uses unbound forms at only H14, G21, and I22. The profusion of forms obscures patterns among meanings, although the figure shows that some are confined to one or another category-margin; note, for example, the variant of the 'orange' term (**A**). This speaker has been a dedicated teacher of the Halkomelem language in Chehalis schools for 20 years.

The Sumas/Matsqui speaker of Figure 5b (AH) uses qualifiers similarly to the speaker of Figure 2b, although with some distinct forms. In Figure 5a, she focuses a unique 'orange' term at E5, and in Figure 5b she uses the widely shared term **A** at C8 as a modified



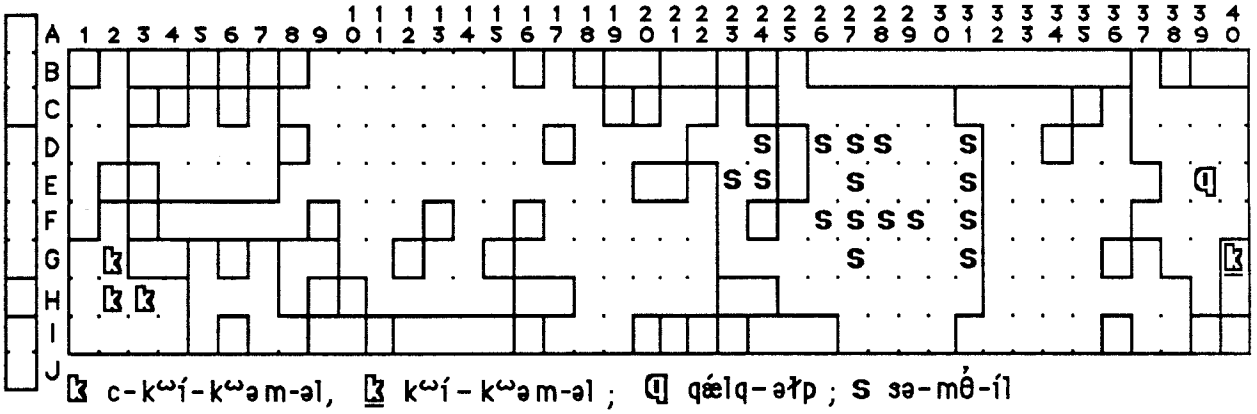
X c-xʷíḵʷ- , X̄ c-xʷíkʷ- , X̲ xʷí-xʷəḵʷ-, X̲· s-xʷí-xʷəḵʷ-, X̲· xʷí-xʷəḵʷ-əl-, X̲· c-xʷí-xʷəḵʷ-əl-; O x̌íx̌əs-əl-, O s-x̌íx̌əs-əl- ; ( ) afterthought

Figure 1b. Unbound preposed color modifiers, Halkomelem, AK as in Figs. 1a,c-d.



Q c-q̓íẋ-, Q̲ q̓i-q̓əẋ-əl- ; q q̓ʷí-q̓ʷəẋʷ-əl-, q̄ c-q̓ʷí-q̓ʷəẋʷ-əl-, q̲ c-qʷí-q̓ʷəẋ-əl-, q̲̄ s-q̓ʷə́-q̓ʷəẋʷ-əl- ; Ẅ c-q̓ʷiẋʷ-, W c-qʷíẋʷ- ; m sə-mθ̓-íl-; æ c-qʷéy- ; P s-pq̓-íl-, P̄ s-pəq̓-íl-, P̲ s-p̓q̓-íl-, P̲̄ s-p̓əq̓-íl-; K kʷíkʷəm-əl-, K̇ s-kʷíkʷəm-əl-

Figure 1c. Unbound preposed color modifiers; Halkomelem, Tait dialect, AK.



k c-kʷí-kʷəm-əl, k̲ kʷí-kʷəm-əl ; q qélq-əɬp ; S sə-mθ̓-íl

Figure 1d. Bound modifiers; Hakomelem, see Figs. 1a-c, AK.

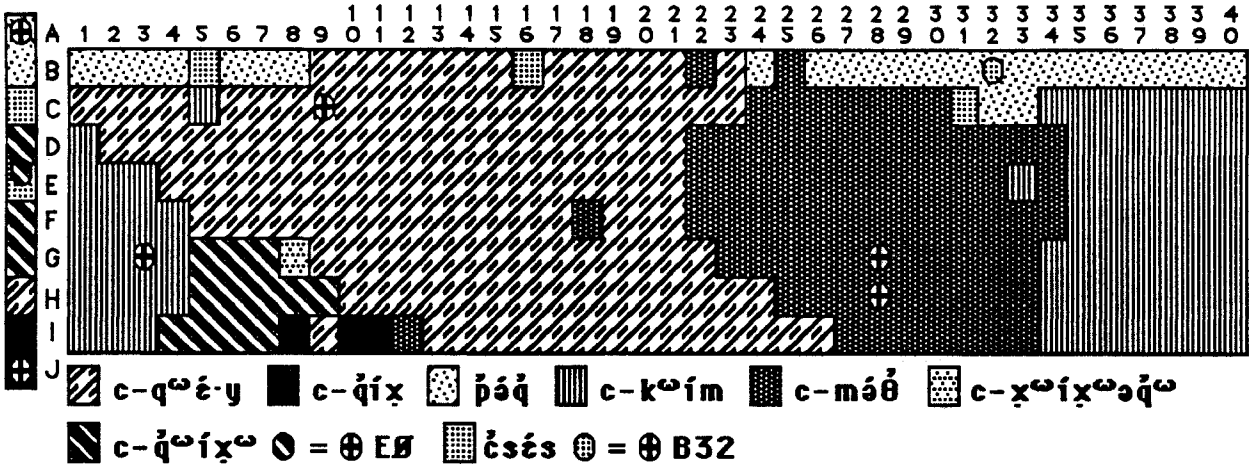


Figure 2a. Halkomelem color-term roots, Tait dialect, speaker TG, age 60±, 1987.

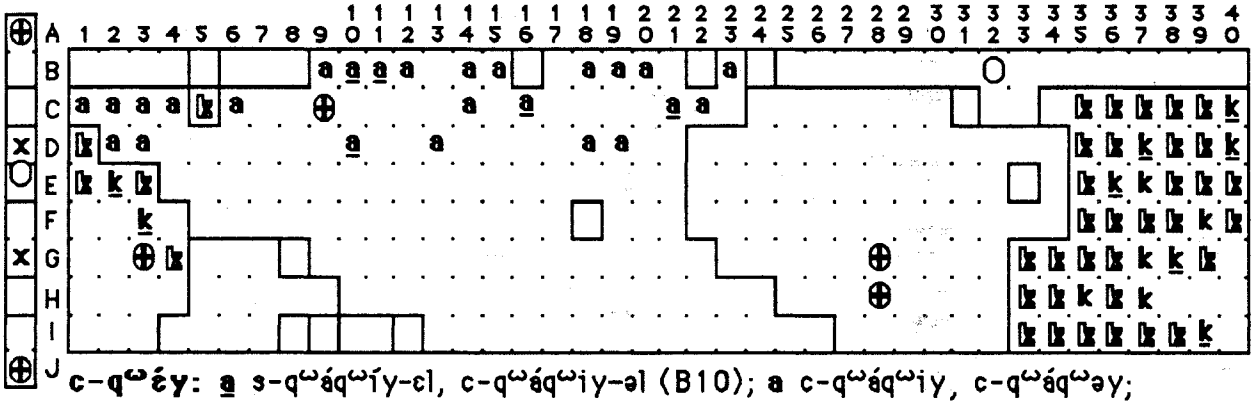


Figure 2b. Bound color-modifiers; Halkomelem, Tait dialect, TG as in Figs. 2a,c.

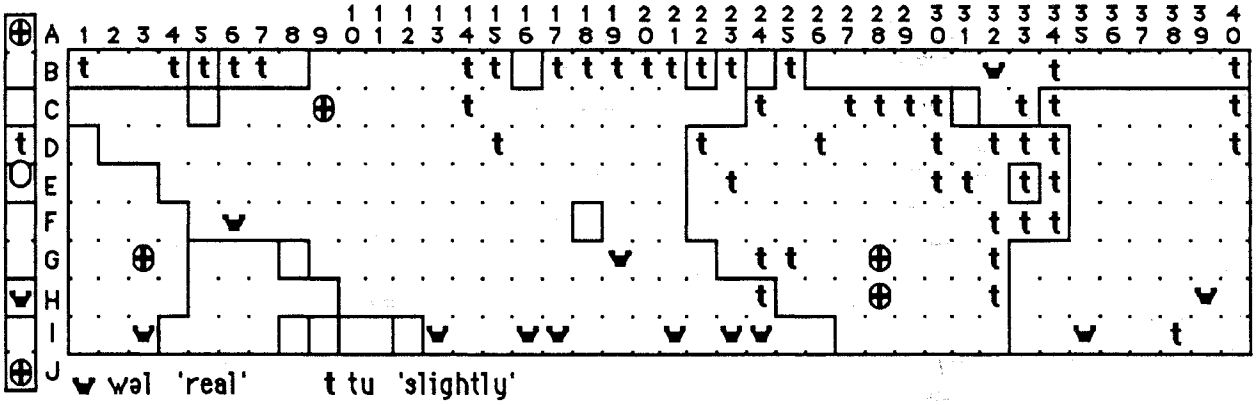


Figure 2c. Unbound preposed color-modifiers; Halkomelem, TG.

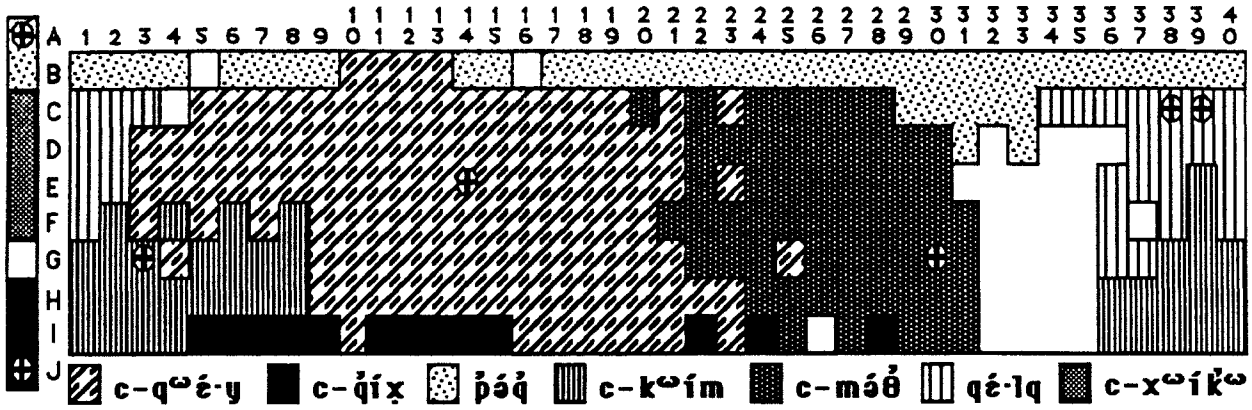
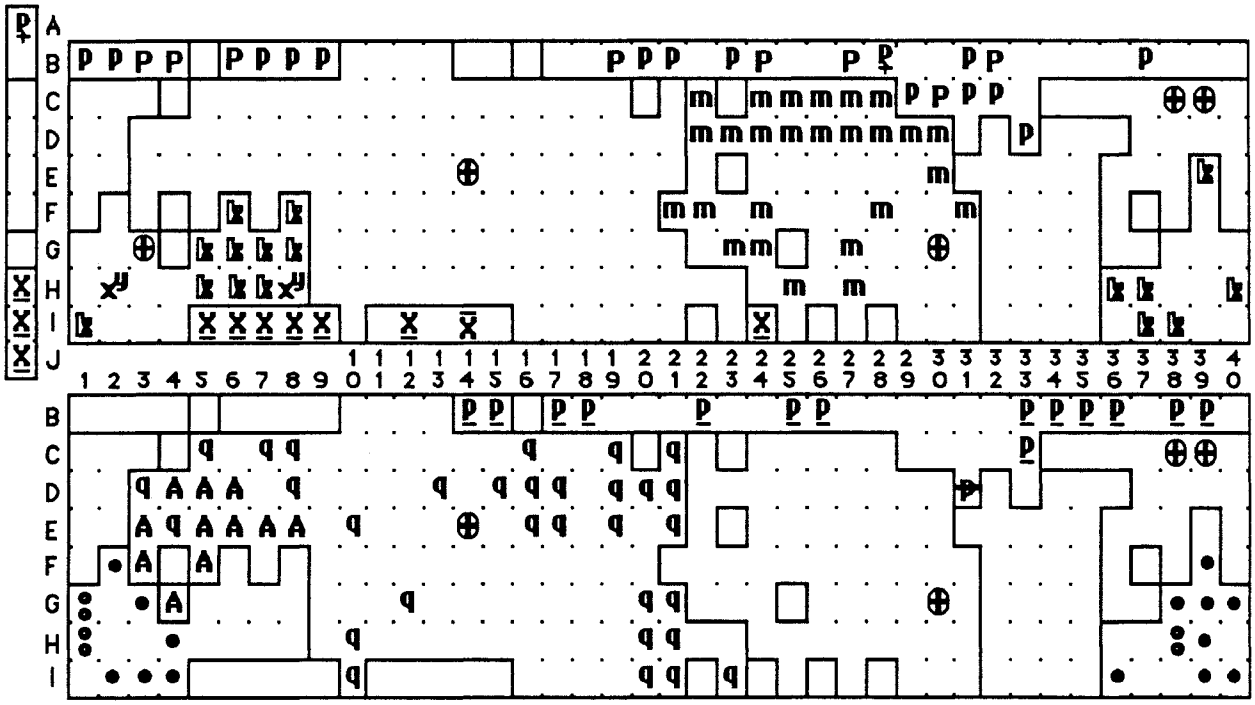


Figure 3a. Halkomelem color-term roots, Chehalis dialect, speaker EB, age 73, 1987.



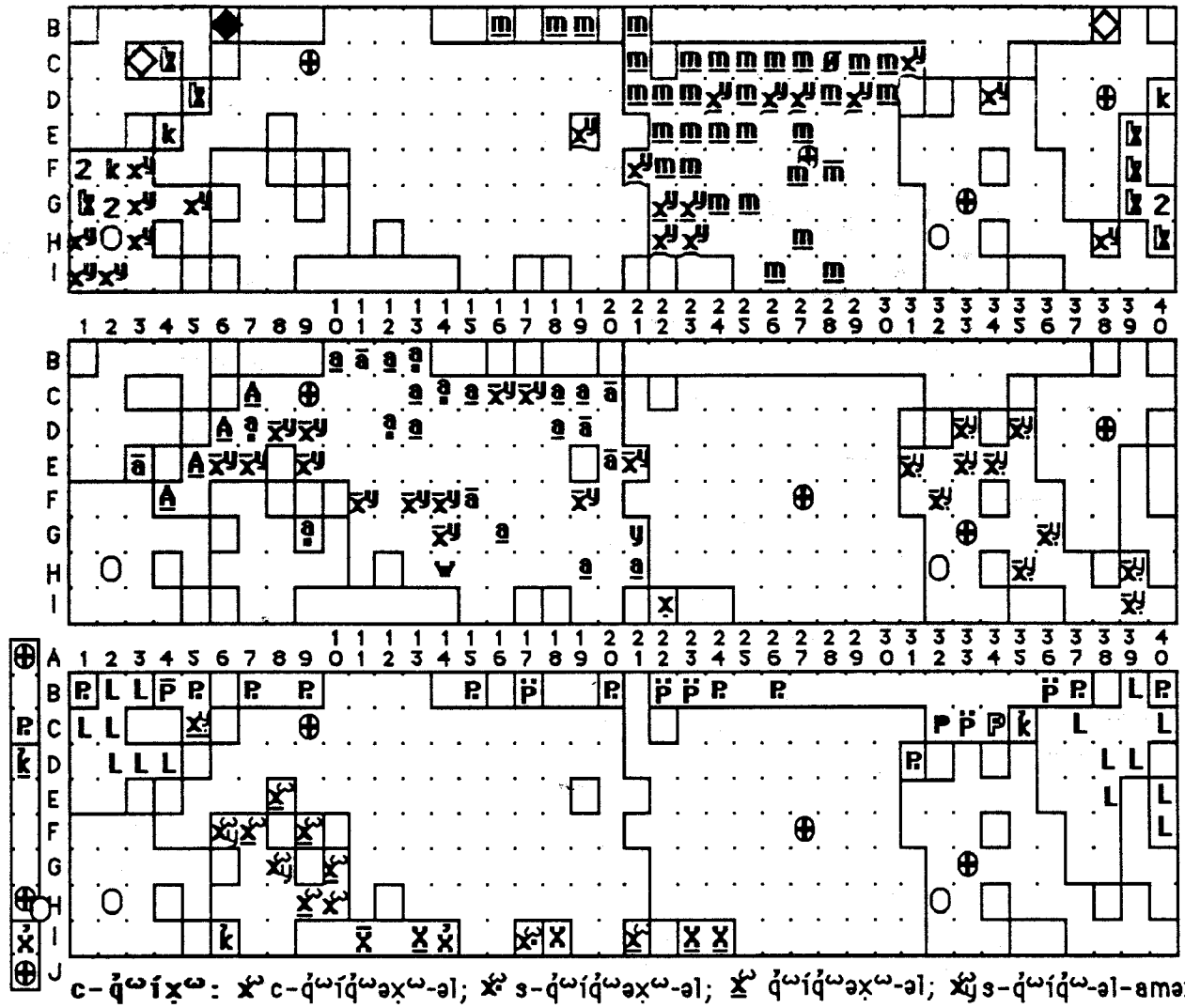
qʷé·y: q c-qʷí-qʷay-əl, c-qʷí-qʷəy-cl, c-qʷí-qʷəy-əl; A qʷi-qʷáy-cls, qʷə-qʷáy-cls;

c-kʷím: k c-kʷíkʷəm-əl; xʸ c-kʷím-aməxʸ; • kʷí·m; ⁘ kʷí:m;

p̓áq̓: P p̓í-p̓əq̓; p p̓é-p̓əq̓-əl; p̲ p̓í-p̓əq̓-əl; p̲ p̓q̓-əlqəl; ⊩ c-p̓í-p̓əq̓-əl;

c-máθ̓: m c-mí-məθ̓; **c-q̓íx̣:** x̲ q̓íq̓əx̣-əl; x̄ c-q̓íq̓əx̣-əl

Figure 3b. Bound color-modifiers; Halkomelem, Chehalis dialect, EB as in Fig. 3a.



c-q̓ʷíx̣ʷ: x̲ʷ c-q̓ʷíq̓ʷəx̣ʷ-əl; x̲ʷ s-q̓ʷíq̓ʷəx̣ʷ-əl; x̲ʷ q̓ʷíq̓ʷəx̣ʷ-əl; x̲ʸ s-q̓ʷíq̓ʷ-əl-aməxʸ

c-qʷé·y: a̲ s-qʷáqʷiy-əl; A̲ qʷiqʷáy-áls; x̄ʸ c-qʷéy-àməxʸ; ā c-qʷáqʷiy-əl; a̲ qʷáqʷiy-əl; y ʔiyá-máxʸ c-qʷé·y; w wəl c-qʷé·y; x̣ c-q̓íq̓əx̣-əl c-qʷé·y

c-məθ̓: m̲ c-məθ̓-í·l; m̄ s-məθ̓-í·l; ɱ məθ̓-i·l; x̲ʸ c-máθ̓-àməxʸ | **st̓éwəl:** x̄ʸ st̓éwəl-àməxʸ;

c-kʷím: k s-kʷíkʷəm-əl; k̄ c-kʷíkʷəm-əl; xʸ c-kʷím-aməxʸ; ◆ s-kʷəkʷíkʷəm-əl;

◇ c-kʷəkʷíkʷəm-əl; 2 kʷíkʷəm-əl | **c-q̓íx̣:** x̲ q̓íq̓əx̣-əl; x̄ c-q̓íq̓əx̣-əl; X s-q̓íq̓əx̣-əl; x̌ c̓-q̓íx̣

p̓áq̓: P̄ s-p̓əq̓-i·l; P̄ s-p̓q̓-é·l; P c-p̓q̓-é·l; P s-p̓q̓-í·l; P̈ p̓q̓-í·l; x̲ʸ p̓əq̓-àməxʸ;

c-xʷík̓ʷ: k̄ xʷíxʷək̓ʷ; k̲ c-xʷik̓ʷ-aməxʸ | **qélq:** L qélq-aməxʸ;

Figure 4b. Color modifiers; Halkomelem, Chilliwack dialect, NP as in Fig. 4a.

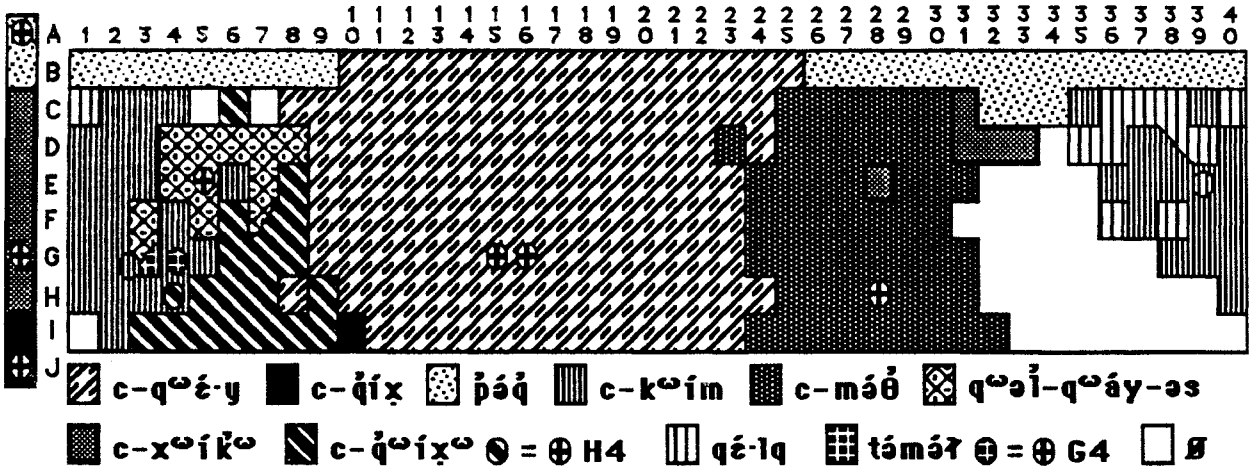


Figure 5. Halkomelem color-term roots, Sumas dialect, speaker AH, age 80, 1987.

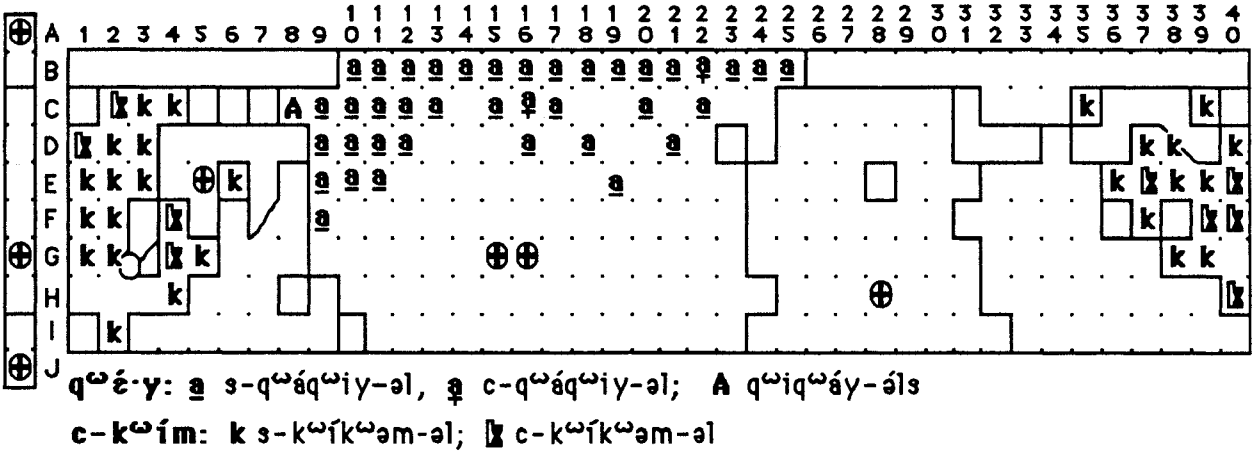


Figure 5b. Bound color-modifiers; Halkomelem, Sumas dialect, AH as in Fig. 5a.

form to denote 'bright yellow' (cf. Figure Ød).

A closer look at Tait speaker AK's system of binomial color terms shows that the color terms which modify always precede the color term being modified. The second term (being modified) is the plain color term, usually with /c-/ as its only affixed modifier; only one more-modified term occurs there too, /səmθ'íl/ //s-hə-məθ'-íl// (with s- 'stative', hə- 'continuative', and inceptive -íl 'come, go, get, become'). The preceding terms used include all the terms expressing the more general light or dark colors (cxʷíkʷ 'gray', cq'íχ 'black', cq'ʷíχʷ 'brown', sX'íX'əsəl 'dark (of old clothes, complexions)', and p'éq' 'white') and their derivatives. These terms when preceding other color terms were often independently translated in those contexts as 'light' or 'dark'. A few other terms were given preceding other color terms but only preceding one example in each case, and so appear to be exceptions.

The following combinations were given by AK:

cxʷíkʷ (ckʷím, sc'álɛ, cqʷéy, qélq, səmθ'íl, cméθ')
 (once glossed 'light' before cqʷéy)
 cxʷíxʷəkʷ (qélq, cqʷéy, cméθ')
 xʷíxʷəkʷ (cqʷéy, cqʷé·y, cméθ', qʷiqʷáyéls)
 sxʷíxʷəkʷ cqʷéy
 cxʷíxʷəkʷəl (cméθ', cq'ʷíχʷ "like dark brown")
 xʷíxʷəkʷəl (sc'álɛ, qélq, cqʷéy)
cq'íχ (cméθ', ckʷím, cqʷéy)
 q'íq'əχəl cqʷéy
cq'ʷíχʷ (cqʷéy "dark yellow", qʷiqʷáyéls, cméθ', ckʷím, sc'álɛ)
 once by itself translated "brown"
 cq'ʷíq'ʷəχʷəl (qélq "dark dark ...", cméθ', cqʷéy, qʷiqʷáyéls)
 q'ʷíq'ʷəχʷəl (qélq once "dark rose", cméθ', cqʷéy, ckʷím)
 sq'ʷéq'ʷəχʷəl cméθ'
cqʷéy sc'álɛ
 sqʷáqiyəl sc'áɬɛ
sX'íX'əsəl (qélq, ckʷím, cméθ', cqʷéy, ckʷím "really dark ...",
 cq'ʷíχʷ, qʷiqʷáyéls, sc'álɛ)
 X'íX'əsəl (cqʷéy once "two times cqʷéy")
 sX'íX'əs(əl) cqʷéy
st'əwókʷ (p'éq')
səmθ'íl cqʷéy
sc'áɬɛ cqʷéy
p'éq' st'əwókʷ
 sp(ə)q'íl (cqʷéy, cméθ', cxʷíkʷ)
 sp'q'íl ~ sp'əq'íl (cqʷéy, qélq, cméθ')
kʷíkʷəməl qélq
 skʷíkʷəməl qélq.

The Chilliwack speaker, NP, also used one of these binomial expressions, /c-q'íq'əχ-əl c-qʷé·y/, following the same patterns.

Of the preposed adverbs used by TG (Fig. 2c) /wəl/ 'real' is used to distinguish very dark shades, except for /p'éq'/ where it points out

the focus; /tu/ 'slightly, a little' is used to distinguish lighter shades and shades between colors other than black or white. Both adverbs are also used with non-color term adjectives and adverbs. NP, the Chilliwack speaker (fig. 4a), also uses /wəl/ once, with /cqʷé·y/, and she too uses it for a dark shade of the color.

The affixed qualifiers include: 1. /c-/ 'have, get', 2. /s-/ 'stative', 3. //-R^1-// or /-C_1ə-/ (infixed after V^1) 'continuative' (the same infix can also mean 'resultative' but apparently does not with color terms--none of the terms so modified are focal, have achieved the result of the color change, i.e., the focus or the central areas of the least modified term), //-R^1-// often follows 4. //-Aá-// (á-ablaut on preceding ɛ) which here doesn't seem to add any meaning (-AáR^1- often functions as a single 'continuative' inflection for verbs with root /é/), 5. inceptive /-əl - -íl/ 'come, go, become, get' often meaning 'turn (become)' or '-ish' with colors, 6. //R^4-// or /C_1í-/ 'diminutive' (all verbs which are diminutivized are also semantically continuative), 6. //R^7-// or /C_1é-/ 'comparative or emphatic, (sometimes) continuative', 7. /-áməxʸ/ 'in looks, -looking, in appearance, in color', 8. //R^5-// or /C_1ə-/ 'diminutive'. A grammar of Upriver Halkomelem (Galloway 1977) describes these affixes and types of reduplication in detail.

Infixes can be shown enclosed in square brackets within a word. Metathesis of several types can also occur as a derivational process (-M^2- exchanges the vowel it follows with the preceding vowel). -M^2- only has a general 'derivational' meaning with the one color term that uses it, //R^4-qʷɛ́y=á[-M^2-]ls// /qʷiqʷáyɛ́ls/ 'orange', literally "little yellow/green fruit", used for both the color and the fruit. Since /-áls/ means 'fruit, spherical objects, rocks' it seems clear that the name for the fruit preceded the color.

These affixed qualifiers have several functions in specifying the nuances of color in Upriver Halkomelem. Except for /p̓éq̓/ 'white', color term roots cannot occur without either a prefix or a suffix. Some have both and infixes and ablaut as well. The simplest affixed forms have /c-/ added to the root alone. These specify the unequivocal areas of each color term, usually including the foci. It turns out that /c-/, used with further derived color terms, particularly inceptives, may contrast with /s-/ and with unprefixed forms in very subtle ways. More about these later.

Fig. 2b (Tait speaker TG) shows the additional effect of infixed reduplication, -R^1- 'continuative' on /c-/ plus root (/c-qʷá[-qʷə-]y, c-kʷí[-kʷ-]əm, c-q̓ʷí[-q̓ʷə-]χʷ/). The other speakers do not use this strategy (though NP uses /xʷí[-xʷə-]kʷ/ and /s-p̓í[-p̓ə-]q̓ʷ-əl/ and /p̓íp̓əχʷ-əl, s-p̓íp̓əχʷ-əl/, and AH uses /s-X̓íX̓əs/; these may be 'continuatives' but do not have /c-/). The literal meaning is something like "having/getting/being in a state of [yellow, red, brown]". The clearest idea of its function without other affixes can be seen in the black/gray/white column to the left of the row letters in Fig. 2b, where GØ shows it can be a darker shade

and DØ shows that preceded by /tu/ it can be a lighter shade of gray (TG also uses this root for brown; the other speakers use the root for brown and label the gray in column Ø with forms from /xʷíkʷ/.) In the same chart, **a** in squares without t in Fig. 2c (for ex. C1-4, C6, B9, B12, C22, D2, D3, D13, D18-19) show that the form can label shades lighter, darker, more pink, or more blue than the focus at C9 (i.e., above, below, left, or right of the focus). The forms often are used in conjunction with /tu/ 'slightly' to cover the very lightest shades, at the margin of white.

Also on Fig. 2b, /c-kʷím-əl/ shows the effect of the addition of /-əl ~ -í(·)l/ 'inceptive, go, come, get, become, turn, -ish'. This suffix is very widespread among non-color verbs and can be used with color roots without any other affixes. Such forms are extremely rare as labels for colors however, perhaps because they imply a rapid change of color. In our data, inceptives are almost always combined with continuative reduplication, and /c-/ or /s-/. This in effect slows down the action of change so it can be modified and analyzed. This is line with the syntactic functioning of color terms as well, since they are adjectival verbs. They can precede nominals (much as adjectives do in English) but they can also serve as full intransitive predicates, inflected for subject, tense, aspect, etc. Both inceptive forms with and without continuative occur in Fig. 2b (/c-kʷím-əl, c-kʷí[-kʷə-]m-əl/). Here /c-kʷím-əl/ is further from the focus of /c-kʷím/ than /c-kʷí[-kʷə-]m/ is (**k** is usually closer to the focus at G3 than is **k**). And /c-kʷí[-kʷə-]m-əl/ is usually furthest of all from the focus (literally it means something like "going/coming/getting to have red"). The principal also applies to the derivatives of /c-qʷéy/ in Fig. 2b though not as neatly.

One of the rare cases of inceptive without c-/s- as a color label can be seen in Fig. 4b (Chilliwack speaker NP), with /məθ-í·l/. It only occurs once, among the lightest shades of blue, perhaps caught at the very first inception of change towards blue from white. The more usual form in the chart for such shades is /c-məθ-í·l/ or for other speakers the continuative /səmθí·l/ //s-hə-məθ-í(·)l//. The latter form shows another type of Halkomelem 'continuative', the /hə́- ~ hɛ́-/ prefix, which occurs before a subset of verb roots beginning in resonants (with this set the continuative infix cannot be used). /h/ is lost after another consonant by normal phonological rule. Another case of inceptive as a color label without c- or s- is that of /p̓íp̓əxʷ-əl/ at F8, F10, G6--contrasting with the modified form /s-p̓íp̓əxʷ-əl/ at I5. Clearly the /s-/ provides a meaningful semantic addition and the /s-/ form seems to indicate a deeper type of brown than the tans represented by the unprefixed form. But since we don't have an attestation of the root without reduplication and inceptive, we cannot be sure whether the lighter or darker shade is closer to the focus of the root.

In Fig. 3b (Chehalis speaker EB) we see the 'diminutive' modifier, R^4-, alone with one root and alone except for /c-/ with another. Thus

the forms /p̓í-p̓əq̓/ //C_1í-p̓əq̓// and /c-mí-məθ̓/ //C_1í-məθ̓//. Here with /cmíməθ̓/ the diminutive indicates all the lighter shades of blue but also most of the greenish and lavender margins within blue as well. This extensive coverage is either cause or effect of the fact that the speaker uses no other modifiers with this root--no inceptive, continuative, etc. None of the other Upriver elders we interviewed used diminutives with R^4- as a modifier strategy except with /qʷi-qʷáy-éls/ 'orange' (there it is combined with metathesis and a lexical suffix). In Fig. 3b, /p̓í-p̓əq̓/ and /p̓é-p̓əq̓-əl/ occur almost alternately within the same areas (as shades of white tinged with orange, yellow or blue) and cannot really be distinguished in effect. The second form has R^7- 'comparative or emphatic, (sometimes) continuative' which was not attested in color term words by any of the others we interviewed.

Inceptive forms also occur with diminutives (or vice versa) in Fig. 3b, /c-qʷí-qʷəy-əl, p̓í-p̓əq̓-əl, c-p̓í-p̓əq̓-əl/. The first of these, literally "have/get/be in a state of going a little yellow/green", has vowel reduction to schwa by regular phonological rule following a stressed prefix. This term labels almost all the margins of /c-qʷéy/ (from green's margins with blue, to yellow's margins with orange and pink and white). It also includes some moderately light green close to the focus of /c-qʷé·y/, which, for EB of Chehalis, is green (as it is for AH of Sumas). /p̓íp̓əq̓əl/ is commonest for shades of white tinged with green or pink; /c-p̓í-p̓əq̓-əl/ occurs only once (perhaps since nowhere else does the root /p̓éq̓/ allow the prefix /c-/), as white tinged with lavender or light lavender. Patterns of modifiers of /p̓éq̓/ are difficult to sort out since for our speakers they all occur on one line (line B), with a small dip into row C between columns 31 and 34 (above lavender or mauve).

One other diminutive is attested, using R^5- or C_1ə-. This occurs only in Fig. 4b (Chilliwack speaker NP) and only in forms also inflected with -R^1-. Thus /s-kʷə-kʷí[-kʷə-]m-əl/ and /c-kʷə-kʷí[-kʷə-]m-əl/ are the very very lightest reds (actually more whites tinged with pinks, but not named as varieties of /p̓éq̓/ or /qélq/).

Emphatic lengthening of a root vowel is a meaningful process in Upriver Halkomelem. It can add one mora, two morae, or even more morae, expressing increasingly more emphasis. It is present in Fig. 3b in : /c-kʷí:m/, and possibly in · /c-kʷí·m/. As such it marks especially characteristic shades and, perhaps occasionally, surprise at a newly-glimpsed shade. It is probably not present in variation between /cqʷéy/ and /cqʷé·y/ because that seems to be variation between speaker preferences; a given speaker seems to stick to one or the other.

Also in Fig. 3b are several lexical suffixes, besides /-áls/ 'fruit' in the term for 'orange'. /-álqəl/ 'wool' is part of /p̓q̓-álqəl/ 'mountain goat', a nominal derived from the root 'white'. The term is not really a color term. Another lexical suffix is more widespread and is a legitimate modifier of color terms,

/-ámáx^{y}/ 'in looks, -looking, in appearance, in color'. It appears in non-color terms like, /ʔiy-ámáx^{y}/ 'good-looking' and /səlcím-əməx^{y}/ 'what color is it?, what does it look like?' (an interrogative verb). Fig. 4b (of Chilliwack speaker NP) shows even more extensive use of the suffix, i.e. with more stems than just /k^{w}ím/, with /s-q̓^{w}í[-q̓^{w}ə-]x̣^{w}-əl-aməx^{y}, c-q^{w}éy-ə̀mə̀x^{y}, c-máθ̓-ə̀mə̀x^{y}, sťéwəl-ə̀mə̀x^{y}, c-k^{w}ím-aməx^{y}, p̓əq̓-ámáx^{y}, c-x^{w}ík̓^{w}-áməx^{y}, qélq-aməx^{y}/. The only color terms it was not attested with are /c-q̓íx̣/ and /c-p̓íq̓^{w}/. In Fig. 4b it is shown with varieties of x^{y}, x$_{y}$, k̲, and L. In all cases it occurs both in the central areas of the color term (or modified color term) it is attached to, as well as in the marginal and/or questionable areas of the stem. So it is clear that the affix merely indicates a little hedging or very very slight uncertainty.

Fig. 4b also shows the only attestation of the color term /sťéwəl/ which is approximately 'purple, lavender'. This speaker, NP of Chilliwack, uses the greatest variety of modifiers of any of the speakers, including color terms as modifiers (x̣ on the chart) like Tait speaker AK, adverbs as modifiers (w) like Tait speaker TG (Fig. 2c), diminutives (see diamond symbols on the chart), as well as /-ámáx^{y}/ for hedging, and inceptives, continuatives, and three-way minimal contrasts between forms without prefix and those with /c-/ and /s-/.

/c-/ or /s-/ seems to be used with all the affixed qualified color terms by TG (Tait, Fig. 2b). A similar pattern is shown for EB (Chehalis) in Fig. 3b, except for one root and one stem that we know do not require /c-/: /p̓áq̓/ 'white' and /q^{w}iq^{w}áyéls/ 'orange'. But for EB there are two cases of minimal contrast, forms with /c-/ vs. without (/p̓í-p̓əq̓-əl/ with diminutive R^{4}- vs. /c-p̓í-p̓əq̓-əl/, and /q̓í[-q̓ə-]x̣-əl/ with continuative -R^{1}- vs. /c-q̓í[-q̓ə-]x̣-əl/). The /c-/ forms may be a little more intense, deeper in the color, than the forms without. This would fit with the literal meanings for each set ("going a little white" vs. "have/get/be in a state of going a little white", "going a little black" vs. "have/get/be in a state of going a little black"; or if one uses the -ish meaning, "a little whitish" vs. "have/get/be in a state of a little whitish", etc.).

In Fig. 4b (Chilliwack speaker NP), there are quite a few such contrasts, in fact with inceptives based on all the roots but /x^{w}ík̓^{w}/ 'gray', /qélq/ 'rose', and /sťéwəl/ 'purple'. Morphosyntactically we'd expect the forms without /c-/ or /s-/ to be more verbal and the colors to be more in the process of changing (not having reached a state yet). It is hard to tell whether this is the case for the darkest roots, under /c-q̓íx̣/ 'black' and /c-q̓^{w}ix̣^{w}/ 'brown'. And all the inceptives and inceptive continuatives here cover shades on the margins of the basic color terms. But comparing ā and a̲ with a, for example, under /c-q^{w}éy/ 'yellow/green' it seems that the latter (without c-) has less intensity (less of the color) than the former (with c-). The same can be said perhaps of the minimal contrast under /c-méθ̓/

'blue' with Ø (without c-) being less intense than m̲ or m̄. The minimal contrasts under /c-kʷim/ 'red' show all three terms (with c-, with s-, and without either) to be equally close to the focus and nearly indistinguishable in intensity; if anything the form without c- or s- is more intense than those with the prefix. With the forms under /p̓əq̓/ 'white', the forms label colors almost identical in intensity and seem to alternate at random on the margins of 'white'. As with other speakers, the forms without /s-/ or /c-/ are used rarely in comparison to the prefixed forms.

Looking at the contrast between the above forms differing only by having stative /s-/ or having /c-/ 'have, get', there may be a further subtle contrast. In Fig. 5b (Sumas speaker AH) there are only prefixed modified forms, no unprefixed contrasts. She has minimal contrasts between forms with /s-/ and with/ c-/. There are only two examples of /c-qʷáqʷiy-əl/, at some distance from each other, but they are surrounded on all sides by examples of /s-qʷáqʷiy-əl/; they do not seem semantically distinct. However there are a number of colors labelled by /c-kʷikʷəm-əl/ and a number by /s-kʷikʷəm-əl/. They are fairly evenly mixed with each other, though the forms with /c-/ are found mostly close to the focus, while the /s-/ forms occur close to the focus but also as the farthest away from the focus (C4, E6, I2, C35, etc.).

In Fig. 4b (Chilliwack speaker NP), the contrasts show:

	/c-/ forms	/s-/ forms
under /c-q̓ʷix̌ʷ/:	more focal	more distant from focus, blackest
under /c-qʷéˑy/:	at intense margins	at light margins or blackest
under /c-méθ̓/:	at light margins, some dark	one ex. next to focus
under /c-kʷim/:	at intense margins	at light margins or near focus
under /c-kʷim/ + R^5-:	more focal	more distant from focus
under /c-q̓ix̌/:	one ex., browner	one ex., bluer, darker?
under /p̓əq̓/:	no ex.	closer to /p̓əq̓/ than non-statives

and in Fig.4c:

under /s-p̓iq̓ʷ/:	at I35, H34, D32 darker or lighter	at F34 but focused at H32, and /s-p̓i[-p̓ə-]q̓ʷ-əl/ at I36

("Intense margins" refers to margins between colors other than white or black.)

In Fig. 3b Chehalis speaker EB has no /s-/ forms to contrast. In Fig. 2b Tait speaker TG has one contrast, /c-qʷáqʷiy-əl/ (one ex.) vs. /s-qʷáqʷiy-əl/. The /c-/ form is more focal than most of the /s-/ forms, but with only one example it does not do more than marginally support previous patterns.

Mappings. A mapping (elicited as described in Table 1, 3.) of any term need not cover all of the colors that the term can name; some individuals exclude colors from a mapping after applying the term to those colors during chip-naming (Table 1, 1.). Yet, when the mappings of separate terms cover the same colors, the mappings show a relation between categories; usually one category is included within the range of the other.

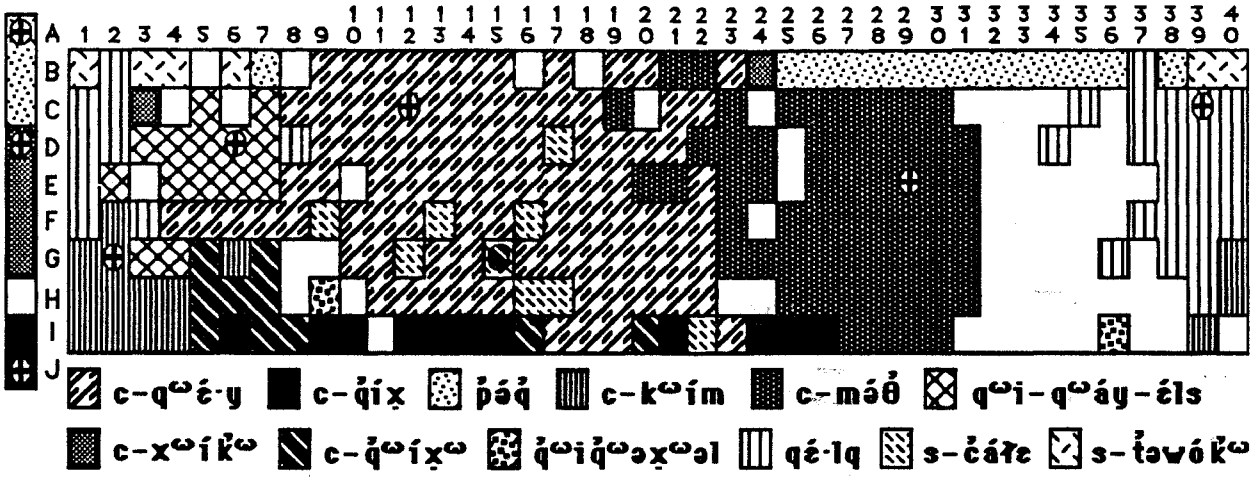


Figure 1a. Halkomelem color-term roots, Tait dialect, speaker AK, age 66, 1987.

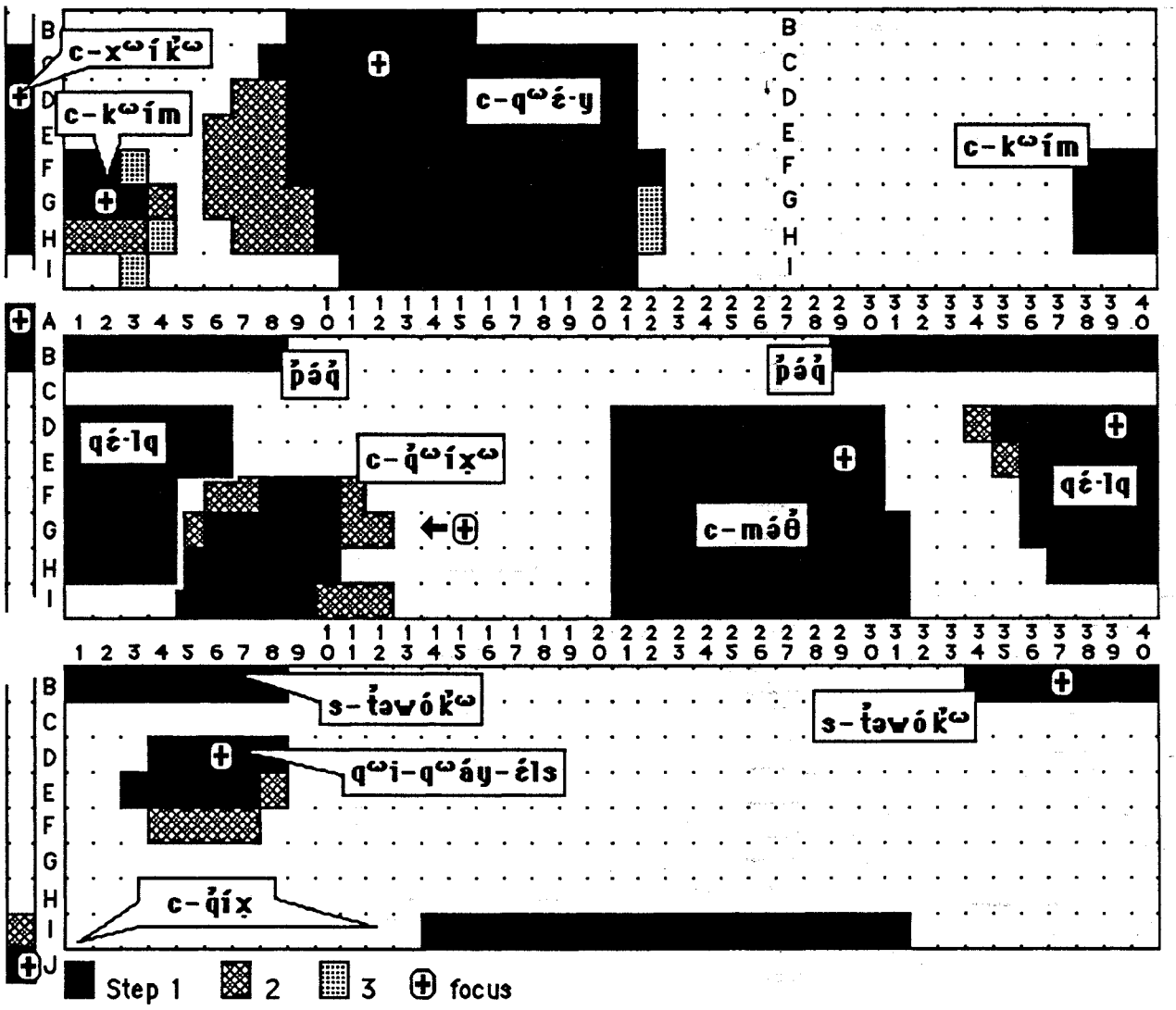


Figure 1e. Mappings of color-term roots, Halkomelem, AK as in Figs. 1a-d.

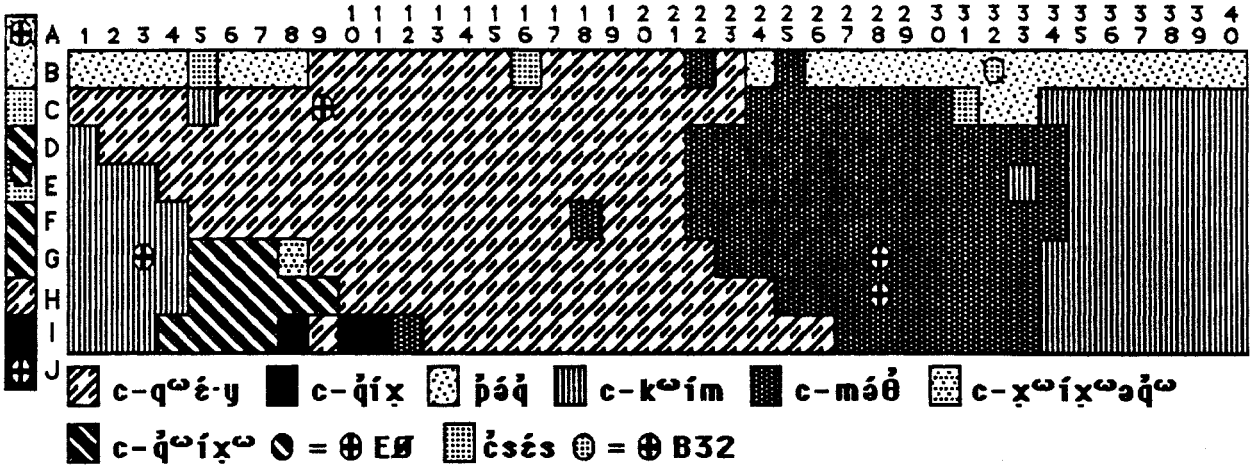


Figure 2a. Halkomelem color-term roots, Tait dialect, speaker TG, age 60±, 1987.

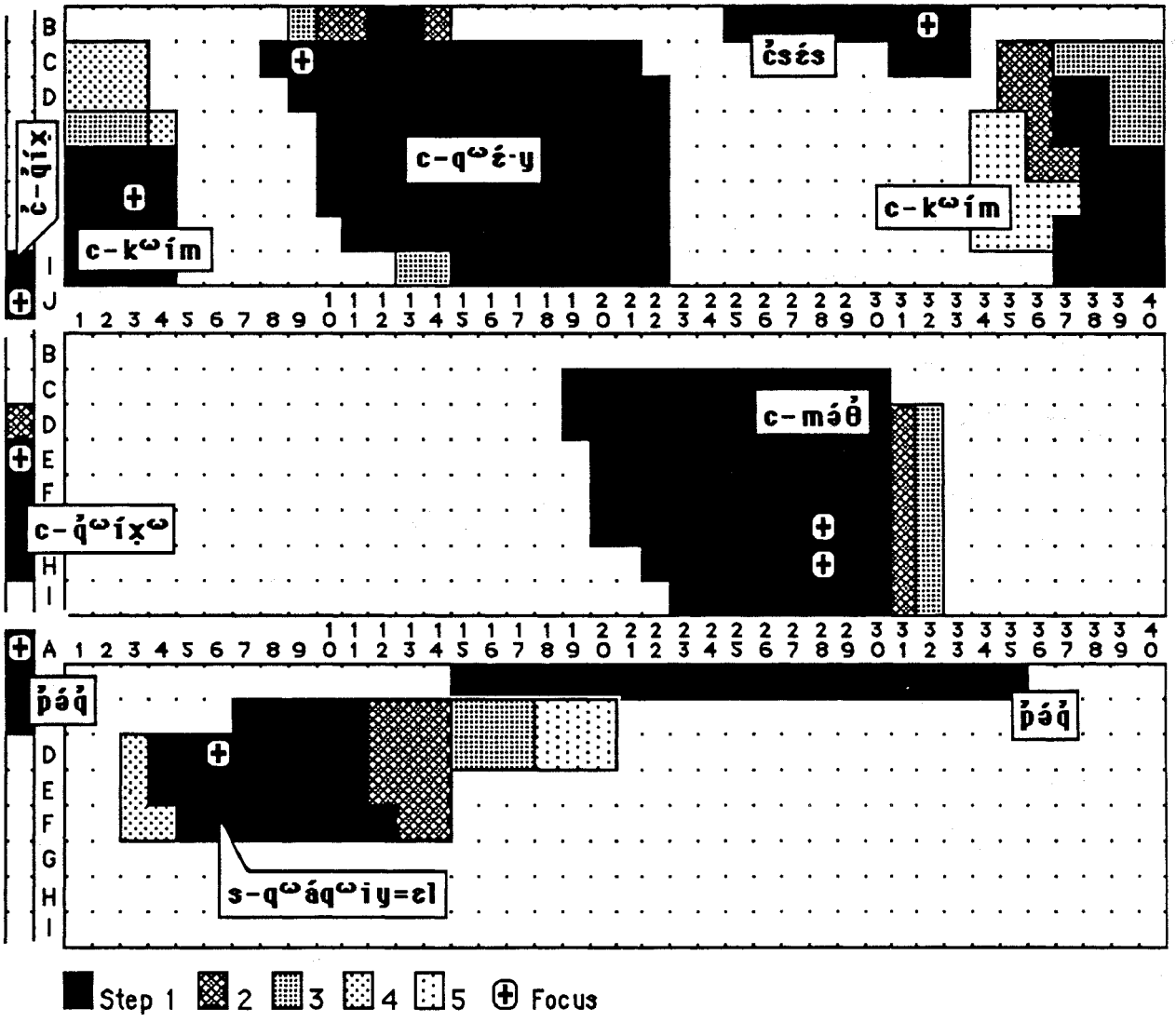


Figure 2d. Mappings of color-term roots; Halkomelem, TG as in Figs. 2a-c.

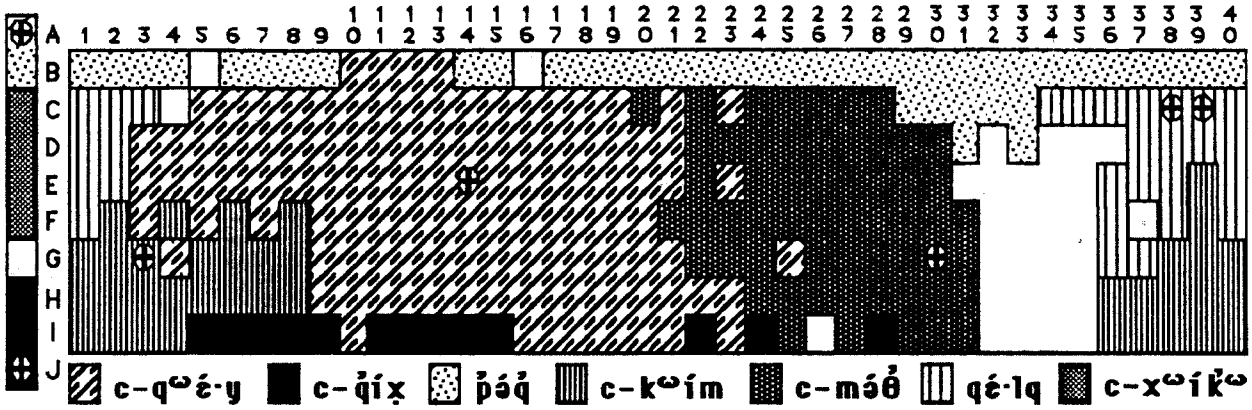


Figure 3a. Halkomelem color-term roots, Chehalis dialect, speaker EB, age 73, 1987.

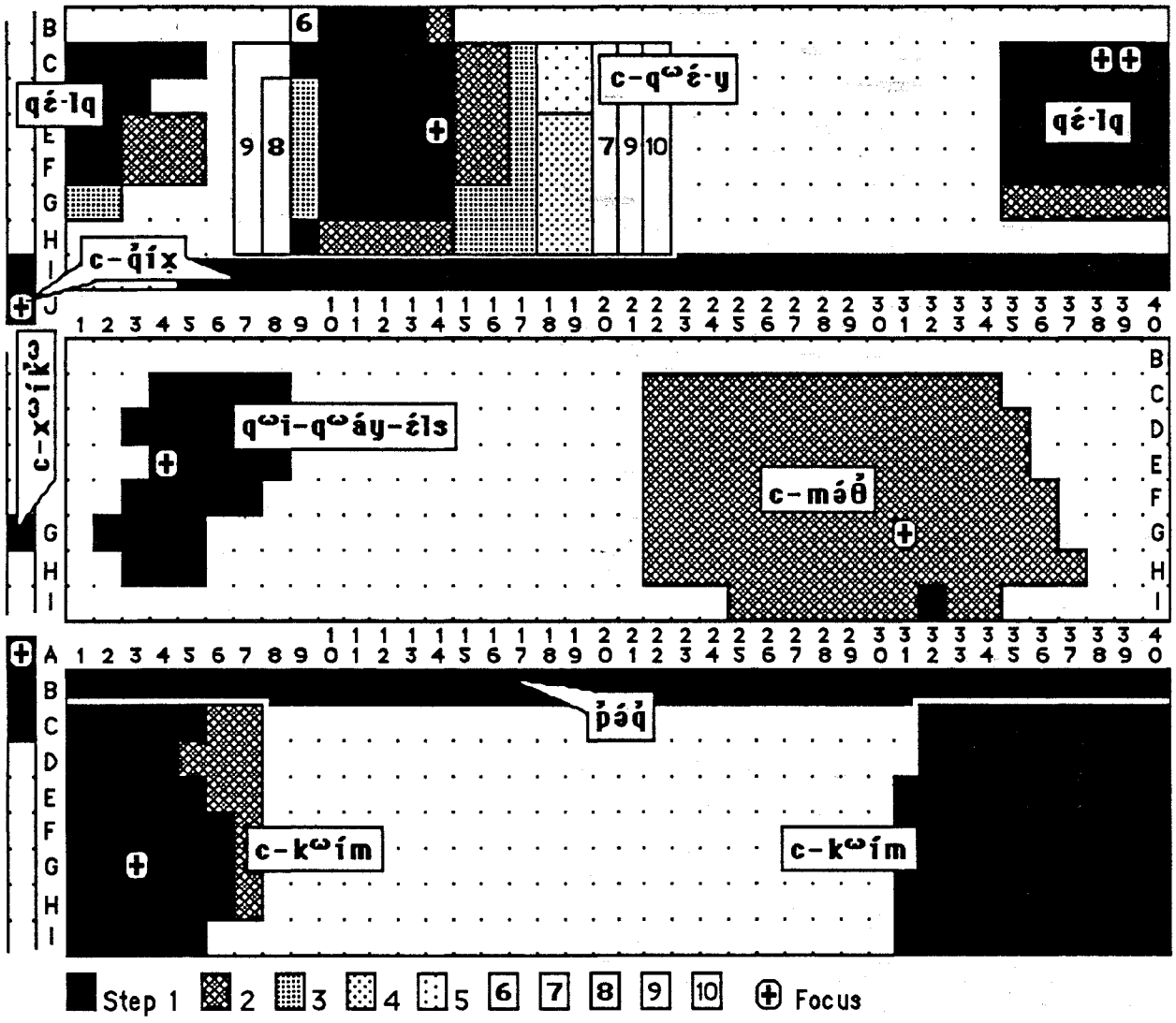


Figure 3c. Color-term Mappings; Halkomelem, EB as in Figs. 3a-b.

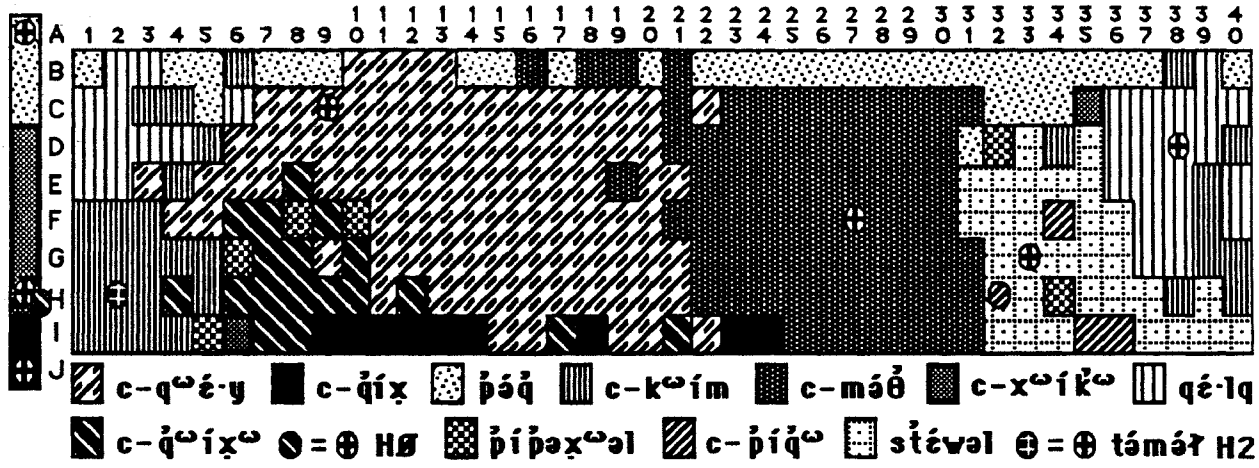


Figure 4a. Halkomelem color-term roots, Chilliwack dialect, speaker NP, age 80, 1987.

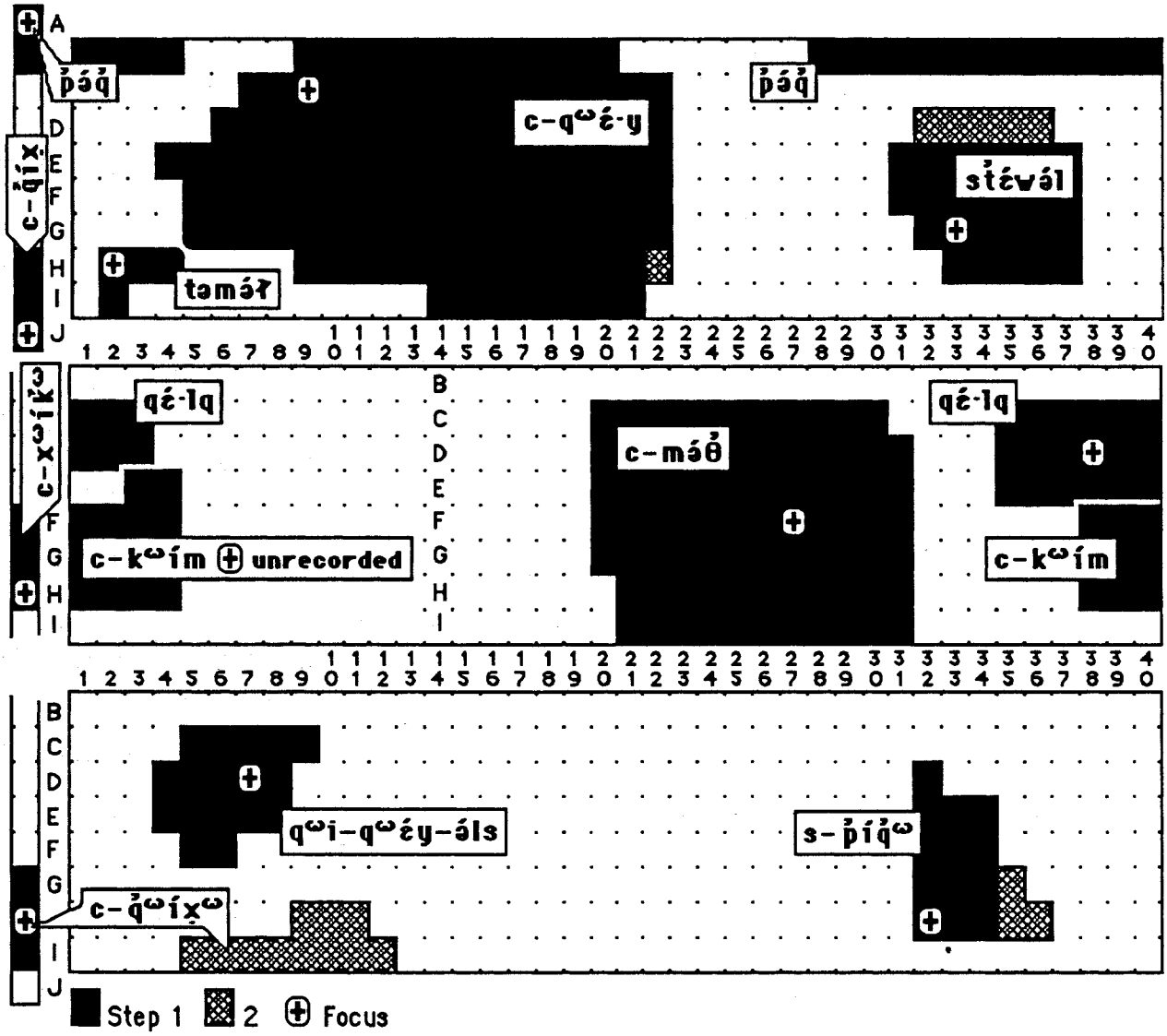


Figure 4c. Color-term mappings; Halkomelem, NP as in Figs. 4a-b.

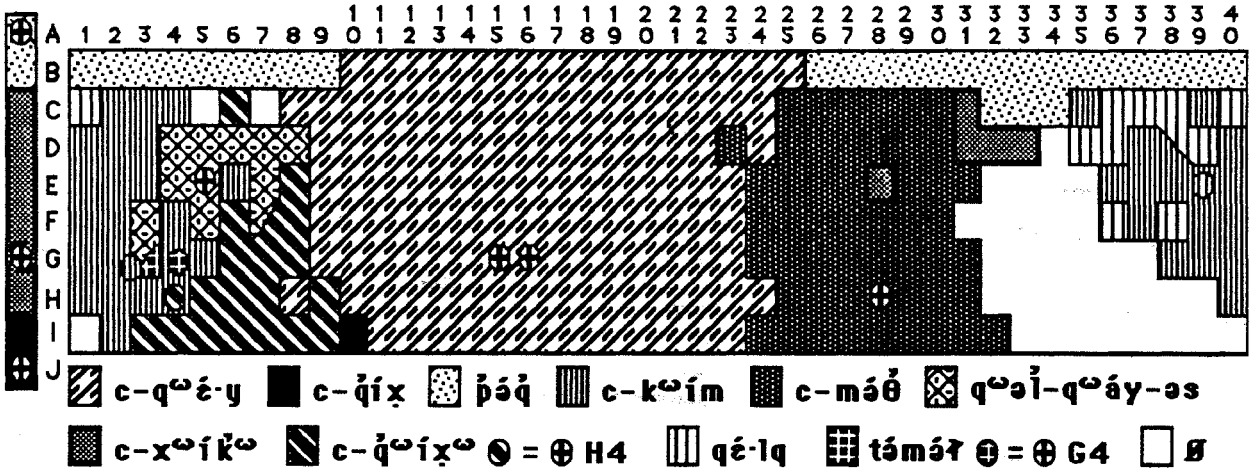


Figure 5. Halkomelem color-term roots, Sumas dialect, speaker AH, age 80, 1987.

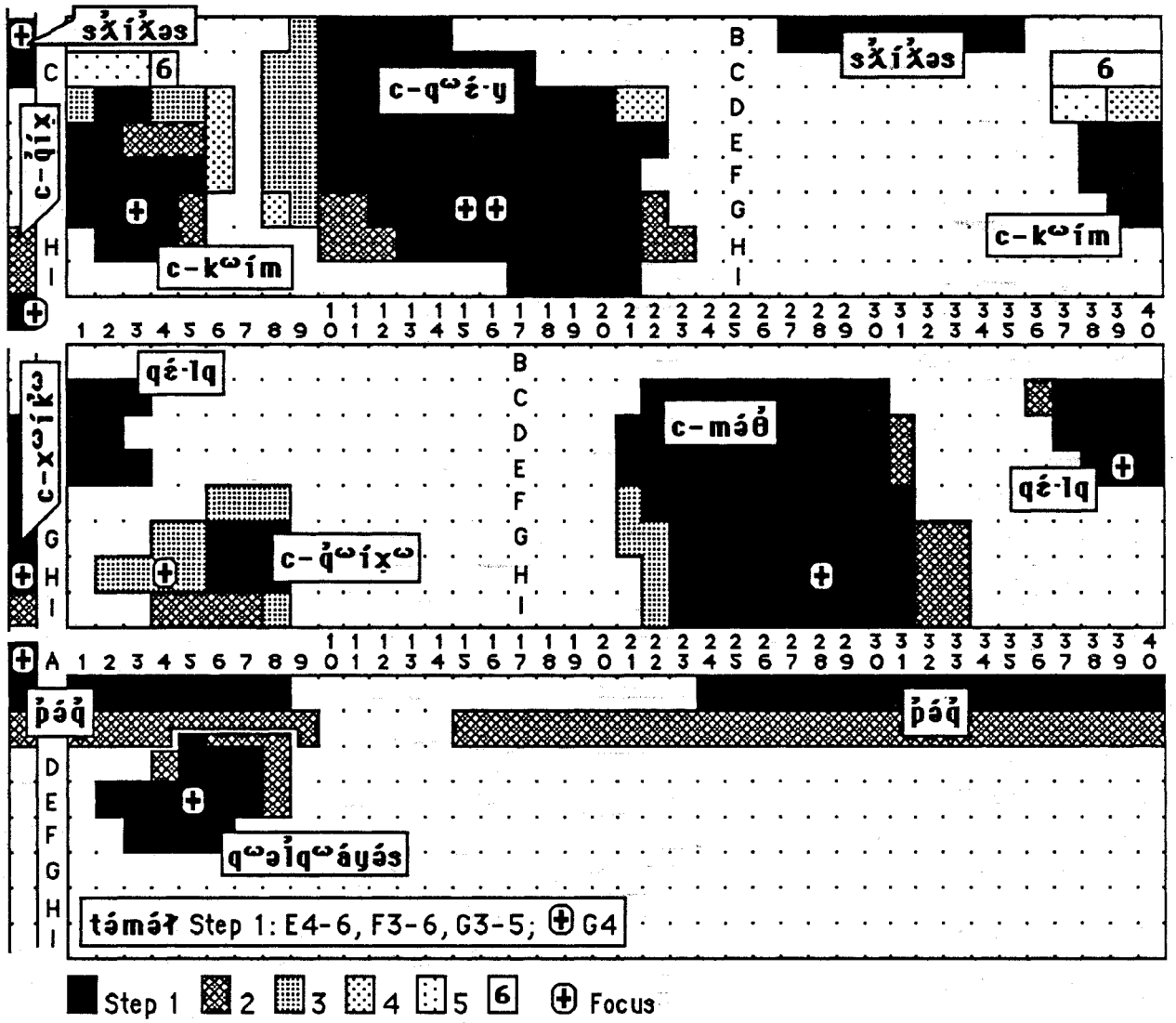


Figure 5c. Color-term mappings; Halkomelem, AH as in Figs. 5a-b.

In Figure 1b, mappings are as would be expected from the naming ranges of Figure 1a. However, the 'pink' term focused at D39 is mapped over the range of the 'red' term, focused at G2, even though the latter is older. The tendency of 'pink' to extend throughout 'red' is widely recurrent in the world's languages (MacLaury MS).

In Figure 2d, the mapping of yellow-with-green, focused at C9, is curtailed at row 8; Figure 2a shows a naming range that is broader that the mapping. Separate mapping of a qualified form--that focused at D6 and represented as **a** in Figure 2b--extends the mapping of the yellow-with-green category.

Figure 3c shows a relation among mappings similar to that seen in Figure 2d; the unmodified root of the yellow-with=-green category is mapped short of its naming range (Figure 3a) and an orange-focused (E4) qualification of the root is mapped on colors left uncovered during mapping of the root alone. Interpretation is further complicated by inclusion of the orange-focused mapping within the mapping of the red-focused (G3) category. The complication results from overlap in orange of the red-focused and the yellow-with-green category. The orange-focused term (**A**) names part of the yellow-with-green category, as shown by the distribution of color modifiers in Figure 3b; the term names members of yellow-with-=green when the colors are thought of as such, even though the red-focused category extends over the same colors.

Figure 4c shows an unequivocal relation of inclusion between the yellow-with-green mapping (focus C9) and the qualified name of orange (focus D7). Two 'purple' terms, G33 and H32, are focused and mapped such as to show slightly different meanings.

Figure 5c shows inclusion of the 'pink' mapping (E39) by the 'red' mapping (G3), the opposite relation of that seen in Figure 1b. The orange-focused term (E5) appears to name an autonomous category, consistent with its naming range in Figure 5a. Although the red-focused mapping covers the 'orange' focus at E5, row 7 shows an area covered only by the orange-focused category. The mapping of a specialized term for bright red, /tə́mə́ɬ/, focused at G4 and named once at G3 (Figure 5a), is described by letter and number in Figure 5c.

Note also that Tait speaker TG uses /c̓sés/ 'ashes' (Fig.2d) to map the same color that Sumas speaker AH maps with /s-x̓íx̓əs/ (Fig. 5c), and others (Chilliwack speaker NP and Tait speaker AK) map largely with /p̓əq̓/. /s-x̓íx̓əs/ then probably could be glossed 'dingy white, off-white' with inceptive form /s-x̓íx̓əs-əl/ elsewhere translated 'dark (old clothes, complexion)'.

SAMISH

The Samish speaker, LD (Figs. 7a, 7b) is truly monolingual. Galloway had to conduct the color test in Samish, and so he had a field session first with both the last two fluent speakers, to elicit the types of questions he needed to ask and possible responses he would need to recognize. Then in another session, he worked alone with

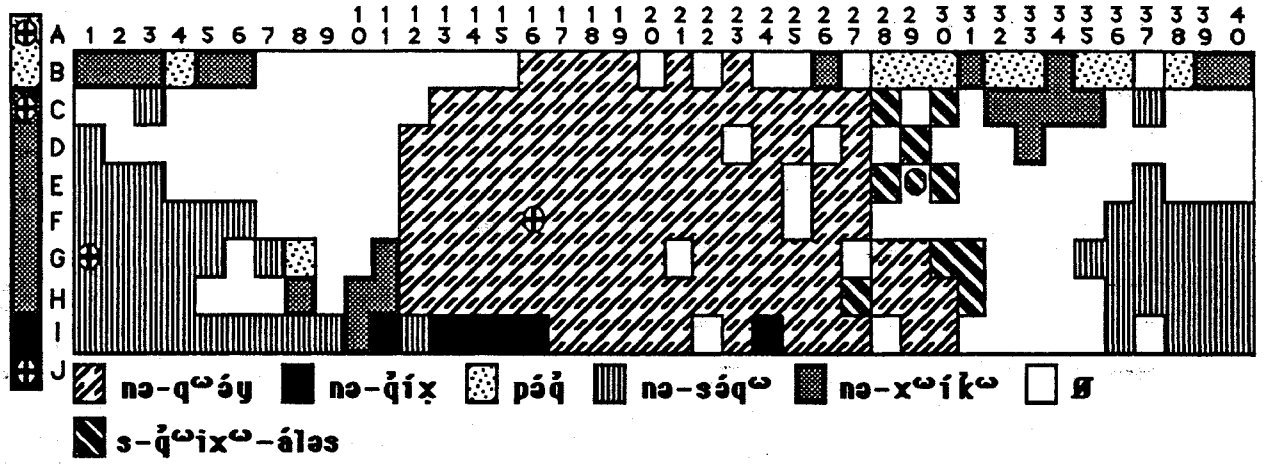


Figure 7a. Samish color-term roots, Northern Straits, Malahat; speaker LD, age 65, 1987.

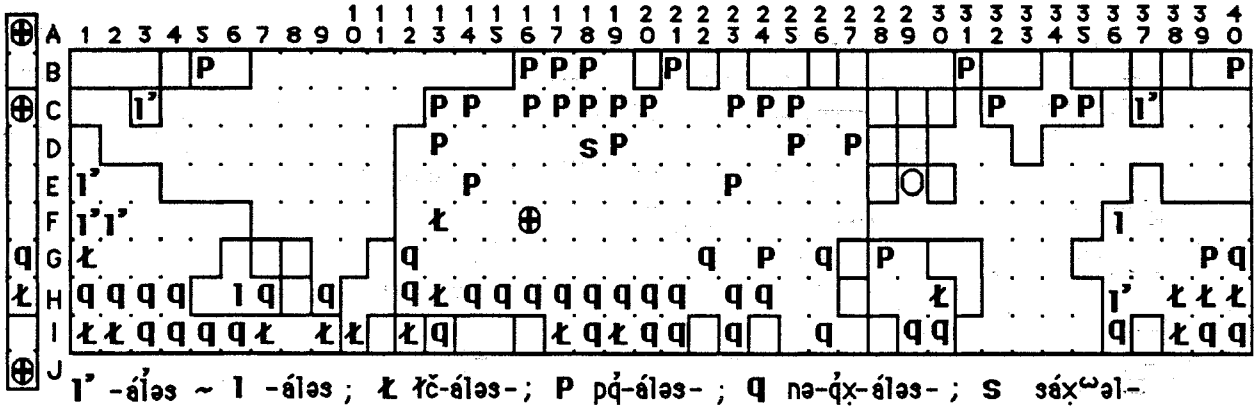


Figure 7b. Color modifiers, all in first position; Samish, LD as in Figs. 7a, c.

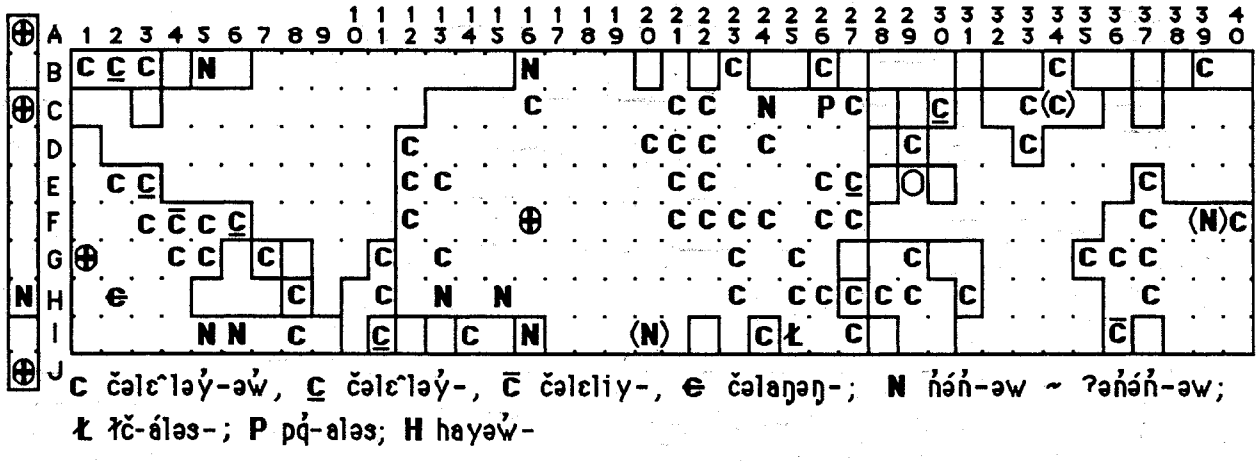


Figure 7c. Color modifiers; Samish, LD as in Figs. 7a-b; forms are in second position at B5, B16, C16, C23, C26, C34, F39, H2, H13, H15, I1, I5, I6, I25, and I36.

LD to do the test. The other speaker was kept apart as he worked productively with Eloise Jelinek on syntactic elicitation.

This year Galloway hopes to try the color test with the other fluent speaker of Samish; unlike LD, he is not monolingual and speaks English and the Saanich dialect of Northern Straits, also fluently. If he turns up a term for yellow or purple, in either dialect, Galloway may redo the test with LD to fill in the colors not named on the first pass through the chips (Galloway did not realize then that subsequent passes to name all the chips were allowed).

In Figure 7a, the Samish speaker names color with roots that are cognate with Halkomelem, except the 'red' term focused at G1. The green-focused term F16 names a green-with-blue category, although it is cognate with Halkomelem 'yellow-with-green.' This datum further reinforces the hypothesis of an original 'green-with-blue' meaning, as suggested in the preceding section. The Samish speaker could recall no word for yellow colors, a condition that would precede extension of the 'green-with-blue' term to 'yellow-with-green'. (A few older speakers of Upriver Halkomelem (AC, some others, interviewed by Galloway some years before) could not remember a distinct term for yellow and spent some time commenting and struggling with that, just as others do now over terms for brown and purple; on the other hand a few Upriver Halkomelem speakers also interviewed some years ago could not pin down a word for green.)

A Samish term, focused at E29, is emerging as a term for 'blue'; it is cognate with the Halkomelem term for 'brown' or 'grey-brown', seen in Figures 1a, 2a, 4a, and 5a. An emergent term in blue would satisfy a second prerequisite for transference of a 'green-with-blue' term to 'yellow-with-green.' As in the Halkomelem data, the Samish data yield no clue of the original 'yellow' term. It is virtually impossible that yellow was always unnamed in either Halkomelem or Samish; 'yellow' might have been named by the red-focused term. Like four of the Halkomelem speakers, the Samish speaker did not name purple.

The modifiers LD used (Fig. 7b) include one suffix (/-áləs ~ -ál̓əs/ 'on the eyes, around the eye, color, in color, looks like, -ish'), some preposed adverbs (/čəlélәy ~ čəlélәy̓/ 'nearly', /čəlélәy-əẇ ~ čəlélәy̓-əẇ/ 'real near' [with -əẇ ~ -əw 'contrastive'], /tu̓w/ //t-ów// 'a little' [with -əw], /ʔən̓ʔén̓-əẇ ~ n̓én̓-əw/ 'very', and /hayəẇ/ //hayí-əẇ// 'quite' [from /hayí/ 'big']), and some preposed adjectives (several themselves modified color terms) (/ʔéy̓/ 'good', /łč-áləs/ 'dark', /pq̓-áləs/ 'light', and /nə-q̓x̌-áləs/ 'blackish').

The color terms attested with the /-áləs/ suffix are /nə-sqʷ-áləs ~ nə-sqʷ-ál̓əs/, /pq̓-áləs/, and /nə-q̓x̌-áləs/. /pq̓áləs/ alone only labelled one chip (B4)(a white with a faint orange tint), but it was flanked on both sides by modified forms of /nə-xʷikʷ/ 'gray'. The shades surrounding /péq̓/ itself (for ex. at B32-33, B28-30) were not labelled with /pq̓áləs/ as one might

expect but again with modified forms of /nə-xʷíkʷ/ or /s-qʷixʷ-áləs/. So /pq̓áləs/ is more of a modifier than a color term itself. The same is true of /nə-qx̣-áləs/, which appears only twice as a color term itself, once as /ʔəm̓ʔém̓əw nəqx̣áləs/ next to I15 plain /nə-q̓íx̣/, and once /m̓ém̓əw nəqx̣áləs/ ~ /nəqx̣áləs nəqʷéy/ at I20 surrounded by shades of modified /nəqʷéy/. /nə-sqʷ-áləs/, on the other hand, occurred only as a color term, never a modifier. It filled in the lighter shades of /nə-séqʷ/ (D1, E1, F1, F2, F36) while /pq̓áləs nə-séqʷ/ was never used at all.

As modifiers, /nəqx̣áləs/ and /łčáləs/ (root /łéč/ 'dark') cover almost identical turf; they often alternate (particularly with the darkest row (I) of reds and blues. However, since one would expect /nəqx̣áləs/ to be darker (since its root means 'black) than /łčáləs/, it is a relief to find that confirmed by cases of the latter at G1 and H38-40, and at F14, all above the modifier /nəqx̣áləs/. So /łčáləs/ is used as well for slighter less dark shades than is /nəqx̣áləs/. /pq̓áləs/ is found expressing the lighter shades of all the color terms.

/ʔəm̓ʔém̓əw/ only occurs in trinomials with /pq̓áləs, łčáləs, or nəqx̣áləs/ as second member; it semantically modifies the second member or shading term. It lightens with /pq̓áləs/ and darkens with the two dark shadings. /čəlélәy ~ čəlélәẏ/ 'nearly' covers the furthest margins (between colors rather margins with white or black), and /čəlélәyəẇ ~ čəlélәẏəẇ/ 'real near' usually covers shades one step closer to the focus than /čəlélәy ~ čəlélәẏ/. Glottalization of resonants here and throughout does **not** seem to be 'continuative' nor 'diminutive' since both 'continuatives' and 'diminutives' are usually marked simultaneously by other morphemes as well, and since there is no pattern of differences between glottalized and non-glottalized modifiers that can be seen on the charts. /hayəẇ/ occurs at E14 only, directly before /nəqʷéy/ and there marks a shade perhaps characteristic of common shades of vegetation or at any rate, of /nəqʷéy/. One word occurs which is a noun rather than a color term, /sáx̣ʷəl/ 'grass' at D18.

NOOKSACK

LG's mapping (Fig.) for four Nooksack color terms was: **/kʷəx̌-kʷíx̌/** E1-E37, F4-5, F3, F2?, F1, F40, F39; red **/č-qʷéy?/** (not /ẏ/) C15?, C14, C13, C12, C11, C10; greenish yellow (modifier) **/č-qʷá[-qʷə-]y?/** B11, B10; light greenish yellow (modifier) **/qʷəy-qʷéy?-il/** C14-C12, D14-12 (glossed as 'light green'). These were not mapping steps by her; we pointed to the squares and she said yes or no to adding a rice grain. The other Nooksack color terms from previous field work (a partial list) are not mappable here but include: /kʷéq̓/ 'white', /q̓əx̣-q̓íx̣/ ~ /č-q̓íx̣/ 'black', /p̓əqʷ-p̓íqʷ/ 'green' (said to be 'dark blue' in Halkomelem, another entry cites the same form as 'yellow'), /č-p̓íqʷ/ 'yellow', /ʔəs-léləc̓/ 'yellow', /xʷəkʷ-xʷíkʷ/ 'grey', /s-kʷíx̌-il/ 'kind of/partly red, pink', and /q̓íx̣-il/ 'kind of black'. These are besides the four above.

/p̓əqʷ-p̓íqʷ/ has a root which is cognate with the one which NP of Chilliwack uses for 'purple' in Upriver Halkomelem /c-p̓íqʷ, s-p̓íqʷ, s-p̓í[-p̓ə-]q̓-əl/.

The modifiers show prefixed /č-/ and 'stative' /s-/, suffixed /-il/ 'inceptive', and infixed /-C_1ə-/ 'diminutive', the last two cognate with affixes in Upriver Halkomelem and Lushootseed. It also raises the possibility that the Upriver Halkomelem form could be considered as 'diminutive' in some cases (though most cases are still clearly 'continuative' and /hə-/ is only 'continuative', never 'diminutive').

The prefixed reduplication, C_1əC_2-, is 'completive/dispositional', apparently aspectual (Galloway 1984b ["Nooksack Reduplication"]:86). Besides the color term words it appears in words such as /qʷəc-qʷíc/ "drownded" (< /qʷíc/ 'drift downstream'), /q̓ʷəl-ʔ-q̓ʷə́lʔ/ 'overcooked', /ʔəl-ʔə́lyæ/ 'dreaming', /kʷəl-ʔ-kʷə́l-iws/ 'murderer' (cf. Upriver Halkomelem cognate with /kʷə́·l/ 'hide' and /-iws/ 'body'), and /qəl-ʔ-qəlʔ-ílʔ/ 'dirty' (Galloway 1984b:86).

LUSHOOTSEED

In Figure 8a, the Lushootseed speaker named all colors, except 'brown' and 'purple'. A 'yellow-with-green' term, focused in green at F17, extends to pure yellow at C8 and to dark greenish blue at H27. Pure blue is in column 29 (cf. Figure Ød). It is important to note that the Lushootseed 'yellow-with-green' term does not name both pure yellow and pure blue, which would violate all expectations based on current physiological knowledge (MacLaury 1987a). For that reason, it is improbable that the original meaning of 'yellow-with-green' cognates encompassed both pure yellow and pure blue. An original 'green-with-blue' meaning is more likely. The Lushootseed category might be in a process of shift, moving away from blue and toward yellow. Colors in the orange and yellow-orange range are named with the red-focused term (G1-2) and with intermixture of terms meaning 'sun' and 'moon', focused at D5 and C9.

The yellow-with-green category is named with two terms, shown in the upper half of the figure; the second is focused at D14. Both are derived from the same root, although it is undetermined whether they are two words or two qualifications of one. Use of separately focused terms that each name all of one category is known as "semantic coextensivity" (MacLaury 1987b). The two terms for 'yellow-with-green' are definitely modifications of the same root. The unvoiced/voiced shift is regular in Lushootseed, and the /x̣ʷi-/ prefix is an allomorph before labialized consonants (before roots /qʷáƛ̓/, /qʷə́q̓ʷ/, and [from Hess and Hilbert n.d., vol.2:79] /q̓ʷíx̣ʷ/ [see below]) of the /x̣i-/ color term prefix. The prefix has the form /x̣i-/ before non-labialized consonants.

Thus /(ʔə)s-qʷáƛ̓-il/ is related to /x̣ʷi-qʷác/ (//x̣i-qʷáƛ̓//) as /ʔəs-bəč̓-íl̓/ is related to /x̣i-bə́č̓/. The relation is cognate with that in Upriver Halkomelem (except for /c-/ instead of /x̣i-/ and the

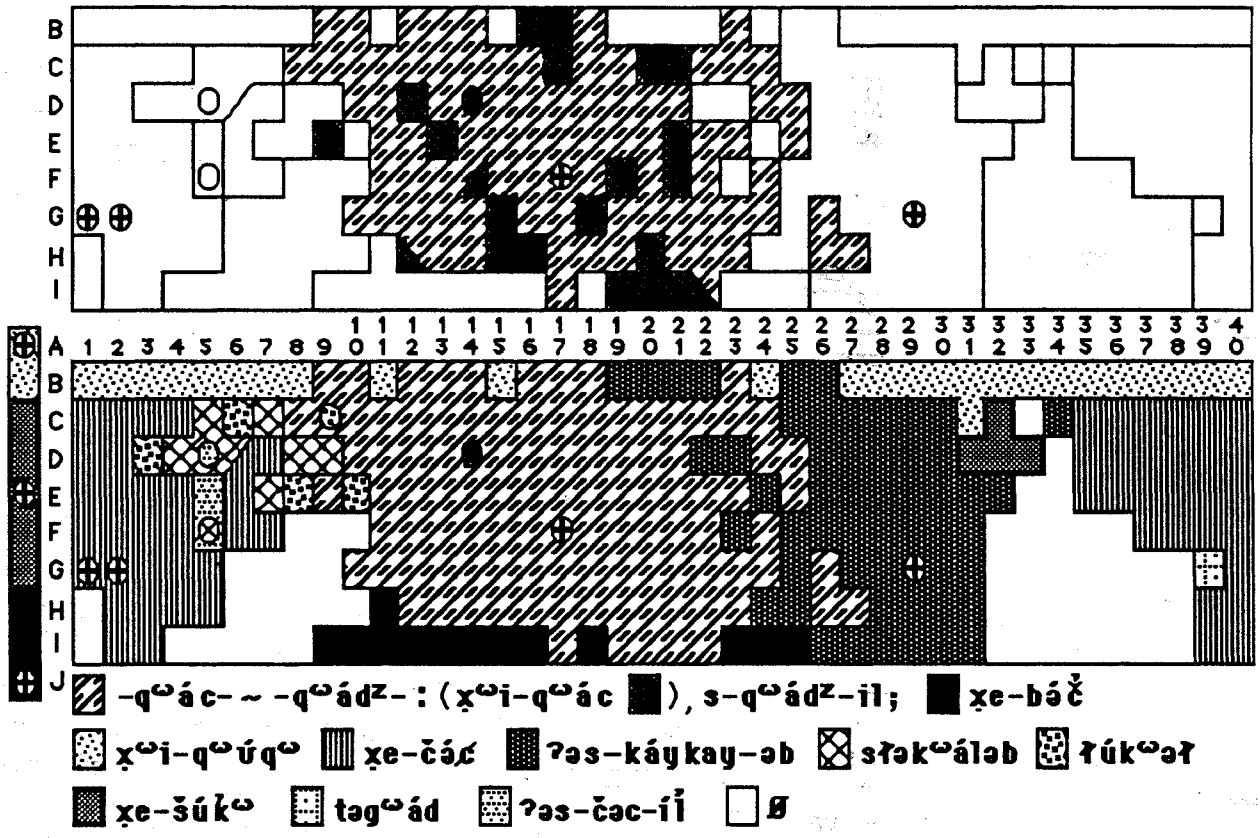


Figure 8a. Lushootseed color-term roots, Skagit dialect, speaker LG, age 94, 1987.

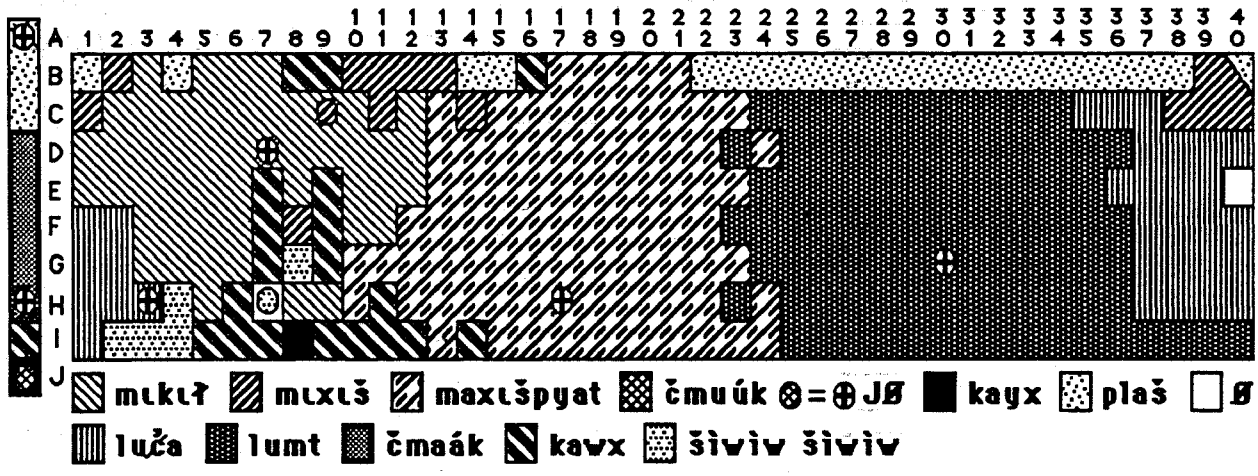
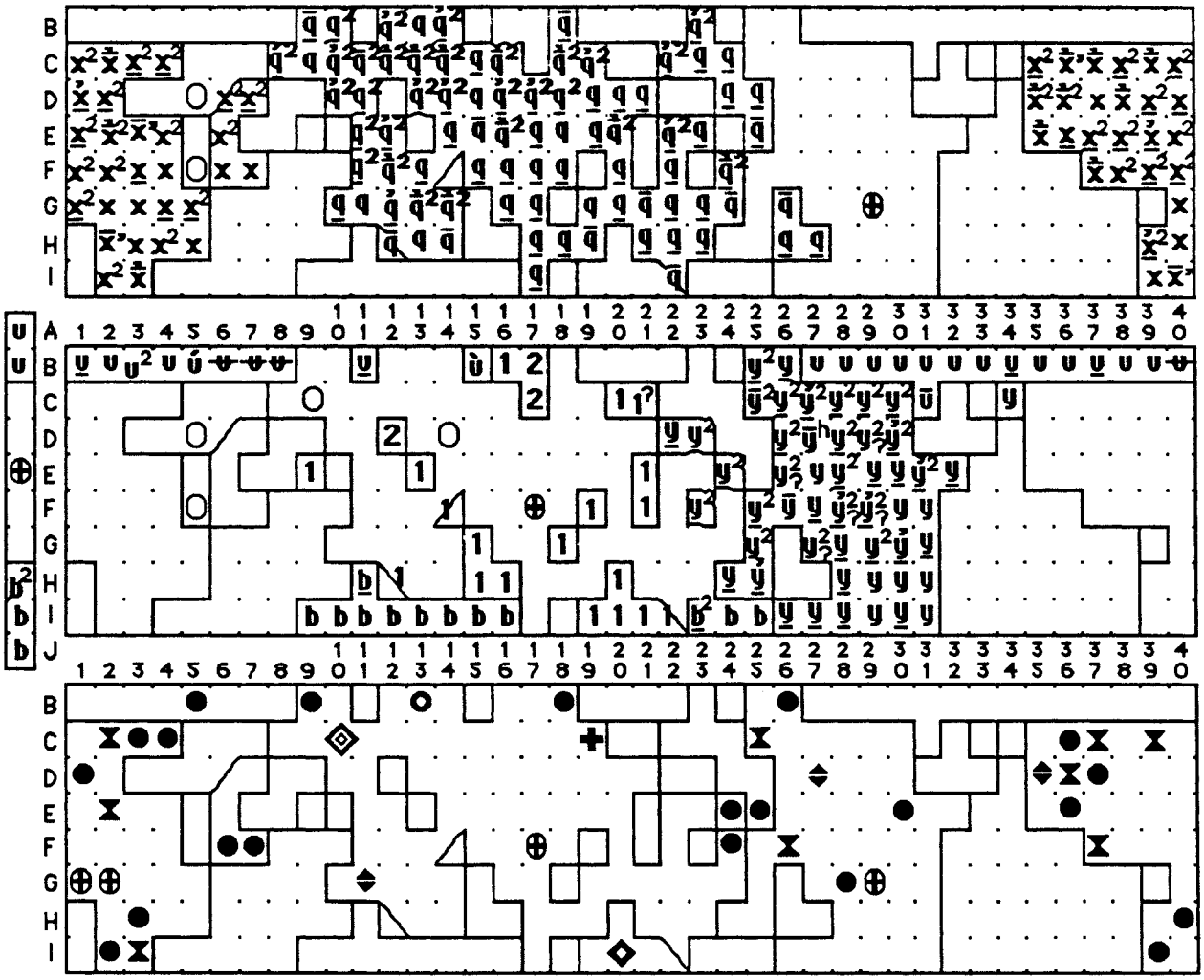


Figure 9. Yakima Color-term roots, Toppenish; woman, age 60, 1987.



s-qʷádᶻ-il: q qʷádᶻ-il; q̲ s-qʷádᶻ-il; q̲̓ s-qʷádᶻ-il̓; q̲̓² qʷáʔqʷədᶻ-il̓; q̲² s-qʷáʔqʷədᶻ-il; q̲̓² s-qʷáʔqʷədᶻ-il̓; q̄ ʔəs-qʷádᶻ-il; q̄² ʔəs-qʷáʔqʷədᶻ-il; q̓̄² ʔəs-qʷáʔqʷədᶻ-il̓; q̲̄ χ̓əlti ʔəs-qʷádᶻ-il; q̲̓̄² χ̓əlti ʔəs-qʷáʔqʷədᶻ-il̓

χ̓ʷi-qʷác: 1 χʷi-qʷác; 1ʔ χʷi-qʷáʔc; 2 χʷi-qʷáqʷc;

χ̓e-čác: x χ̓e-čác; x² χ̓e-či-čc; x̲ ʔəs-čəc-il; x̲̓ ʔəs-čəc-il̓; x̲̓² ʔəs-či-čc-il̓; x̲̓² ʔəs-čiʔ-čc-íl̓; x̄ ʔəs-čc-íl; x̄ʼ ʔəs-čc-íl̓; x̓̄ lə-čc-íl̓; x̓̄² lə-či-čc-il̓; x̓̄ʼ ʔəs-čc̓-il̓;

χ̓ʷi-qʷú-qʷ: u χʷi-qʷú-q̓ʷ; u² χʷə-qʷí-qʷq̓ʷ; u̲ χʷi-qʷí-qʷq̓ʷ; ū χʷ-qʷí-qʷq̓ʷ; u̟ ʔəs-qʷí-qʷq̓ʷ-il; ú χ̓ʔti χʷə-qʷú-q̓ʷ; ù ʔəs-qʷí-qʷq̓ʷ;

χ̓e-bəč: b χ̓e-bác̓; b² χ̓e-bí-b̓č; b̲ ʔəs-bəc̓-íl̓; b̲² ʔəs-bíʔ-bc̓-il̓;

s-káykay-əb: y s-káykay-əb; y ʔəs-káykay-əb; y̓ ʔəs-káy̓kay-əb; ȳ lə-káykay-əb; ȳʰ ləh-káykay-əb; y² s-káy-kiykay-əb; y̲² ʔəs-ká-kiykay-əb; y̲ʔ s-ká-ʔ-kiykay-əb; y̓² ʔəs-káy-kiy̓kay-əb; y̲̓ʔ ʔəs-ká-ʔ-kiy̓kay-əb; ȳ² lə-ká-kiy̓kay̓-əb;

● χ̓əʔti-; ◇ láʔab-; ✚ χ̓ʷi-; ⧗ lə-; ⬍ ləh-; ○ laʔ-; ◈ ləʔ-

Figure 8b. Color modifiers; Lushootseed, Skagit dialect, LG as in Fig. 8a.

added Halkomelem 'continuatives') between /s-qʷá[-qʷə-]y-əl/ and /c-qʷéy/ and between /s-(h)ə-mƟ-íl/ and /c-méƟ/. The roots and statives and inceptives are all cognate. In fact the Lushootseed term /ʔəs-qʷá[-ʔ-qʷə-]ɖ-il/ may be exactly cognate with Upriver Halkomelem /s-qʷɛ[-Aá-qʷə-]y-əl/. The source of the Halkomelem á-ablaut may be an incomplete sound shift, i.e. Proto-Central Salish *á > Upriver Halkomelem *é except before continuative reduplication! Unstressed Proto-Central Salish *i usually > Upriver Halkomelem /ə/ (thus the Upriver allomorphy of -íl ~ -əl). And PCS *y > Lushootseed /ɖ/, Halkomelem /y/ (originally this was only before vowels from PCS but it has spread elsewhere).

Hess does not suggest a meaning for /χi- ~ χʷi-/ in his 1976 dictionary nor do Hess and Hilbert in Lushootseed, An Introduction (n.d. but ca 1983, two vols.), but it seems similar in functions to those of Halkomelem /c-/, Nooksack /č/, and Samish /nə-/ with color terms.

Figure 8b displays the Lushootseed color-qualifier system, among the most complex of the present collection of data. Bound qualifiers are represented by letters, unbound qualifiers by shapes listed at bottom of the key. The system features productive combination of reduplication ('diminutive'), prefixing (for 'stative', 'progressive', and a color term prefix), suffixing (for 'inceptive'), infixing of glottal stop and possibly glottalization of resonants (in the root for blue and in the inceptive suffix). Qualifying affixes are added to a root to designate increasing degrees of lightness and marginality within a category. The most complex qualification characterizes the most marginal designation.

There are two 'diminutive' reduplicative variants: C_1í- with roots /čəc, qʷəqʷ, bəƟ/, as in /χi-čí-čc, ʔəs-čí-čc-iʔ, ʔəs-čí-ʔ-čc-iʔ, lə-čí-čc-iʔ; χʷi-qʷí-qʷqʷ, ʔəs-qʷí-qʷqʷ, ʔəs-qʷí-qʷqʷ-iʔ; χi-bí-bƟ, ʔəs-bí-ʔ-bƟ-iʔ/. -C_1ə- after V_1 with roots /qʷáɖ, káykayəb/, as in /χʷi-qʷá[-qʷ(ə)-]c, qʷá[-ʔ-qʷə-]ɖ-iʔ, ʔəs-qʷá[-ʔ-qʷə-]ɖ-iʔ; (ʔ)əs-ká[-kə-]ykayəb, (ʔə)s-ká[-ʔ-kə-]ykayəb, ʔəs-ká[-kə-]ẏkayəb, ʔəs-ká[-ʔ-kə-]ẏkayəb, lə-ká[-kə-]ẏkaẏəb/.

The infixed /-ʔ-/ according to Vi Hilbert (p.c.) makes the form a little bit more-so (for ex. more 'diminutive' if diminutive). It is unclear whether it can occur as a 'diminutive' without reduplication, for ex. in /χʷi-qʷáʔc/ at C21. If it is an intensifier it could even be cognate with Upriver Halkomelem lengthening, since that is an intensifier and since Upriver length in most cases corresponds historically to preconsonantal glottal stop in Downriver and Island dialect groups and other Salishan languages.

What we have recorded as /-iʔ ~ -il/ inceptive is not recorded glottalized in Hess 1976 or in Hess and Hilbert (n.d.) (for ex., vol.2:79-80 discusses it with color terms). Hess and Hilbert note that inchoative "-il often carries the idea of 'developing, becoming, growing to be'. Thus, a more exact English rendering of /ʔəsč(ə)cil/

is 'coming to be red, reddening'." They also note that the same word is translated as 'reddish, light red'.

The /lə-/ prefix is 'progressive' ('continuative' in Upriver Halkomelem terminology). It is unclear whether the variant /lə?-/ is /lə-?-/, but such a form would make the form 'more progressive', i.e. further away from reaching completion of the focal color. Note again, the verbal perspective of these forms. A literal translation for one such form was given for /lə-?-qʷá[-?-qʷə-]ɬ-iɬ/ 'just barely turning yellow'.

Hess and Hilbert (n.d.:2.79) also discuss two roots for blue. They note that blue-jay /kaẏkaẏ/, is used in /?əskaẏkaẏ/ 'blue-jay (color)' to refer to 'azure, sky blue'. They also give a color term word which we did not obtain in our session, /χʷi-qʷíχʷ/ 'dark blue, navy blue, very dark green'. Hess obtained this term from LG (our speaker) and other speakers as well (Hess 1976). This partition of blue is very important to note in the evolution of Central Salish yellow-with-green. It is cognate with the term used for 'brown' in Upriver Halkomelem and the emergent 'blue' on the margin of 'purple' in Samish.

One further Lushootseed color term, which LG recalled the day after we did the test (and so is not mapped), is /χi-čí-čc-álus/ 'brown' (which she had been trying to recall during most of the previous session). It is based on the root for 'red' but has diminutive reduplication, prefix /χi-/, and suffix /-álus/ (not attested in other color term words here but meaning 'eye, color' as in Hess 1976:690 where he gives /?əs-čúłəy?-álus/ 'leaf-color', /?əs-?əχíd-əlus/ 'What color is it?', /?áj-əlus/ 'bright (color)', and /qʷátqʷat-álus/ 'tears', etc.).

A few preposed adverbial modifiers occur too: /lá?ab/ 'real' (Hess 1976 /lá?b/ 'really, very') and /χəł ti/ 'like a, like the'. A few independent nouns were also used in one or two places, /słukʷáləb/ 'moon', /łúkʷəł/ 'sun', /təgʷád/ 'salmonberry', and /?áləčəs/ 'orange(s)'.

YAKIMA

In Figure 9a, related terms--focused at C9 in yellow and H17 in green--suggest a former yellow-with-green category. A second dominant 'yellow' term is focused at D7 in orange. Meanings of Yakima terms can be discerned by comparisons of Figure 9a with Figure Ød.

SUMMARY

The foregoing describes and compares systems of color categorization and color naming from nine individuals. Discussion addresses the meaning of terms that most dialects use to name yellow-with-green, with the suggestion that the original meaning was 'green-with-blue'. The original 'yellow' term cannot be inferred from these data. However a term surviving in the Chilliwack speaker's repertoire as

'purple' was reported by an older Nooksack speaker before his death to mean 'dark blue' in Chilliwack Halkomelem, and the same root is cognate with the root for 'green' in that speaker's Nooksack. This leaves open the possibility that that term might have meant 'green-with-blue' in Chilliwack, and that /c-qʷéy/ might have been 'yellow' gradually extending into 'green' as /c-píqʷ/ lost ground and retreated from 'green-with-blue' to 'dark blue' to 'purple'.

Attention is also paid to a widely shared form that names orange, either as an autonomous lexeme by some individuals or as a qualified root by others. Description of color qualifiers shows that these gain complexity as they designate colors that are increasingly marginal or light and marginal within a category. Chilliwack Halkomelem leads the tradition in complexity, exhibiting productive and contrastive semantic use of several reduplications, several aspectual prefixes, infixes, and suffixes (stative, continuative, and inceptive, resp.), preposed adverbial words, a three-way contrast between c-prefixed, s-prefixed and unprefixed forms, a hedging suffix (approximative), and a full set of eleven roots. Lushootseed is next in complexity. The qualifiers also are notable for variation between individuals.

Most of the Upriver Halkomelem qualifiers are cognate with those used in Lushootseed, Nooksack, and Samish. And they modify the terms in similar ways semantically in all four languages. These cognates include what can probably be reconstructed for Proto-Central Salish as inceptive */-il/ 'come, go, get, become', stative */ʔəs- ~ s-/ 'stative, be in a state of', diminutive or intensive insertion of glottal stop, diminutive reduplication (*C_1ɪ- ~ *C_1ə- the latter after root V_1). But various color term prefixes are not cognate except Upriver Halkomelem /c-/ with Nooksack /č-/ (Samish /nə-/ and Lushootseed /x̌i- ~ x̌ʷi-/ [the labialized allomorph before labialized consonants only]. (Upriver Halkomelem /c-/ may be a color term stative but probably is the same as the /c-/ prefix 'have, get' found in other verbs /c-cé·xʷ/ [ɕčǽ·xʷ] 'get a wife' < /cé·xʷ/ 'wife'.) Other modifiers include preposed adverbial or adjectival words, and use is also made of words for objects with characteristic color as marginal color terms.

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