REATTACHING TSIMSHIANIC TO PENUTIAN

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0. ABSTRACT. More than 75 years after Sapir first suggested it, the affiliation of Tsimshianic\(^1\) to the "Penutian phylum" can finally be substantiated, thanks to progress in the description of the Tsimshianic languages in the last two decades, including work towards reconstructing the proto-language. The systematic study of phonological and morphological patterns shows that Tsimshianic shares a common structural and lexical core with a number of the Penutian languages, especially those of the Pacific Northwest. It is likely that further research in this area will help establish both the internal and external boundaries of the "phylum", which are still in debate.

1. INTRODUCTION: In his 1921 article, *A characteristic Penutian form of stem*, Sapir made public an idea he had been entertaining for several years,\(^2\) by suggesting that

\(^1\) The word Tsimshianic was coined in Tarpent 1983 because of the ambiguity of the term "Tsimshian", used by Boas and his successors to refer to the linguistic group comprising both Coast Tsimshian ("Tsimshian proper") and Nisq'a ("Niska", Nisg'a, Nisga'a), which have been shown to be separate languages rather than dialects of a single language (Rigsby&Dunn). Coast Tsimshian (CT) is a member of the Maritime Tsimshianic branch, along with the almost extinct Southern Tsimshian (ST, locally called *Sgíí*t) (Dunn 1979, Tarpent 1992); these are spoken by people who identify themselves as Tsimshians (from *ts*Tm in, entering and CT *sly*a:n the Skeena river, ie the estuary of the Skeena). The Interior Tsimshianic branch includes Nisq'a (N) and Gitksan (G), spoken by people who identify themselves by these names, who consider themselves separate from each other and from the Tsimshians, and who strongly object to scholars insisting on identifying them or their speech as "Tsimshian".

The Nisq'a data presented here were collected during my employment as language curriculum developer with British Columbia School District 92 (Nisg'a) in the Nass Valley during the years 1977-80 and 1983-88 as well as in the summers of 1989, 1990, 1991 and 1992; I also spent the fall of 1995 in the Nass Valley. Research on the Nisq'a language in 1981-83 was supported by a Social Sciences and Humanities Research Council doctoral fellowship at the University of Victoria. The Southern Tsimshian data are from my own fieldwork with Mrs. Violet Neasloss in Klemu, B.C., supported by grants from Mount Saint Vincent University in 1991 and 1992 and from the Canadian Social Sciences and Humanities Research Council in 1993-95. Much of my research on other Penutian languages was done while I was on sabbatical leave from Mount Saint Vincent University during 1995.

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\(^2\) cf letter to Kroeber, Dec. 9, 1915: "... I now believe this enlarged Penutian stock ... to include, though you may blink with incredulity, Chinook!..... And now (don't faint!), I think Tsimshian is the most northern outlying member of the stock."
"Tsimshian", which is unrelated to its British Columbian neighbours, might be "a detached Northern offshoot" of the Penutian languages of California and Oregon, and he declared himself "fairly sanguine" that this relationship "can be demonstrated". Almost 75 years later, this hypothesis is still "the weakest link in the chain" (Hymes) as no such demonstration has been adduced. The Penutian group has been variously enlarged since Sapir's article (e.g. proposals by Swadesh, Whorf), but its boundaries have remained ill-defined, and the nature of the relationship (genetic or not) between the various language groups that compose it is itself in doubt. The "phylum" includes languages with considerable typological variety in spite of some widespread features, and the common lexical fund is considered very small (Silverstein 1979). Geographically, the languages of the group are interspersed with others belonging to different families (Salishan, Athapaskan, Hokan, Uto-Aztecan), so that there is a strong likelihood of large-scale borrowing and areal phenomena confusing the possible genetic picture.

If Tsimshianic could indeed be demonstrated to belong to the group, it would provide a very important contribution: its location hundreds of kilometers from the nearest Penutian subgroup (Chinookan), separated from it by the long-established Salishan family, means that common features would be likely to reflect genetic relationship rather than areal borrowing, and this common core would probably be at a considerable time-depth. Thus a demonstrably affiliated Tsimshianic could provide valuable clues to the structure of the presumed Penutian ancestor, in addition to the historical implications which interested Sapir.

Sapir did not publish his evidence, which consists mostly of notes scattered in the margins of grammars (Golla, ed. 1990). A few attempts at proving this relationship were made by non-Tsimshianists (Hymes 1956, DeLancey/Genetti/Rude 1988 [DGR]), relying on secondary sources for their Tsimshianic data. Lacking in-depth morphological and lexical knowledge of Tsimshianic, as well as reproducing

3 Quotation marks indicate a term or a spelling that was previously current but is no longer used or recommended. In particular, I use "Tsimshian" with quotation marks when referring to the work of Boas, Sapir and others who use the word where I use Tsimshianic, and Tsimshian without quotation marks to refer specifically to the Maritime speech varieties, spoken by Tsimshian people.

4 as well as by languages of the Kwakiutl group, of more recent implantation on the mainland. Sapir felt that "Tsimshian" was "probably profoundly influenced by ... Mosan" (italics mine), but this statement was never substantiated. Kwakiutl is profoundly different from Tsimshianic (confirmed by Emmon Bach, p.c.) in spite of their close geographical proximity at present and what Sapir recognized as "some obvious borrowings". Similarities appear to be greater with Salishan, and might be due to an early period of contact, cf below end of 5.3.

5 Sapir had done some fieldwork on the occasion of a visit by a Nisqa'a delegation to Ottawa in 1910 (leading to two articles on Nass River terms of relationship and Nass River society ), but his comparative data derived mainly from Boas's 1911 "Tsimshian" grammar and two volumes of Tsimshian Texts (the 1902 volume in Nisqa'a, the 1916 volume in CT). Unless some of Sapir's notes were destroyed, his evidence (as published in Golla, ed. 1990) consists only of 55 lexical and grammatical items, of which no more than 13 appear plausible. Some of the notes appear to have been entered from memory, as there are a number of errors and some references cannot be traced.
errors or misunderstandings deriving from the sources, those attempts were at best unconvincing to a Tsimshianist.\(^6\) As in the case of Haida and Na-Dene, Sapir’s hunch about “Tsimshian” and Penutian seemed very doubtful: it seemed to me that one could have made an equally good case for Uto-Aztecan,\(^7\) or even Indo-European! However, when I reviewed the literature which had been available to Sapir (the grammars in HAIL I and II), I discovered some intriguing resemblances with Takelma in a set of initial consonant correspondences (Tarpent 1990b) as well as in some of the morphological features. Further research in a variety of Penutian languages now suggests that Sapir, who had written a detailed grammar of Takelma, and worked on Chinookan, was right in adding “Tsimshian” to the list, and that resemblances between Tsimshianic and a number of Penutian languages, especially those of the Northwest, are such that genetic relationship is the most likely explanation. The Tsimshianic limb, precariously dangling for so long, can now be firmly attached to the Penutian tree.

2. PROBLEMS AND METHODS: The problem of demonstrating the affiliation of a single small family to a grouping of several different families, is related, but not identical, to the problems of language classification and of proto-language reconstruction: all are problems in comparative linguistics. Whether one deals with a small, obvious family such as Tsimshianic, or a far-flung group such as Swadesh’s proposed Macro-Penutian, the basic principles of comparative linguistics are the same: systematic comparison of phonological and morphological patterns can be done with any definable group of languages. The goal, and crowning achievement, of comparative linguistics is reconstruction of the proto-language of a large and varied group, but this goal is not always achievable, and even where it is, it is not reached at once, but by a series of steps, as the pieces of the giant puzzle are patiently assembled. That some pieces may never be found, so that the puzzle cannot be completed, does not mean that many or even most of the available pieces cannot be fitted into a plausible pattern.

If resemblances between Tsimshianic and any Penutian languages were "inspectionally obvious", there would not be any doubt about the relationship. The problem arises because while there are in some cases general resemblances which give a sense of familiarity,\(^8\) there are very few obvious resemblances of detail, and those are too isolated to appear conclusive to an observer who is not already determined to find them significant (eg because of faith in Sapir). At first, the only Penutian language which struck me as showing some likelihood of being remotely related to Tsimshianic was Takelma, the one that Sapir knew best. Chinook, geographically the least distant, appeared very alien in spite of, oddly, a sharing of

\(^6\) Some examples of superficially plausible resemblances which do not stand up to morphological analysis were given in Tarpent 1990b. As a result of the present research, however, I have been able to reevaluate the data presented by Hymes and DGR: in spite of a high proportion of errors, many of the individual forms they quote do provide good evidence, though in most cases I would not pair them in the same way as those authors.
\(^7\) cf fn. 9, 12, and also section 5.4. below.
\(^8\) eg while browsing through the HAIL I was often struck with some vague, general similarities with Takelma and Coos, while the grammars of Kwakiutl, Haida or Tlingit obviously described completely different language structures, to say nothing of the grammars of more geographically distant languages contained in those volumes.
pronouns; Coos looked at first sight more familiar, but this seemed to be due mostly to a similar phonological structure, as well as to the use of articles reminiscent of the Nisqa'a "connectives".

In order to demonstrate affiliation to a group, it might be sufficient to demonstrate affiliation to one member of the group, but the likelihood of affiliation is greatly strengthened if it can also be demonstrated with other members of the group. Given the geographical situation, it would have been highly unrealistic, and very suspicious, for Tsimshianic to have a special relationship with Takelma but not with languages considered related to Takelma. Therefore, I attempted to compile systematic comparative data, phonological/lexical and morphological, with as many Penutian languages as possible: in addition to the grammars of Chinook, Coos, Maidu, Siuslaw and Takelma, to which Sapir had had access, I used data from Alsea, Kalapuya, Klamath, Miwok, Molale, Nez Percé, NSahaptin, Wintu, and Yokuts (the quantity and quality of data available is extremely variable, and for a few of the languages the modern researcher is not in a much better position than Sapir).

At the same time, there did not seem to be any such thing as a typical Penutian language, or an agreed-upon list of typical features, to which Tsimshianic could be systematically compared: Sapir's "characteristic ... form of stem" applies chiefly to the earlier California grouping, and is most un-Tsimshianic; his capsule description of Penutian as one of the six superstocks is very general, and some of the features do not apply to Tsimshianic (tense, case), nor to all the other languages. But since any demonstrable relationship would be of ancient date, and depend on features also present in Tsimshianic, the oldest reconstructible layer of Tsimshianic (eg Tarpent 1990a, 1994) could offer clues about what to look for in other Penutian languages. In other words, not knowing quite what Penutian features I should look for in Tsimshianic, I could at least look for old Tsimshianic features in Penutian.

The following sketch of Tsimshianic structure, drawing on work in progress on Proto-Tsimshianic reconstruction, as well as on contemporary descriptions,

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9 see below 4.2.3. The sharing of 1S n-, 2S m-, with a number of Penutian languages did not seem to be crucial as a proof of affiliation since those pronouns are not in all Penutian and they also occur in other families such as Uto-Aztecan.

10 Boas' term for clitics which link together members of some phrases. The most common in Nisqa'a, =L, which has some article-like properties, is similar to Coos 1θ as well as to some Salishan articles.

11 Where possible I familiarized myself with the grammar of each language before consulting a dictionary, in which I studied the main body of data in the language before rechecking with the English index. The comparative data were first compiled in separate lists, eg Tsimshianic/Takelma, Tsimshianic/Yokuts, etc. within which the forms were organized according to consonant correspondences, mostly initial. The data shown in Appendix 2 all participate in sets of correspondences that apply to several pairs or groups of forms.

12 The description of "Aztec-Tanoan", which is very similar to that of Penutian, could be as least as applicable to Tsimshianic, since it mentions reduplication and noun-incorporation which are not in the Penutian description.

13 eg Tarpent 1983, 1990a, 1994. Many details, especially of proto-language vocalism, are still tentative (see appendix 1). For information on the contemporary
emphasizes points which are, or have been considered, relevant to Penutian
comparison.

3. BASIC FEATURES OF TSIMSHIANIC PHONOLOGY AND MORPHOLOGY.

3.1. ROOTS.

3.1.1. Root consonants:
- The basic root is CVC, with optional extra-syllabic consonants, hence
(C)CVC(C).
- Among CVC roots, the initial C- often carries lexical meaning, eg **ts-
coming to an end,14 hence also diminishing, disappearing, insubstantial, etc, as in N
tsf:p to evaporate, melt away, vanish, tsílks to thaw, melt into liquid, tsá thin, wispy
clouds, ST tsán fog, vapour, etc; the final -C is also sometimes glossable, so that in
both cases there are semantically related series of words sharing an initial or final
consonant. The fact that the (unproductive) plural prefix l- replaces the initial C
in some old stems beginning with q, k, h, or y, suggests that originally the root was
analyzable as *C-VC or *C-V-C.
- Initial clusters: some clusters are due to extrasyllabic 'augments' (C-CVC);
historically secondary clusters (esp tC-) are due to the loss of the root vowel in the
presence of a stressed suffix: thus *CVC2+V'C3 > C1C2V'C3; hence some C1C2VC3
types may go back to a *C1VC2 root. Similarly some initial glottalized C's may result
from an extrasyllabic ? (cf PTsim distinguished labialized *?w from an initial
sequence *?w.)15.
- tentative Proto-Tsimshianic (PTsim) consonant inventory:

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- notes: The modern Tsimshianic languages have no labialized postvelar
series (note PTsim *Cw < **CVw at least in some cases) and it is not yet clear whether
PTsim had one or two labialized fricatives, or even only hw; L = barred l (voiceless
fricative); N, G have a tL' from t' + L or L + ?; CT has only X, others have x, xw, X;
the glottalized resonants probably did not exist in PTsim, but were later derived from
contact with ?, as some modern instances are. CT and ST also have glides ū and ū',16
the central, unrounded counterparts of w and w'. Plain stops are usually
allophonically voiced before vowels.

languages, see especially Dunn 1978, 1979ab (Coast Tsimshian, Southern Tsimshian),
Rigby 1986 (Gitksan), Tarpent 1989b (Nisqa'a ), 1992 (Southern Tsimshian).
14 cf also root **tséq in Appendix 2, example 2.
15 note this means that initial preconsonantal ? (resulting in a glottalized initial)
may have been a morpheme.
16 For technical reasons I use these symbols here for semi-vowels as well as vowels.
Dunn writes the semi-vowels as unlaunted w's.
- The N,G reflex of PTsim initial *p' is *m' (N,G initial p' occurs only in borrowings from CT), but CT, ST initial m' in some roots seems to be original, a reflex of *m' or perhaps **? - m.

3.1.2. Root vowels: (cf table of Tsimshianic vocalic correspondences in appendix 1)  
- N, G have i, e, a, o, u long & short\(^{17}\), plus unstressed \(\partial\); ST, CT have a much more complex system including in addition \(\ddot{u}, \ddot{o}\): (high/mid central), and A (low central), as well as several diphthongs. The ancestor of N and G (Proto-Interior-Tsimshianic or PIT) had 3 vowels *e, *a, *o (Tarpent 1983) which can perhaps be traced back to an earlier 2-vowel system with **\(\partial\) [here written **e] and **a.

- Many CVC roots show vowel-alternation of length and/or quality, traceable to *CVC and *CVHC, eg N CaC/Ca:C from *CaC/*CaHC, CaC/CIC from *CeC/CeHC (Tarpent 1990a); the infix H (a phonetically undefined vocalic element, probably a \(\partial\)-glide) added imperfective meaning. The interplay of original vowel, H, and surrounding consonants results in a great variety of vowel correspondences.

3.1.3. Stress: in most cases, stress is on the root, or on a stressed suffix, but many older forms show stress on the penultimate syllable (Tarpent 1994), regardless of morphological status (3.2.1, fn. 19, 21).

3.2. STEM-FORMATION.

3.2.1. REDUPLICATION: Although the modern Tsimshianic languages appear superficially to have several distinct patterns of reduplication, these patterns are reducible to two basic types: C (intensive, repetitive, durative) and CVC (multiple actions, action on multiple objects), the latter found in all periods including the earliest reconstructible level (Tarpent 1983); the older stress type is CV’C)CVC, modern CVC)CVC (cf 3.1.3.).

3.2.2. AFFIXATION.\(^{18}\)
- prefixes: there are only a few grammatical prefixes: old plural lə- (from *l- or *ləh-)\(^{19}, 20\), nə- (from *nəh-) reciprocal (with transitive verbs, kin

\(^{17}\) Rigsby 1986 uses only l, a, u for the short vowels of Gitksan, and such a system is also defensible for Nisq’a because of the mostly complementary distribution of short l/e and u/o, but I find a 5-vowel system easier and more economical for describing some of the morphophonemics. The 5 long vowels contrast in most positions.

\(^{18}\) In citing morphemes, I use mostly the N form, which is usually the closest to the proto-language in terms of consonants, especially final ones, so that the morphological structure is clearest in N, especially for the suffixes. In most cases G forms can be derived from cognate N forms, so I only quote G forms where the G contribution is significant. In Tsimshian final *kw is usually delabialized.

\(^{19}\) stressed in some archaic forms. This prefix is used only with intransitive stems, referring to actions performed by individuals or states affecting them (e.g. body functions, positions, motions, etc). The meaning is probably at the same time but separately.

\(^{20}\) This morpheme is definitely a prefix, although Sapir referred to it as "prefixed and infixed -l, l- for plural verbs" (letter to Kroeber, cf fn. 2): the confusion is understandable because this (old) prefix occurs directly preceding the root, and the
terms)(these two prefixes normally cooccur with suffix -T, see frames below); old
prefix nə- (from *neh-)
21 frozen on senior kin terms,22 eg *nə-ntsəːts' > N
nts'its' grandmother (address N ts'its); ʔa- spontaneously, without apparent
reason or agency, Jussive N kwim-; locational prefixes *qə-, *kə-, *k-. Another
plural prefix qa- seems to have been originally a collective but now indicates mostly
distributive possession.23
There are a few productive lexical prefixes: all sə- to make, prepare, process ..., na-
instrument for ..., ka- most ..., *nə- > N ʔan-, ST ʔiːn-, CT nə- cause, means of ...
Lexical proclitics, clearly a more recent layer, indicate mostly location and
direction. (Many morphemes labelled 'proclitics' by Boas are actually prefixes or
particles).

-suffixes: (note that suffixes are never full CVC syllables): suffixes are
especially important in the formation of predicative forms (divided into transitives
and non-transitives, the latter including intransitive verbs, nouns and adjectives).
There is no tense or case); Person is the only true inflection.
-old stressed suffixes of shape -VC were probably originally intransitive or
nominalizing; especially *-éHs > ST, CT -ís, N -īs; *-ēh > all -ā;
-newer predicative suffixes are mostly consonantal; most common are
medio-passive (very general) -T24 and -tkw,25 the latter used also in some
possessive constructions; -s is currently an allomorph of -tkw but may have had a
different meaning in earlier times; causative ʔn, complete ʔl (both
transitive), antipassive (also nominalizing) -ʔs (all three including an older suffix

resulting plural stem can itself be preceded by other prefixes, such as ʔa- (see
below), as in N ʔa-skə to be abnormal, ugly, pl. ʔa-lə-skə-T > ʔaliskət (with
suffix -T completing the plural frame lə-...-T)(see below). The example quoted by
Sapir (in the same letter) as "ayayéwa "to shout" < ayawa" is atypical: the singular
ʔayawá:/ʔayawáː: an interjection expressing sorrow, used as a stem for a verb,
thus N ʔayawáː-tkw to scream, wail, etc. (animal) to utter its cry; the plural is
formed by treating the unstressed sequence ʔaya as a prefix similar to the genuine
prefix ʔə- and the stressed sequence wáː as a stem, thus the N plural ʔaya-lə-wáː-
T > ʔayalawáːt.

21 stressed in some archaic forms. This prefix indicating reciprocity is parallel in
form and function to the plural prefix, which indicates separateness.
22 except in vocative use, exactly as in Yokuts, cf YokYaw n₁-bə: old brother,..
This prefix was identified by Sapir with "Penutian first person "n" (cf below
pronouns). This is likely to be correct, since some other Penutian languages have
a 2S or 3S prefix frozen on kin terms. Alternately, the source might be the reciprocal
prefix. The Tsimshian particle (not prefix) nə, nə, nə indicating alienable
possession has also been suggested as a source (Silverstein 1969, Tarpent 1986), but
this is probably incorrect: the primary meaning of this particle, is remoteness,
hence its use to indicate also Past ; in both meanings this particle corresponds to N
Li (which is used less frequently).
23 old-collective meaning: N qa-Läqs-t their claws (= set(s) of claws) ; present
distributive meaning: N qa-k'uːtəːtəs'-təːt their coats (each has one coat).
24 A morpheme usually realized as /l/ but with other phonologically conditioned
allomorphs. It is also used as an adjectival suffix. Some correspondences N -T,
Tsimshian -te suggest that at least some uses of -T go back to Tsim -teh.
25 delabialized in Tsimshian; probably from a combination *-t-kw as -kw also
exists as a non-productive suffix; in -tkw the /l/ is lost after obstruents.
*-ʔ), often followed by -T or -tkw. Many others are identifiable but not productive, eg -m, -L(kw) temporary (?). Many words include 2 or 3 such consonantal suffixes as newer formations build on existing words. Among -VC shaped suffixes (unstressed) is detransitive *-eʔ > N -aʔ (which glottalizes preceding obstruents), ST, CT -a.

- a linking or attributive suffix -m occurs between members of some phrases, eg N kámk-ʔáks hot water (hot-m water), or compounds, eg N hó:píx-m qán wooden spoon (spoon-m wood) and also in some compound nouns and verbs. See Pronouns below (3.3.) for personal suffixes.

- a final extra-syllabic consonant sometimes appears to be a 'frozen suffix' (Sapir's term in Takelma), to which it may be possible to assign a meaning: eg *-q often has to do with the mouth, *-p may mean permanently, in one place (cf Appendix 2, V); a final glottalized C often seems to result from final -C + *-ʔ suffix or augment.

- frames: (= set prefix/suffix combinations) usually with suffix -T or -(t)kw, eg plurals and reciprocal 10.....-T and nd.....-T respectively (see prefixes above), qa....-tkw indicating kin collective possession,26 and a variety of prefixes or proclitics as a first element: N kwills....-tkw to ... oneself (animate subject), ʔa....-tkw to ... by itself (inanimate subject), yur....-tkw to have (a) ... on o.self, to be in charge of ...., kilt-(ʔan)....-tkw to go somewhere else in order to ... 27, his....-tkw to pretend to..., to ... for fun.28

3.2.3. COMPOUNDING: compound nouns, adjectives and (incorporating) verbs are plentiful and there are very productive processes for their formation. Object-incorporation also occurred in PTsim: basically verb+noun > intransitive verb. In older forms (not immediately recognizable as compounds) the noun could be either a direct or a locational object (eg N má:ks- put in water (eg net) > wash (clothes) from *máq*-ʔeks put-water ); in modern forms, a location cannot be incorporated.

3.3. PRONOUNS.

- ergative clitic pronouns: 1S nâ, 2S mâ, 1P tâp, 2P mâ ... sâm (may be separated by other morphemes), 3t, precede the verb.

- personal suffixes are used in all other cases (eg possession, object, intransitive subject): 1S ST, CT -u, N, G -y’ < *-ʔweHH, 2S -n, 1P *-m’, 2P *-sâm’ 29, 3t: the latter is unmarked for number in Tsimshian for all references, and in N, G for non-humans. For humans, N, G have a plural suffix -tl which I interpret as *-teHH-t, where *-teHH is an old suffix surviving as N Impersonal -tl:, with a counterpart *-teh surviving frozen in a few exclusively plural forms, eg ST qá:w-tl, N qo:-ta.

26 eg N nîyéʔ grandfather, qa-nîyéʔ- tkw-m’ our grandfathers.
27 the sequence -ʔan occurs in modern forms but is absent from older ones, eg N kilt-wîl-tkw warriors, war party vs. kilt-ʔan-t’a:-tkwîo go stay in another house (temporarily).
28 In the CT, ST equivalent the prefix is sîs-, considered by Rigsby to be original, with a change s > h in N, G (p.c.). But such a change is not attested anywhere else in Tsimshianic.
29 1P and 2P suffixes end in glottalized m’ in N, G but ST and CT have lost glottalization here.
to be all gone. The personal suffixes are also used with special bases for independent and indirect pronouns. In addition, there is a Relative/Agentive suffix -ʔt used with intransitive verbs.

4. CORRESPONDENCES WITH OTHER LANGUAGES.

4.1. ROOTS.

4.1.1. Searching for roots: Any language distantly related to Tsimshianic can be expected to show resemblances in the area of root- and stem-formation, more than with affixes, except those belonging to the oldest layer. Identifying the root among strings of morphemes in an unfamiliar language can be very difficult: in Chinook, for instance, the root is often the least conspicuous part of a polymorphic word. A clue to the identification of the root is reduplication, an extremely important process in Tsimshianic, and a feature present in some measure in the majority, if not all, of the Penutian languages: since at the oldest PTsim level, reduplication affects only the root, that part of a complex word which shows reduplication can be assumed (at least tentatively) to be the root. Tsimshianic CVC roots can occur with a following consonantal augment or 'frozen suffix': in a related language, we can expect the same root to occur either with this same augment, with a different one (or more), or plain. Tsimshianic CVC roots can be reduced to CC if followed by a stressed suffix: initial CC clusters may be found separated by a vowel in other languages in which the full root occurs; conversely, CVC roots may correspond to CC clusters in other languages. Of course, the more root material shows similarity, the more likely it is to represent a genuine correspondence, but since there is evidence that the PTsim root was analyzable at least as C-VC, even similarities limited to the initial consonant may be considered as additional material in some cases.

4.1.2. Identifying potentially cognate roots: As the lexical meaning is carried mostly by the initial consonant of a Tsimshianic root, data from other languages have been assembled and classified primarily according to similarity with Tsimshianic root-initial consonants, associated with similarity of meaning. For a preliminary listing, similarity was defined as same place of articulation, e.g. labial, dental, regardless of manner. This is not "schematized phonology" (Silverstein 1979:678): the fact that changes in manner, e.g. voicing, glottalization, are meaningful features in many Penutian languages (e.g. they play an important morphological role in Takelma) means that they, like any other morpheme, can be abstracted in a preliminary search for roots. I emphasize the word "preliminary": one has to start somewhere. As for vowels, I can do no better than to quote DGR:

30 Tarpent 1983. cf fn 24 about -ʔT: it is perhaps significant that -ʔT is the suffix in frames with plural or reciprocal prefix.
31 eg for Nisqa’a three distinct periods can be identified, based largely on reduplicative plural patterns. In the oldest period, reduplication affects only the CVC root, in later periods it affects more and more morphological material (Tarpent 1983, 1994).
32 Much of the data collected by Sapir, Hymes and DGR involves forms which share only that kind of partial similarity, which I did not find credible at first. Replaced in the context of root structure, many of them may be acceptable, in addition to more definite resemblances involving full roots. cf appendix 2, IV.
The attested existence of syncope, epenthesis, and partial or pervasive vowel harmony in some or all of the languages makes equating the presence or absence, and to some extent the identity, of vowels across languages quite challenging; and it will be difficult to make much progress on this front until we have been able to establish likely cognate sets on the basis of consonant correspondences.

When potential cognates are classified and subclassified according to phonological categories, rather than according to what the linguist perceives as similar meaning, it is easy both to notice regular correspondences, and to cull out forms which do not fit these regularities, however likely those 'duds' seemed at the beginning: for instance, an apparent correspondence m/m will probably need to be weeded out if it is alone against a whole series showing a regular correspondence m/p. In addition, gaps in expected correspondences are also very noticeable in a classification based on phonology, and their presence can lead to a search in other directions: for instance, my initial Tsimshianic/Takelma list (1990b) listed correspondences in manner (eg stop/stop) for every place of articulation except palatal; it turned out that for palatals the correspondence is stop/fricative, a possibility I had not considered at first. Once the more obvious, near-identical matches have been identified, searches can be directed toward likely correspondences due to common processes such as fronting of uvulars, delabialization, palatalization and affrication of velars, assimilation of palatals or dentals, etc. The sample data below, then (in appendix 2), are not based only on first impressions, but have been subjected to several "rounds" of language-by-language comparison.

4.1.3. Root and stem formation: The patterns C-VC and *CVC-V'C > CCVC are both very common; also common are extra-syllabic initial augments and vowel alternation within roots (ablaut); in Alsea, Chinook, Coos the root is often reduced to CC because of stress on the prefix; consonantal 'frozen suffixes' are also common, often involving the same consonants as in Tsimshianic. The alternations of vowel-length, as well as the loss of unstressed vowels, found in basically CVCVC roots/stems in Alsea, Wintun, Miwok, and others, are all compatible with the basic PTsim stem patterns *CVC-VC, *CVHC-VC, *CVC-VHC, *CVHC-VHC, since one of the effects of H is vowel lengthening (cf 3.1.2. and Appendix 1). Lexically, many roots or portions of roots (initial or final) are shared throughout Penutian (see appendix 2 for a small sample); the Northwest languages have a larger portion of corresponding full roots, with similar range of meanings. In a number of cases, forms in other languages have helped to reconstruct proto-Tsimshianic forms or to choose between alternate proto-forms.

4.2. MORPHOLOGICAL PROCESSES.

4.2.1. Reduplication: Both partial (initial consonant) and full (CVC) reduplication, the two basic types in Tsimshianic, are found in most of the languages considered, although the nature and function of reduplicating patterns varies greatly from one language to another. In languages where reduplication plays a major role, as in Takelma, there are very complex patterns, which seem to be elaborations on the two basic types. For instance, in Chinook and Takelma we find instances of full reduplication CVCVC as in Tsimshianic, but also CVCV'CVCV'C from a stem *CVC-V' (compatible with PTsim *CVC-V'h), and CVCV'CVC reflecting loss of a final unstressed vowel, together with other secondary morphophonemic variations: eg root *qwel found in many languages: roll, round, round object: eye, egg, etc

4.2.2. Affixes and clitics: In languages related to Tsimshianic we are likely to find resemblances with old, unproductive, rather than newer, productive affixes, but determining the age of an affix can be difficult, so that this criterion is not fully reliable. Nevertheless, similarity is expected with the grammatical affixes rather with those likely to be more recent (eg the many lexical proclitics). Most Tsimshianic grammatical affixes are suffixes consisting of one or more consonants, but a few grammatical prefixes, consisting originally of a whole syllable, could have been independent clitics in the past: therefore the same formatives may be considered even though they occur as prefixes in one language, suffixes in another. The following is a partial list (cf 3.2.2.):

- The Tsimshianic locational prefixes *qá-, *ká-, *k- which form locational nouns and adverbs (eg behind, upriver, etc) have almost identical counterparts in several languages:

<table>
<thead>
<tr>
<th>PTsim</th>
<th>Tsim</th>
<th>Al</th>
<th>Co</th>
<th>Siu</th>
<th>Tak</th>
</tr>
</thead>
<tbody>
<tr>
<td>*qá-</td>
<td>qa-</td>
<td>qa/-q-</td>
<td>qa/-q-</td>
<td>qa/-q-</td>
<td>ka-</td>
</tr>
<tr>
<td>*ká-</td>
<td>ki-</td>
<td>ki-</td>
<td>yi-</td>
<td>k1/-/k1E-</td>
<td>xi-</td>
</tr>
<tr>
<td></td>
<td>k-/x-</td>
<td></td>
<td>x-/tC-/tS-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- The Tsimshianic prefixes *leh- plural and *neh- reciprocal correspond to suffixes in other languages: dual/plural -l-, reciprocal or reflexive -n- occur in several languages eg Al -l (eg yo:l pl of yda to speak ), Win -le- pronominal plural suffix , -l dual; Tak -an- reciprocal, Coos -ání: one another, -ini: mutual kin, (Sapir).

- Some frames also occur in other languages: eg in Maidu hekotto to cut self, to break, crack of itself, he-....to corresponds exactly to the Tsimshianic structure *?a-....tkw (difficult to express in English but corresponding exactly to French inanimate reflexives); qa-....tkw indicating kin collective possession has been compared to Klamath sg-....-l-tko 'to be related as ...s' (DGR), which can also be paralleled with nd-....T to be related as ...s, to be ...s to each other (eg sisters, etc).

33 Sapir's notes comparing "Tsimshian" with Chinook, Coos, Siuslaw ("Lower Umpqua") and Takelma include this sort of equation, which I found unacceptable at first, but which seems justified at least for the plural and reciprocal prefixes.
34 cf also Km ha- and hi- in words such as here, there, and other adverbs.
35 Wintu also uses a reduplicated form of this suffix as -VIVIV(h)a to indicate disparity of subject: many separately to ...
36 eg N ?a-qáq-s (-s is allomorph of -tkw after Velar) = Fr s'ouvrir (lit. to open oneself), Eng to open (spontaneously, eg a door); although not reflexive in English, such meanings are expressed by formal reflexives in many languages (Tarpent 1989a).
- Stressed suffixes practically identical to Tsimshianic ones occur in Alsea, Coos, Siuslaw, etc, often causing reduction or loss of the original root vowel: ex. *-éńəs > ST, CT -f:s, N -f:s intransitives and resultative nouns : Al -f:s, Siu -f:S, Co -Ts nominal, Win -f:s; Tsim *-éh > all -á nominal : Al -l:, Siu -i: nominal.

- Consonantal suffixes: the ubiquitous Tsimshianic suffix *-tkw is matched in some of the other languages (cf DGR: Klamath -dg- or -tko; also Chin -tk, Mai -to, MiBo -t:ak). The almost as ubiquitous -T, which among other things is adjectival, has counterparts in Al, Siu, Tak adjectival -t. Causative *-n (3.2.2.) has counterparts in (among others) Tak -(a)n causative, Co -eni: to make sthg ... (both in Sapir), and Miwok causative suffixes also in -n-. Attributive -m, temporal -m are both widely shared, eg for the latter: N má:tim winter, (cf má:kws snow on ground), kwó:yim spring, kwani:m continually: Chin kuayam summer, gwa:nEm always (Hymes); cf also Km lë:m'lll season, time of ... (suffix), Co -ime:x suffix forming adjectives of time, Tak -imikll suffix forming adjectives from temporal adverbs.

4.2.3. Pronouns: (cf 3.3.): the Tsimshianic Ergative pronoun system is closest to the Chinook pronominal system, but there are resemblances in several other languages: IS ná, 2S má have very common though not universal counterparts; for 2P, Tsimshianic separates the two components in má:...sá:n, which Hymes 1956 compares to Chinookan m-sÁ, misÁ:n, misÁ:ná as well as to "Maidu mín-sá:n"37, and there are similar forms in other languages as well: Kal 2P mítli, matli: ; MiB 2D mí:kkos, 2P mí:kko; Yok 2D ma'ak'.

4.2.4. Compounding: Some forms in other languages (eg Chinook, Takelma) suggest an old pattern of V+N object-incorporating compounds similar to that in Tsimshianic.

5. PENUTIAN VIEWED FROM THE NORTH.

5.1. Re-attaching Tsimshianic---to what?: I hope to have shown that there is ample evidence (although not often obvious) substantiating Sapir's hunch about the affiliation of Tsimshianic to the Penutian group. I have found lexical-phonological as well as structural resemblances with Tsimshianic in all the Penutian languages I have been able to consider, in spite of the great differences in the languages themselves and in the quantity and quality of materials that I was able to consult. These resemblances are strongest with the Northwest languages, without indicating a special relationship with any single one of them. That I first noticed resemblances with Takelma rather than other languages mentioned by Sapir is probably due in large part to the the quality of the documentation available: Sapir's grammar of Takelma is much more insightful and contains much more material than Frachtenberg's grammars of Coos and Siuslaw.

Sapir's 1921 classification of Penutian languages followed a South-North axis, from the original (California) Penutian group to "Tsimshian". As Chinook was the closest neighbour to Tsimshianic, it was natural to think that geographical proximity (relatively speaking) was matched by structural similarity. As mentioned above, apart from the pronouns the resemblance with Chinook was anything but obvious to me when I started my investigation of the subject, and while my further research does strongly support the hypothesis of relatedness, no single language

37 Mai ml: subjective, min objective take suffixes -sa:m dual, -se:m plural (Dixon).
now appears especially close to Tsimshianic, at least in the present state of knowledge.

5.2. A Northwest subgroup: Instead, roots, stem-formation, affixes and clitics, and many other structural and lexical resemblances tentatively define a Northwest group including Tsimshianic, Chinookan, Alsea, Siuslaw, Coos and Takelma. One of the most obvious characteristics of this group, in spite of quite considerable internal differences, is its conservative phonology, especially in the northernmost members Tsimshianic, Chinookan and Alsea (e.g. preserving uvulars and even labio-uvulars, with tolerance of heavy consonant clusters): some initial clusters are found only in Alsea, Chinook and ST (the latter maintains initial consonantal contrasts which have merged in the rest of Tsimshianic). But this shared conservatism is not enough at this point to postulate a northern subgroup, especially since Alsea is so little-known. Chinookan does have strong resemblances with Tsimshianic in its root and stem structure and its consonantal phonology, but these similarities do not extend to the very different prefix system. Sapir thought of Chinook as evolved from "a broken-down form of Penutian", the latter resembling Coos and Takelma, but there is nothing 'broken-down' about the archaic phonology and the old morphological core of root- and stem-formation, which are firmly in place.

Judging from resemblances with Tsimshianic, the Northwest group includes Takelma but not Kalapuya, which is structurally quite different (e.g. reduplication is a major process in Takelma, with several subpatterns, but plays a negligible role in Kalapuya); most of the vocabulary items shared between those two languages are also found in others. In phonology and morphology Takelma seems to be transitional between COP and Yok-Utian, while Kalapuya might be more appropriately linked with Molale.

5.3. Geographical factors and historical speculations: The geographical distribution of the Penutian languages is strongly correlated with that of bodies of water, especially rivers, and some of the relationships between the languages are understandable if one takes into account this geographical factor (this is true whether differences between the various families are explainable mostly in terms of internal evolution alone or should take into account possible substrata).

The Northwest group includes the most phonologically conservative of the Penutian languages (Tsimshianic, Alsea, Chinookan); the languages of this group

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38 Eg ST xwán deer, wán to sit (pl), all others wán for both meanings; N sq’an-, G sqan-, CT sXan-, ST tsXan-...bush, ...plant, support for ... (bound root), < PTsim *tsq’an; all ts’ép tribe, people < PTsim *ts’ép, but N ts’ép bone, ST tx’éyp < PTsim *tk’éHh-p.

39 Sapir 1921 classified the "Oregon" languages as 1. Takelma, 2. COP (Coos, Siuslaw, "Yakonan" = Alsea), 3. Kalapuya." Takelma and Kalapuya were brought together by Frachtenberg and later Swadesh, on purely lexical criteria, ignoring the morphology (see next footnote).

40 Cf independently Silverstein 1979: "It appears to me from a survey of Molale data that ... it will probably be more directly related to Kalapuya-Takelma" [than to the Plateau languages] (p. 679), even though he doubts "whether ... there is" between Kalapuya and Takelma "the kind of exclusivity that would justify Swadesh's label 'Takelman'" (p. 678).
share basic patterns of root- and stem-formation which appear to be of ancient date. This group therefore may represent the most archaic stage, surviving in isolated areas (estuaries) along the North Pacific coast (British Columbia, Oregon). The mixed character of Chinookan correlates with its situation in a major estuary resulting from the confluence of the East-West-flowing Columbia and the South-North-flowing Willamette, both important routes (note that Kalapuya and Molale are situated along that South-North axis, while the Rogue River, home of Takelma, flows West). The Plateau languages to the East (actually spread out from the upper Columbia River) are morphologically characterized by the cooccurrence of multiple 'roots', but those 'roots' themselves are similar to the Northwest roots and stems. The much simpler phonology and the morphological restructuring in the more Southern languages may characterize the most dynamic area (formerly considered "Core Penutian"): indeed the Penutian languages are considered to have moved from North to South into California along yet another river valley (Whistler 1977). On the other hand Klamath, centered on a lake, was in a position to develop quite idiosyncratically.

It is possible then that the 'cradle' of these languages was around the mouth of the Columbia (cf DeLancey), from where people first migrated both North (> Tsimshianic) and South (> COP) along the Pacific coast; inland extensions East and South, up river valleys, may have involved language replacement rather than, or together with, people migration. The Skeena estuary, ancestral home of the Tsimshians, is a long way from the Columbia, but we need not assume a single migration directly from one river to the other: there may have been in the past other settlements on the coast, which were later absorbed into the surrounding Salishan or Wakashan domains. Some resemblances between Tsimshianic and Salishan, which are not presently contiguous, suggest that they were once neighbours but were cut off by the expansion of Kwakiutlan on the mainland, just as Kwakiutlan expansion cut off Bella Coola from its Salishan congeners: under those circumstances, small pockets of pre-Tsimshianic speakers would probably have been absorbed by one or the other of the competitors.

5.4. Beyond Penutian: The southern boundaries of the Penutian group are not fully agreed-upon. Further research in the common characteristics of Penutian, structural and lexical, should help in deciding its boundaries as well as its relationships, if any, with other phyla such as Hokan or Uto-Aztecan.

Long before I became seriously interested in the affiliation of Tsimshianic, I was often struck with a feeling of familiarity whenever I encountered data from some Uto-Aztecan languages such as Hopi or Nahuahtl. Sapir's 1929 description of Penutian did not seem very applicable to Tsimshianic, but that of "Aztec-Tanoan" appeared much more to the point (the problem of geographical distance applied to both groups). The descriptions of the same phyla in recently published lecture notes by Sapir have much more in common (eg both mention reduplication): Sapir thinks that Aztec-Tanoan is "mixed" in structure, and his final comment is: "impresses me as old Penutian strongly overlaid by Hokan" (Golla, ed. 1990:85-86).

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41 cf fn. 1.
42 even though the navigational prowess of the coastal tribes does not allow us to rule out such a migration.
43 these include some features of syntax and a few borrowings.
In order to evaluate this statement, and proposed extensions of the Penutian domain (Macro-Penutian) that may have been based on it, it is essential to establish the characteristics of "old Penutian": I believe that many of them will be very close to the characteristics of Proto-Tsimshianic.

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APPENDIX 1

PROTO-TSIMSHIANIC RECONSTRUCTION (in progress) (includes most vowel correspondences)

<table>
<thead>
<tr>
<th>Proto-Tsimshianic</th>
<th>Nisqa'a</th>
<th>Gitksan</th>
<th>SouTsim</th>
<th>CoastTsim</th>
</tr>
</thead>
<tbody>
<tr>
<td>*sâh</td>
<td>day</td>
<td>sâ</td>
<td>sâ</td>
<td>sâh</td>
</tr>
<tr>
<td>*t'aHh</td>
<td>sit, stay (sg)</td>
<td>t'a:</td>
<td>t'a:</td>
<td>t'a:</td>
</tr>
<tr>
<td>*yâHh</td>
<td>to go, walk (sg)</td>
<td>yê:</td>
<td>yê:</td>
<td>yâ:</td>
</tr>
<tr>
<td>*kâw</td>
<td>to be moored</td>
<td>kyô:</td>
<td>kyô:</td>
<td>kyô:</td>
</tr>
<tr>
<td>*tâHw</td>
<td>ice, fire, be frozen</td>
<td>tâ:w</td>
<td>tâ:w</td>
<td>tâ:w</td>
</tr>
<tr>
<td>*yêl</td>
<td>to turn around</td>
<td>-yêl</td>
<td>-yêl, -yêl</td>
<td>-yêl</td>
</tr>
<tr>
<td>*kéHn</td>
<td>to give food to s.</td>
<td>gín</td>
<td>gín</td>
<td>gín:</td>
</tr>
<tr>
<td>*qéHn-X</td>
<td>path, road; tree to fall</td>
<td>qínX</td>
<td>qínX</td>
<td>qâyna</td>
</tr>
<tr>
<td>*tôX &gt; *tôX</td>
<td>to lie, be (pl inanim)</td>
<td>tôX</td>
<td>tôX</td>
<td>tô:</td>
</tr>
<tr>
<td>*séHq</td>
<td>to be sharp (&lt; cold)</td>
<td>séq</td>
<td>séq</td>
<td>séX</td>
</tr>
<tr>
<td>*séHq</td>
<td>)séHq</td>
<td>to be sharp (pl)</td>
<td>s:saq</td>
<td>s:saq</td>
</tr>
<tr>
<td>*séHh-q</td>
<td>stay awake, wake early</td>
<td>séq</td>
<td>séq</td>
<td>sôyX</td>
</tr>
<tr>
<td>*hêHh-tkw</td>
<td>to stand</td>
<td>hítkw</td>
<td>hítxw</td>
<td>hâ:ytk</td>
</tr>
<tr>
<td>*kêw</td>
<td>to take s.</td>
<td>gû:</td>
<td>gû:</td>
<td>gâ:w</td>
</tr>
<tr>
<td>*qêw-</td>
<td>to be assembled</td>
<td>qo:-</td>
<td>qô:-</td>
<td>qâ:w-</td>
</tr>
<tr>
<td>*heHw</td>
<td>to say, feel, sing. said</td>
<td>hí</td>
<td>hâ:j</td>
<td>hâ:w</td>
</tr>
<tr>
<td>*t'êHw-s</td>
<td>to hit, push s.</td>
<td>t'ís</td>
<td>t'ís</td>
<td>t'âs:</td>
</tr>
<tr>
<td>*qêHw-s</td>
<td>hair</td>
<td>qís</td>
<td>qís</td>
<td>qâ:s</td>
</tr>
<tr>
<td>*t'êkw</td>
<td>to twist s.</td>
<td>t'âkw</td>
<td>t'âkw</td>
<td>t'â:k</td>
</tr>
<tr>
<td>-*t'êHkw-? &gt; navel</td>
<td>t'úk'w</td>
<td>t'ík'w</td>
<td>t'í?lk</td>
<td>t'ík</td>
</tr>
<tr>
<td>*wêh</td>
<td>name (&lt; being?)</td>
<td>wá</td>
<td>wá</td>
<td>wâ:</td>
</tr>
<tr>
<td>*wêHl</td>
<td>to be, do, act</td>
<td>wîl</td>
<td>wîl</td>
<td>wâ:l</td>
</tr>
<tr>
<td>*?wêh</td>
<td>to get, obtain, find</td>
<td>wá:</td>
<td>wâ:</td>
<td>wâ:</td>
</tr>
<tr>
<td>*?wêh</td>
<td>to cover s., top, surface</td>
<td>?û</td>
<td>?û</td>
<td>?ôh</td>
</tr>
<tr>
<td>*kwêHp (*kwép)</td>
<td>to eat s.</td>
<td>kíp</td>
<td>(kúp)</td>
<td>kâp</td>
</tr>
<tr>
<td>*skwêHh</td>
<td>to lie, be (sg inanim)</td>
<td>skí</td>
<td>skí</td>
<td>skû:</td>
</tr>
<tr>
<td>*lêkw</td>
<td>firewood</td>
<td>lákw</td>
<td>lákw</td>
<td>lák</td>
</tr>
<tr>
<td>*kwêHkw-s-</td>
<td>'jump &gt; wake</td>
<td>g(yû)kwskw</td>
<td>gûxwsxw</td>
<td>gâksk</td>
</tr>
<tr>
<td>*q'wêts</td>
<td>to cut s.</td>
<td>q'ûts</td>
<td>q'ûts</td>
<td>q'ôts</td>
</tr>
<tr>
<td>*qwêHl-kw</td>
<td>to wind around s.</td>
<td>qîkw</td>
<td>qîkw</td>
<td>qâ:ôlk</td>
</tr>
</tbody>
</table>
APPENDIX 2

SOME EXAMPLES OF ROOT CORRESPONDENCES

The following is a small sample illustrating the types of root correspondences found between Tsimshianic and various Penutian languages. The examples are based on a series of lists comparing Tsimshianic forms one-to-one with those in other languages, e.g. Tsimshianic/Chinook, Tsimshianic/Miwok, etc. Initial consonant correspondences are documented as regular within each of these language pairs, even though they may not be the only ones occurring. S = noted by Sapir as evidence for a "Tsimshian"-Penutian connection.

I. FULL ROOT shared with other languages (= correspondences with both root consonants):

Example 1: PTsim **wel (roots may occur with or without infixed H, cf 3.1.2.)

1) \*welHi > N wil, S, C wail to be, do, act, etc ; esp. to do deeds of war > N hawil, S, C
   haw:I arrow (ha- instr pfHx); N kit-wil-tkw, S, C gitwallkt war-party, warriors
   lit. to go away to "do" (frame kit-...-tkw to move, travel, in order to ...); also N
   wil:tkw, S wil:lakw to treat, handle s. a certain way (esp. to do harm to sbly);
   Ob wil- to fight, eg üx weEl:i:ní they two fight (-i:ní reciprocal suffix);
   Tak wuIX enemy; wilaw arrow,
   Km {wel} kill, slay (pl)

2) \*wel-x > N, ST wálx, CT wál to carry s. on o.'s back ; \*weHI-q > N wilq to transport
   s.pl., older N wilqS, S, C wálxes to walk, go (pl) (lit to be transported, to transport
   self)
   Al wí:x to arrive, come to stop ; wul- to come, end ; wull: arrival, year ;
   Ch -wuIXt [verb] motion up (Boas 592) [rather idea of 'transportation'?] :
   eg a-n-o'-twtx-wuIXt I travel up in canoe [lit. I am transported on water ??]
   Mol (k)wala?ya- to arrive
   Tak will to travel, wiliw/-wilw- to go, run
   Mai wefé- to run
   Km {wil} run (few; four-legged animal)
   Win wan-, wana: to be, move in a direction (note common l/n interchange)
   Mins walNe- to move; move away; move up; change residence
   Yok willi ~ wiyi ~ widi to do, act; wáixo: to pass sth (a house, etc)

3) \*welH-p > N wilp, ST, CT waálp house (-p augment, see V. below)
   Ch Kath. weIX country ; Chin e:"Xam town, ile'e: (< iXe:e: ) country
   (initial w- lost except in Kath; augment -X)
   Tak willí [DK] house
   Mins wa:li: ground,dirt; down; world; area, place; country; out; outside

II. Both FULL and REDUCED (= vowelless) root shared

Example 2: **tseq to come to an end, an edge, a limit, an obstacle, a stop, etc (cf **ts-,
3.1.1.)

A. Full root: **tseq > *tsoq > N tsóq, ST, CT tsóX to camp, stay, live (at a place) (= come to
   a rest) ; *tseq-m > N tsaqam= coming ashore (proclitic); *tseq-eh > N tsaqa=
   across = going all the way over (proclitic); *tseq-x-? > N tsí:Y thwart (in
   canoe)
Ch  c^axal  thwart

B. Reduced root + various suffixes or formatives:  *tsq-ékw > ST tsXákw-T to bring s. ashore (eg people or goods brought by boat); *tsq-eh (??) > ST tsXae- , N sqa= across = in the way, creating an obstacle (proclitic), hence ST tsXar'ís, N sqan'ísT mountain

Al  tsqal-, tsqe:w- (etc.) to approach
tsqam'-  to come to an end;  tsqaml. foggy , tsqamlai:s fog (cf also *ts- in 3.1.1.)
tsí:tsí mountain (cf no q before s; k. instead)

Co  tsqéyif-  to be in edgewise position

Example 3:  **t'ekw moving in a circle : twisting, coiling, whirling, etc

A. Full root:  *t'íkw > N t'íkw, ST, CT t'ák to twist sthg ; *t'éHkw-?, N t'ük'w, G t'ík'w, ST t'í'ik, CT t'ík navel (prob < umbilical cord )

Km  t'oG-s  /t'oq's/ navel

Mai  betök navel

B. Reduced root + suffix:  **t'sêkw-éh > *tk'weh=, N tk'u=, G tkw'i=, ST, CT tXu= around , moving in a circle (proclitic)

Co  t'í:w- to coil

Tak  tgey-  '(a)round'  (base' to many derivatives noticed by Sapi e.g.
    al-tgeyexp  it rolls ;  tglý-al-x-  tears roll down one's face ,etc)
    tgwa:al  to run about, whirl past (S), eg ba:-i:-tgwa:ala'lx  (they) run about

Mai  -tibl- to wind around

Win  kuy-, kuyur:a to roll, go around
    t'íw- curl, t'Ep- roll, flip, twist, turn over, etc

Mib  t'úuilup to be whirling s., to swing s. around ; (note root-final in -l, cf below IV. C.)
    túlja to be walking around s. ; tuulíla hoop, wheel, sthg round ;

NP  [for possible NP correspondences see below IV. C.]

III. REDUCED (= vowelless) root only in Tsim, full root exists in other languages:

Example 4:  *tq' > N tq', q'i-, ST, CT tX- flat > applied against sthg ; N tq'á?tkw to crawl on all fours, lit to flatten oneself ; *tq'át- > N [t]q'átX to patch s., [t]q'até?: to apply patches

The shape tq' suggests older root **t'Vq: roots t'eq/taq/tq(') exist in other languages:

1) N [t]q'al=, ST, CT tXal= flat against, applied right against, added to, sticking to, etc ;

Co  taqIL- to put a belt on, tqawl- to put around (= flat against a rounded object ?)
    tqanL- to strike [w. sthg flat?] (= to club),

Tak  tgeytl! to put about one's middle (eg a belt? > flat against body)

NP  tqa:qalk to join, add, extend (root t:q)

Al  tqa:k- paint , tqualI:ts' pitch

SI  tquil- paint, q'ai:L pitch

Km  nt'ak' be stuck together, glued

Mai  dákk' stick, get stuck; glue, sticky substance

2) stem tq'al + suffix  *-ehH > -i: like > N tq'alí:, ST, CT tXalí:= (direction, motion) upstream (proclitic) (= prob. 'sticking to' the river [when going inland]):
AI tó:qwi upstream
Si tu:qyáau: upstream
CoH t'qai-c^ upstream

3) probably related stem: "t'áX-? > N t'á?, ST, CT t'áa to slap, clap (could be from **t'aq-h-??)

Ch tlEEq, tlEqtEEq to slap
Mib tá?(-)aj to be slapping , tá?jat.i to slap s. (perf.)

IV. FULL and PARTIAL ROOTS: correspondences are found with whole root CVC and both its elements C- and -VC:

Example 5: **qwel rounded shape, rolling motion: in many Pen languages the two elements *qw- and *el are separately associated with rounded shape or circular motion.

A. Full root **qwel: *qwél > N qúl (water, people) to run, (sand, etc) to spill ; *qwéHl > ST qáulk, N glikw to wind, wrap s. around sthg (eg scarf around head) ; orig. pl. N lilkw (w. pl. l- replacing initial q-) > to lace s. , eg shoes (= orig. to wrap [laces] around leggings) ;

1) general meaning of rolling, turning, twisting, wrapping, to be round, etc

AI qá:l- roll , q'es:q'ipaw ball (redup)(-p augment, see V. below)
Cĩ kwíl-to roll , kwílElá:ni: [ocean] continually rolling
we:l-, wi:l- to twist
Tak -kal-p/-kelap- twist (thread) by rolling , -kal-k twirl fire-drill, drill (for fire)
, khalakhal roll (dust or ashes ) over , kelkal fabulous serpent that squeezes people to death [by winding itself around them] (DK)
Kal San wilwilu: round
pšl to roll along (tr.), pšlkpat to roll (tr),
NP Xule roll, q'i:law to turn
hú:Xele roll, as a ball or wheel (cd be a form of redup??)
lk'oli: wrap up , lok'd:il to wrap up, bundle up, roll up, curl up
NS -qala- to roll, -Xwl-, -Xwél- ring, encircle, -q'éli- to bend
Mai kól to roll, kólö- to rotate, ma-kulu wrist (< hand-turn ?)
Mib póolo to be round, spherical; Mics wila- to turn
Win -bil- to turn ; -pwüli- to roll
hawal (string) to be wound, hawila to go round and round

2) meaning associated with rounded objects:

a) rolling objects, objects subjected to rolling motion:

AI tskó:itskó:lau: hoop, wheel (augment ts-, redup + suffix)
Ch L-qula:"*ula egg (reduced root [qw] + stressed suffix, then reduplication);
q > ? Is normal in Chin)
(Ch) Wsh -glaulau "smooth, water-worn stones" (redup < -*qlaul|au with loss of q)
Wsh -klau|au-ks "seeds", -klau|auks "smooth, water-washed stones, gravel"
Mib púulu egg ;
b) rounded body parts (cf also *qw- and -*el, B. and C. below)

- the head or skull

*qwel-x > N qúlx, ST qóḷx, ST qólì skull (esp the round part);  
Si Lkwá'/lw kwat (L- augm.) (L-U. Lkwá'núqU : I'n interchange)  
Qb xwí'luxw, xwelluxw head  
Tak xuUl-l- brains, ù'lóḷk-l- "head-hair"

- the eyes, hence derivatives for functions of the eye:

Ch i-qqe:'lqoe:l (=i qwe:l...) owl (lit eyes ?)(root redup)  
Kal Tu kwhailak, Sa kwhille:k, Yo kwállik eye

Miss wol-Ne to watch, wol:u-cu- to watch, to be looking on,  
Win wine to see (Nis wina:m, ?wini, Patwin weni to see ) (I'n interchange)

B. INITIAL C-

In many languages *qw- (or corresponding C) associated with rounded objects, especially the head and its upper parts (cf A.2.): note *qw < **qew:

*qëhw-s > ST qá:ús, CT qá:ws, N qís hair

Al kwi:t'skuts brains (S)  
Si xwa:'ka head  
Ch Wsh i-kwa'yat/i-gwayat crown of head  
Kal Sa kwa: hair, head, Yo mu:kwa hair, makwa head  
NP wa? on head, on hair  
Km (ac'h) on head, hair

C. FINAL -VC:

1) **-el associated with circular motion, rounded objects

a) **-el round, circular motion as in *qw-*el above, also *y-*el > N yál- turn around, "h-*el > N halhál spinning top; used as formant:

NP -li- around' formant in many stems eg likili; likili: to go around, move around, roll, rotate, move in a circle, place in a circle; likili: (used adverbially) in a circle, all around  
NS -li- turn, around "it is fairly clear that -li-, while never appearing independently, is compounded w a number of elements that precede it; thus, -Xwil-, -sli-, -skli-, -tšli-, -t'skil- and others, each seemingly an old and compact root unit." MJ191  
WP -lal– in áXalalítcón it is rolling along, áúXalalátamika it rolled down hill

*-éHí in *l-éHí-p (w. pl. prefix; -p augment, see below V.) > N llip- eg llip'in to roll, spin sth (eg a ball) (?n- causative), ?antk'ullíplískw whirlpool (?an-tk'u-llíp-óx-s-kw place of-around-roll-?-? ?);  
NP cill:ip to encircle  
clíp:íp hoop, circle; ball, spherical object (like a rock)  
cill:ip to be in a circle; to rotate (intr.), turn about an axis  
[cl-, cl: may correspond to *tk'weh around, etc cf ex. 3--no NP examples there]
Mib túuluup to be whirling s., to swing s. around;

b)***-**el > *?él rounded object esp. eye > surroundings and functions of the eye

**ts'-?éi-? > N ts'él: eye(s), face, ST ts'él face (*ts'- in, into);
**wel-én-?éi, ST willi: eye(s); **leky-én-?éi > ST ligi:l, N ligi'l eyebrows;
CoMl hel face
NP sílu eye, sílméqs matter of the eye (s- augment or root-initial, cf *ts'- ?)
        sílé:w- see, sílèw, sílé:w look, appear
Mai hi'ní eye (n/l interchange)

c) metaphorical meaning: outer-directed inner motion, eg eyes looking, mouth speaking (= direction of attention ?)

- prefix = direction of sight

Ch -?El- eg -?El-kEl, Wsh -GEI-kEl to see
CoH Lix.i:nt he examined it prob from *?al-x:i:nt
Tak al- (= ?al-) eye, face "used to indicate direction of sight";
        eg al-xi:klixa he looked around, al-xi:xí he saw me
Win (-?)eI(-) in, toward, etc.; ?I- to put, set in indicated direction

- stems: *?él-q-?I > N ?állq'al to watch, be a spectator;
  **?él-u: > ?alu:=- visibly, in plain sight, plainly (proclitic)
  all **?él-k-áX > ?álkáX to speak, speech, language, word;

Al ilix- look in, peek; ilu- speak
CoH Ilx look; ilI- speak, send
Km ?a:la:Ya show, point out
Win ?aL-, ?aLa, ?aLma to watch
Pat hin-pa to find (n/l interchange)
Miss hal-pa > to watch, find, hunt
Mib ?élIi to be looking; ?IIma to be looking for s.

d) root-final becomes root-initial: Note that if this final element is associated with an
initial C such as h or ?, the addition of a stressed suffix to the resulting root hel or ?el may
cause loss of the consonant as well as the vowel, thus for instance *?éI-V > IV'. The following
examples, which have meanings similar to those of *qweI and *qw-, are instances of this
process, with reduplication:

Ch lo:lo: round (< **-el-ó:)
Kal Tl lu:lu round
Mol lu:lc egg (-c suffix )
Km loll eye (-p augment, see V. below)

2) Homophonous half-root **-el fire, burn, etc (note this could have the same origin
because of the old method of drilling for fire, but the meaning is different enough to warrant a
separate category):

a) as root-final: (note ST ?aláh, N ?alá smokehole could be from this or the preceding
root)
**kew-él > *kwél-, ST, CT gwalk to burn, N gwálkw to be dry; **m-él > N málkw-T to throw/put s.(sg)[us. not wood] into a fire (**m- cf máq put )

NP ?i:le fire, light, heat; ?i:lélq to become hot; ?i:líw, líw to burn, ?i:líw fire, flame, ?i:lúl'yé because of heat or smoke; ?ílp, ?ílp'ílp to be red; ?ílsburn
?á:la fire; "hell"; ?á:lil to build a fire, light a fire
(similar forms in other lgs too)

- forms corresponding to *kwe:l-

Qo Lkwi:l to burn (augment L- )
CoM kwile?es MS, qwile?es MJ sun ;
Qn c:kwle:šak dried salmon (stem -kwel- )
Tk gül-k! blaze, glow
Kal Sa kwál, TG kw ál:wai to burn, TG kwál:ank ashes (HB)
Costa colko black

- forms corresponding to **kew-el- > palatalization

Qo c:šil- to burn, tclwál fire
Tak al-píl:ls-ts.lúlU-k!- ~ -ts.lúl-k!- set fire to
Kim c:šil-čel?í shining
Win c:šil-, c:šhel to be dried up (food, dead animal)

b) final C as root-initial (**el-V' > "IV", cf section above): **el-*ékw > *lékw > N lákw, ST, CT lák firewood

NP léqeyt small branches of black pine, burns well
lexl:qs weeds; straw; chaff, bits of straw to start fire, kindling
[last meaning is prob. original]
Mi lakah dry cottonwood, firewood (< CC, p.c.)

V. AUGMENT or frozen root, added to root.

Example 6: -p in one place, into place, (in some cases) permanently, repeatedly ??

*wél-H-p > N wílp, ST, CT wél:lp house, *l-él-H-p to roll, (w. pl. prefix) > N lílp-
(IV.C.1.a. above), *lél-p > N lálp to shave sthg (wood, eg in carving, hollowing out bowl, etc), *qaK-p (where K = a Velar or Uvular) > N, ST qá:p- to scratch sthg (eg insect bite), *táK-p > all t'áp to pound on, hammer sthg (eg a nail), etc

Al qá:lp- roll, q'a:q'lpawa ball (redup)
Tak -kal-p/-kalap- twist (thread) by rolling
NP cf:lp to encircle
cilpcilp hoop, circle; ball, spherical object (like a rock)
cilp'ilp to be in a circle; to rotate (intr.), turn about an axis
Km lopl eye
Mib tūulup to be whirling s., to swing s. around; (note root-final in -l, cf. above IV. C.)
REPORT 9

SURVEY OF CALIFORNIA AND OTHER INDIAN LANGUAGES

PROCEEDINGS OF THE HOKAN-PENUTIAN WORKSHOP

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University Of Oregon, Eugene

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INTRODUCTION

The papers in this volume were originally presented at the meetings of the Hokan-Penutian Workshops in Eugene, Oregon, July 8-9, 1994, and in Albuquerque, New Mexico, July 5-6, 1995. The 1994 Workshop was held in conjunction with a two-week invitational conference on Comparative Penutian Linguistics (the proceedings of which will be published in a forthcoming issue of the International Journal of American Linguistics) and was organized by the coordinators of that conference, Scott DeLancey and Victor Golla. The 1995 Workshop was one of a series of meetings on Americanist linguistics that formed part of the 1995 Linguistic Institute at the University of New Mexico, and was organized by Victor Golla under the auspices of SSILA.

A special feature of the 1995 Hokan-Penutian Workshop was a half-day session on the Present Status of Hokan Linguistics specially organized by Margaret Langdon and William H. Jacobsen, Jr. A substantial part of the present volume is given over to Appendices containing the bibliographies and short summaries of pronominal reference and case systems that were prepared for this session. Also included is the draft of a lexicon of Seri, prepared by Stephen A. Marlett and Mary B. Moser for Mary Ritche Key's "Intercontinental Dictionary Series," a lexical database designed to facilitate crosslinguistic research. The format of this database is derived from Carl Darling Buck's Dictionary of Selected Synonyms in the Principal Indo-European Languages.

This is the second volume of Hokan-Penutian Workshop Proceedings to be published by the Department of Linguistics, University of California, Berkeley, as one of the Reports of the Survey of California and Other Indian Languages, under the general editorship of Leanne Hinton.

Victor Golla
Volume Editor
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