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## Proto-Wintun

Alice Shepherd

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This volume represents a reconstruction of Proto-Wintun, the parent language of a group of California Indian languages. It includes a grammatical sketch of Proto-Wintun, cognate sets with reconstructions and an index to the reconstructions. The book fulfills a need for in-depth reconstructions of protolanguages for California Indian language families, both for theoretical purposes and deeper comparison with other proto- or pre-languages.


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Volume 137

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#### Abstract

This volume represents a reconstruction of Proto-Wintun, the parent language of a group of California Indian languages. It includes a grammatical sketch of ProtoWintun, cognate sets with reconstructions and an index to the reconstructions. The book fulfills a need for in-depth reconstructions of proto-languages for California Indian language families, both for theoretical purposes and deeper comparison with other proto- or pre-languages.


## ABBREVIATIONS AND SOURCES

## General Abbreviations

an. $=$ animate
aux. = auxiliary
g. = generic aspect
gen. $=$ genitive case
imp. $=$ imperative
inan. $=$ inanimate
intr. $=$ intransitive
n. = noun
p. = particular aspect
pl. = plural
poss. $=$ possessed
sg. = singular
tr. $=$ transitive
voc. $=$ vocative case

## Proto-Wintun (PW)

$\mathrm{V}=$ unidentified vowel
$\mathrm{C}=$ unidentified consonant
Hyphens in PW forms indicate separately reconstructed morphemes.

## Wintu (W)

W items unmarked as to source are from Pitkin 1984, 1985 and my own fieldnotes. Starred forms listed under W are pre-Wintu reconstructions from Pitkin 1985. E and O are morphophonemes representing the alternations $\mathrm{e} / \mathrm{i}$ and $\mathrm{o} / \mathrm{u}$, respectively.

Other sources are indicated as follows:
C = Curtin 1898
$\mathrm{DL}=$ texts published in translation by Demetracopoulou [Lee] and Du Bois 1932 and Du Bois and Demetracopoulou [Lee] 1931 and microfilms of the Wintu versions of these texts housed at the Survey of California and Other Indian Languages, Department of Linguistics, University of California, Berkeley
M = Merriam 1903-1931

## Nomlaki (N)

Sources are indicated following N as follows:
B = Barrett 1908
$\mathrm{BP}=$ Broadbent and Pitkin 1964
$\mathrm{BW}=$ Blankenship and Wenger 1978
C = Curtis 1924
DK = Dixon and Kroeber 1907
G = Goldsmith 1951
H = Hill 1971
Ha = Hale 1846
J = Johnson in Schoolcraft 1853/1860
K = Kroeber 1932
T-M = Merriam 1903-1931, "Upper Thoms Creek Nomlaki"
G-M = Merriam's materials entitled "Nom-lak'-ke Rancherias between Elder Creek and Grindstone Creek," and "Grindstone Creek field check list"
Noe-W = Whistler 1980, "Noema" Nomlaki
P= Powers 1877 (Chapter XXV, The Wintun)
PS = Pitkin and Shipley 1958
S = Swadesh ca. 1950
SS = Sawyer 1975
W = Whistler 1976c

## Patwin (P)

Forms marked as P are common to all Patwin dialects. Dialects are indicated following the P as follows:
$\mathrm{C}=$ Cortina Hill Patwin
CC = Cache Creek Hill Patwin (aka Rumsey)
$\mathrm{H}=$ all Hill Patwin dialects or unspecified Hill Patwin dialect
$\mathrm{K}=$ Kabalmem Hill Patwin (aka Lodoga)
R = River Patwin
T = Lake County Hill Patwin (aka Tebti)
Forms unmarked as to source are from Whistler 1975-1979, unless otherwise marked as from a particular publication. Other sources are identified as follows:
$B$ and $U$ are from Bright and Ultan 1970, an alphabetized computer printout of lexical items collected in the field by Bright and Ultan. This printout uses the following unexplained abbreviations for dialects: A, H, L, R, T. My best guess is that these may represent: $\mathrm{H}=$ Hill, $\mathrm{L}=$ Lodoga (Whistler's K ), $\mathrm{R}=$ River and $\mathrm{T}=$ Tebti. "A" may represent Cortina Hill Patwin, although I do not know why the letter A was chosen. It does not appear to stand for "all."

Forms marked M are from Merriam 1903-1936.

## South Patwin (SP)

Forms marked SP are from Whistler 1976e or 1980 as indicated. Other forms are marked for source as follows:
A = Arroyo de la Cuesta 1821, using English glosses provided by Golla in a worksheet accompanying Golla 1996.
$\mathrm{G}=$ von Gerolt's retranscription of Arroyo (Gerolt 1830)
M = Merriam's South Patwin vocabulary schedule 1906, 1917
$\mathrm{V}=$ Vocabulary obtained by J. Alden Mason from Platon Vallejo (in Kroeber 1932), using English glosses provided in the worksheet accompanying Golla 1996.

## Comparisons with Other Languages

Resemblances in other languages cited along with reconstructions by no means imply a suggestion of genetic relationship. It is up to the reader to decide if these forms are potentially genetically related, borrowed, diffused, onomatopoetic, or coincidence. No thorough search for resemblances has been conducted. The forms listed are those cited by others in comparative studies or noticed by the author in reading a variety of publications.

Alsea, Hanis, Siuslaw and Wasco comparisons are from Golla 1997 unless otherwise noted.

Uto-Aztecan and Proto-Uto-Aztecan (PUA) forms are from Miller 1967 unless otherwise indicated.

Proto-Mayan (PMy) forms and citations from Mayan daughter languages are from Brown 1990. In these forms, $*^{y}$ represents a palatized apical stop.

Maidun, Miwok, Costanoan and Yokuts forms are from Callaghan 2001 unless otherwise indicated. Callaghan uses the following abbreviations:
Ceb $=$ Northern Costanoan: East Bay (Chocheno)
Csf = Northern Costanoan: San Francisco
Csjb = Southern Costanoan: Mutsun
Cscr $=$ Northern Costanoan: Santa Cruz
PCo = Proto-Costanoan
PCos $=$ Proto-Southern-Costanoan

```
Mie \(=\) Eastern Miwok
Mil = Lake Miwok
Mim = Marin Miwok
Mins \(=\) Northern Sierra Miwok
Mip = Plains Miwok
Mis = Sierra Miwok
\(\mathrm{PMi}=\) Proto-Miwok
PMie \(=\) Proto-Eastern-Miwok
PMis = Proto-Sierra-Miwok
PMiw \(=\) Proto-Western-Miwok
\(\mathrm{PU}=\) Proto-Utian
PY = Proto-Yokuts
PYgen = Proto-General-Yokuts
PYn \(=\) Proto-Northern-Yokuts
PYnim = Proto-Nim-Yokuts
PYnv = Proto-Northern-Valley-Yokuts
PYbv = Proto-Buena-Vista-Yokuts
\(\mathrm{Ykr}=\) Kings River Yokuts
Yn = Northern Yokuts
\(\mathrm{Yv}=\) Valley Yokuts
Mk = Konkaw
Mm = Maidu
\(\mathrm{Mn}=\) Nisenan
\(\mathrm{PM}=\) Proto-Maidun
```


## Symbols Used by Other Sources

C. Hart Merriam uses English spelling with some modifying diacritics for vowels; e.g., $\overline{\mathrm{a}}=[\mathrm{e} \cdot]$, ah $=[\mathrm{a}]$ or $[\mathrm{a} \cdot]$, oo $=[\mathrm{u}]$ or $[\mathrm{u} \cdot], \overline{1}=$ [i]. An apostrophe indicates stress or glottalization depending on placement.

## Nomlaki

Barrett 1908
$\overline{\mathrm{i}}, \overline{\mathrm{e}}, \overline{\mathrm{u}}, \overline{\mathrm{o}}$ represent the corresponding short or long vowels
The exclamation point represents glottalization
$\mathrm{t} \cdot \mathrm{t}$ or $\mathrm{t}^{\mathrm{h}}$
$\mathrm{t} \cdot \mathrm{c}=\mathrm{c} \mathrm{c}$
$\mathrm{L}=1$
$\mathrm{c}=\mathrm{s}$ (Barrett describes his symbol " c " as representing an "open pre-palatal surd ... similar to English sh" (1908: 52). As there is no [š] in Wintun, the symbol is taken to refer to the alveolar fricative [s].

## Blankenship and Wenger 1978

$\mathrm{c}=$ č
$\mathrm{kL}=\mathrm{q}, \mathrm{l}$
$\mathrm{tl}, \mathrm{L}=1$
The symbol " 3 " used in this source to represent short [a] has been replaced with a.

Curtis 1924
$\hat{a}=0$ or $a$
ch $=$ č
$\mathrm{ch}!=$ č
$\mathrm{hl}=\mathrm{l}$
ě $=\mathrm{e}$ (short)
$\mathrm{p} \cdot \mathrm{p}$
$\mathrm{k}=\mathrm{k}$ or q
$\mathrm{k} \cdot \mathrm{q}$
$\mathrm{tl}=\lambda$,
Dixon \& Kroeber 1907
$\mathrm{L}=1$

Goldschmidt 1951
$\mathrm{tc}=\mathrm{c}$ or č'
tc' $=$ c $^{\prime}$
$\mathrm{tl}=\mathrm{ł}$ or $\lambda$,
$\hat{\mathrm{e}}=\mathrm{i} \cdot$ ?
$' t=t$ ' ?
$\hat{\mathrm{e}}=\mathrm{e}$
$\mathrm{khl}=1$
ó=o
$\overline{\mathrm{u}}=\mathrm{u}$.
ŏ $=0$
$\hat{1}=\mathrm{i}$.
$\mathbf{J}=$ Johnson in Schoolcraft 1853/1860
$\mathrm{ch}=$ č
$\mathrm{aw}=\mathrm{o}$
ee $=\mathrm{i}$.

Kroeber 1932
$\mathrm{L}=\neq$

## South Patwin

Arroyo de la Cuesta 1821
$j=h$

$$
\begin{aligned}
& \mathrm{hu}=\mathrm{w} \\
& \mathrm{ch}=\check{\mathrm{c}} \\
& \mathrm{gl}=\mathrm{l} \\
& \mathrm{c}=\mathrm{s}
\end{aligned}
$$

## Arroyo/Gerolt 1830

tsch $=$ č
Mason/Vallejo
tc $=$ č
$\mathrm{v}=\mathrm{u}$ or o?

## 100. THE WINTUN LANGUAGE FAMILY

The Wintun language family consists of four languages, Wintu, Nomlaki, Patwin and South Patwin, whose speakers occupied the west side of the Sacramento River Valley in Northern California and much of the upper Trinity River drainage on the west side of the North Coast Range crest. The long contiguous territory extended from the delta of the Sacramento-San Joaquin river system north of San Francisco Bay to just south of Mt. Shasta. The family's divergence is similar to that of the Romance languages, with a time depth of perhaps 2000-2500 years (for additional discussion, see Whistler 1980: 17).

Wintu, the language of the northernmost group, was originally spoken in Shasta, Trinity, and parts of Siskiyou Counties, along the drainage systems of the upper Sacramento, upper Trinity, and Pit-McCloud rivers. The territory extended from about Cottonwood Creek in the south and the South Fork of the Trinity River in the southwest almost as far as Mt. Shasta in the north and the Trinity Alps in the northwest. The eastern boundary ran close to Cow Creek in the south and farther north extended east almost as far as the present town of Big Bend. The Nomlaki occupied much of present-day Tehama County and part of Glenn County, reaching from the Wintu border in the north approximately as far south as the present town of Princeton. To the south of the Nomlaki, in the southern portion of the Sacramento River Valley, lived the Patwin who occupied present-day Colusa and Yolo Counties, reaching south about as far as Putah Creek and east to approximately the Sutter Buttes area. To their south, in present-day Yolo and Solano Counties, were the South Patwin, also called Suisun, whose territory reached south to the San Pablo Bay and Suisun Bay area. For a detailed discussion of Wintun territorial boundaries, including subgroups, see Whistler 1980: 46-53.

Based on an analysis of animal and plant nomenclature borrowed by the Patwin from the Miwok, Whistler (1977a: 166) concluded that Proto-Wintun must have been spoken in a non-Californian environment, and, based on reconstructible plant and animal nomenclature, proposed that Proto-Wintun was spoken by a people living in interior Northwest California or Southwest Oregon, most likely in the drainage of the upper Rogue River, or possibly in the middle Klamath or South

Umpqua drainages. The additional animal and plant nomenclature reconstructed in this volume does not necessitate a revision of his conclusions.

## 110. Subgroups and Dialects

Each Wintun group recognized several subgroups. The most commonly cited Wintu subdivisions were Upper Sacramento, McCloud, Stillwater, Keswick, French Gulch, Upper Trinity, Hayfork and Bald Hills. It is possible that some of these groups spoke minimally distinct dialects; however, there is little evidence for dialectal variation in the linguistic data that has been preserved. Kroeber (1925: 3534) observed: "From all the evidence available, the language was remarkably uniform for a tract of this vastness, as it may justly be described under California conditions. But the very size of the territory precludes absolute identity of tongue." In my work with two speakers, Renee Coleman (representing the McCloud subgroup) and Grace McKibbin (representing the Hayfork subgroup), I found only one pair of lexical items on which they did not agree, aside from the fact that Grace McKibbin controlled a substantially larger vocabulary: Coleman used sedet for "coyote" and sukuh, a widely distributed areal form, for "dog," while McKibbin used sedet for "dog" and the kenning č'arawah, literally "one of the fields," for "coyote." The major difference between the speech of the two women was intonational. Grace McKibbin's speech differed from that described in Pitkin 1984 (representing primarily the McCloud subgroup) in the absence of hyphen juncture which is defined (ibid., pp. 20-2l) as a transition with the potential of a very brief pause, conditioning unreleased allophones of obstruents and modifying the contour of a phonemic word by shifting the pitch and stress. Only secondary stress may occur on syllables preceding hyphen juncture within a word, i.e., prefixes. In McKibbin's pronunciation, stress is always on the first syllable of a word, even if it is a prefix, with the exception of occasional special emphasis and some exclamation words. Further, in McKibbin's speech, those auxiliaries which are not independent words are never preceded by hyphen juncture, but are treated like suffixes and have undergone contractions as a result. For example, the long vowels of some auxiliary allomorphs, as described by Pitkin (1984: 177-183, 190-191), are usually shortened in McKibbin's speech (e.g., -bo•>-bo; -bo•m>-bom; -ba•da>-bada; -be•>-be; -be•m $>-b e m ;$-be $\cdot$ sken $>$-besken; -bi•da>-bida). The desiderative auxiliary $k O y$ - is often simply $-k a$ in its indicative form (instead of -kuya), -kada in the first person (instead of -kuyada), and -kar in its subordinate form (instead of -kuyar). She usually used a second person marker $-n$ instead of -sken. This could be due to a contraction (e.g., Tibe-sken > Tiben), or an alternate shorter, possibly less formal, form of -sken, perhaps identical with the final $-n$ in -sken. Any dialectal differences between the remaining subgroups were likely just as minor. The difficulty in relying on older records, such as C. Hart Merriam's, for the identification of dialects is that what appear to be differences in pronunciation are really just variations in a non-linguist's recording of the same form. Any dialects or subdialects of Wintu would certainly have represented a dialect continuum.

Of Nomlaki subdivisions, Kroeber (1925: 354) observed: "For the central Wintun one subdivision is known: that of the valley dwellers and the hillmen. But
their dialects were not very different, and there may have existed equal or greater divergences between northern and southern settlements within the group." Whistler (1980: 19-20) listed several other Nomlaki subdivisions: "River Wailaki" or Noema (not to be confused with Athapaskan Wailaki; "Wailaki" is actually of Nomlaki origin, meaning "north talkers"), River Nomlaki (further subdivided into Red Bluff and Tehama), and Hill Nomlaki (further subdivided into Elder Creek, Paskenta, and Grindstone). The location of the Nomlaki between closely-related Wintu to the north and somewhat less closely-related Patwin to the south would have presented the ideal conditions for a dialect continuum, with the northern dialect intermediate between Nomlaki and Wintu and the southern approaching Patwin speech. Whistler (1980) has argued that this may in fact be the case at the northern end, judging from two vocabularies of Noema recorded by H.B. Brown and reprinted in Powers (1877: 520528) as Vocabulary \#4, and by A. Johnson (1852), a version of the "Reading" (Maj. P. Redding) vocabulary, reprinted in Schoolcraft (1860, Vol. 4: 414-415), reprinted in Powers (1877) as Vocabulary \#2. Whistler suggested that these two vocabularies, gathered near the town of Cottonwood on the border of Wintu and Nomlaki territories, although exceedingly fragmentary, seem to indicate a dialect lexically intermediate between Wintu and Nomlaki, leaning slightly more toward Nomlaki. My own examination of these vocabularies, however, indicates that they represent Nomlaki entirely. In general, Nomlaki data is so scarce that any identification of dialects would be mere guesswork. There are distinct isoglosses separating Wintu from Nomlaki, so Nomlaki could not be considered an extension of a Wintu dialect continuum, unless there were intermediate dialects of which all evidence has been lost. However that may be, Wintu and Nomlaki would certainly have been mutually intelligible with little difficulty.

Patwin is divisible into two dialect complexes, Hill Patwin and River Patwin, according to Whistler (1980: 20-21) who further recognizes three dialects within Hill Patwin - Lodoga, Lake County and Southern Hill Patwin (with four subdialects Cortina, Rumsey, Putah, and Napa); and two dialects of River Patwin - Colusa and Grimes. From the vocabulary examined in the process of this reconstruction, it appears that all these dialects were closely related and would certainly have been mutually intelligible. Where more than one dialect is represented in the sets in this volume, approximately half are identical between the dialects. In about four percent of the sets, the only differences between dialects are in vowel length; e.g., CC loyta, young woman; lo•yba, plural; K loyta, girl, loyba, girls; R loyta, a girl (under *lo•y-, adolescent girl; *lo(•)y-ba, plural). About five percent show minor semantic differences; e.g., K čopol, pond, marshy place; R čopol, lake (under *kopol, pond); CC howe, watersnake; T huwe, snake; K howe, gopher snake, R howe, gopher snake, bull snake (under *how, to snake, watersnake). In about another five percent of the sets, the dialects differ in the details of the Patwin obstruent fronting chain, the major isogloss separating Northern from Southern Wintun, e.g., CC and K have doubly fronted a final *k to t in $t^{\prime} i d i \cdot t$, meat of any nut, kernel of any nut, while T has only fronted once to č in $t^{\prime} i d i \cdot c ̌$, meat of any nut (under *č'idik, heart, core); K t'ara $l$, scraper (doubly fronted) vs. R č' $a^{\prime} t^{h} i / u$-, to scratch (under *k'ar-a, scrape). K also shows aspirated $\check{c}^{h}$ from ${ }^{*} \mathrm{k}$ in a number of forms where the other dialects have unaspirated č. See Sections 262-3 for further discussion and examples. About nine
percent of the differences between the P dialects affect plant and animal nomenclature, which is often onomatopoeic or folk-etymologized; e.g., CC, K, T ba•lbalik, butterfly, all butterflies; K also has ba•lbalak, butterfly; K bo•lbolik, poppy, evening primrose, T, CC, C, R poppy, poppies; R walalakai, butterfly (under *bo•lbolVq, butterfly; poppy); CC kudilik, water snake sp.; fast snake sp. that lives on dry ground (not in water); K kudilip, water snake, garter snake var.; R huli•p, snake (any), (under *hulilVk, snake sp.). The approximately 20 percent remaining instances of dialectal variation concern differences in the exact form, meaning, function or order of grammatical morphemes. Since no grammar of Patwin is available, an analysis of these differences is beyond the scope of this volume.

South Patwin may have had a number of dialects; Whistler suggests Knight's Landing, Dixon and Suisun. However, because data is extremely scarce and of very poor quality, it is difficult to tell whether South Patwin was in fact a language in its own right rather than a southern extension of the Patwin dialect continuum, let alone subdividing it into dialects.

Nomlaki and Wintu group together as Northern Wintun, Patwin and South Patwin as Southern Wintun. The isogloss distinguishing Nomlaki from Wintu speech is that Nomlaki seems to have recently lost or, in some instances, replaced the consonant r - "recently" because a few forms still show r and others show variations in how the loss is treated - and has dropped some intervocalic $w$ and y (see Section 253 for details). Southern Wintun speech differs from Northern Wintun phonologically through an obstruent fronting chain (see Sections 261-263). No clear isoglosses are apparent between Patwin and South Patwin; however, some of the South Patwin vocabulary shows additional sound changes not found in Patwin (see Section 265).

## 200. PHONOLOGY

## 210. Regular Sound Correspondences

The following table shows reconstructed phonemes and the regular sound correspondences of the Wintun languages.

Table 1: PW Phonemes and Regular Sound Correspondences

| Likely | PW | Wintu Nomlaki | Patwin | South <br> PW Vatwin |
| :--- | :--- | :--- | :--- | :--- |
| PW Value |  |  |  |  |

Consonants

| Bilabial stops |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unaspirated | *p | p | p | p | p |
| Aspirated | * ${ }^{\text {b }}$ | $\mathrm{p}^{\text {b }}$ | $\mathrm{p}^{\text {h }}$ | $\mathrm{p}^{\text {b }}$ | $\mathrm{p}^{\text {b }}$ |
| Glottalized | *p' | p' | p' | p' | p' |
| Voiced | *b | b | b | b | b |
| Bilabial nasal | *m | m | m | m | m |
| Bilabial semivowel | *W | w | w | w | w |
| Apical stops Unaspirated | *t | t | t | t | t |
| Aspirated | * ${ }^{\text {h }}$ | $\mathrm{t}^{\text {h }}$ | $\mathrm{t}^{\text {h }}$ | $\mathrm{t}^{\text {h }}$ | $\mathrm{t}^{\text {h }}$ |


| Glottalized | $* t^{\prime}$ | $\mathrm{t}^{\prime}$ | $\mathrm{t}^{\prime}$ | $\mathrm{t}^{\prime}$ | $\mathrm{t}^{\prime}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Voiced | *d | d | d | d | d |
| Dental or apical-alveolar nasal | *n | n | n | n | n |
| Dental or apical-alveolar lateral | *1 | 1 | 1 | 1 | 1 |
| Voiceless latera fricative ${ }^{1}$ |  | 1 | 1 | $\downarrow$ | $\ddagger$ |
| Glottalized apical-alveolar affricate ${ }^{1}$ | * $\lambda$, | $\lambda{ }^{\prime}$ | $\lambda$ ' | $\lambda$ ' | $\lambda$ ' |
| Voiced trill or flap | *r | r | y, Ø | r | r, y |

Alveolar
fricative $\quad *_{\mathrm{S}} \quad \mathrm{s} \quad \mathrm{s} \quad \mathrm{s} \quad \mathrm{s}$

| Palatal affricates |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unaspirated ${ }^{2}$ | *č | č | c | t | t |
| Aspirated ${ }^{2}$ | $*{ }^{\text {ch }}$ | č | č | $\mathrm{t}^{\text {b }}$ | $\mathrm{t}^{\text {h }}$ |
| Glottalized | *č' | č' | č' | t' | t' |


| Palatal semivowel | *y | y | y | y | y |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Velar stops |  |  |  |  |  |
| Unaspirated | *k | k | k | č | č |
| Aspirated ${ }^{3}$ | $*{ }^{\text {h }}$ | k | $\mathrm{k}, \mathrm{k}^{\mathrm{h}}$ (?) | $\check{c h}^{\text {h }}$ | $\check{c h}^{\text {h }}$ |
| Glottalized | *k' | k' | k' | č' | č' |
| Velar fricative |  |  |  |  |  |
| Voiceless | * ${ }^{\text {x }}$ | x | $\mathrm{k}^{\mathrm{h}}$ | S | S |


| Post-velar stops |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unaspirated | *q | q | q | k | k |
| Aspirated | * $\mathrm{q}^{\text {b }}$ | $\mathrm{x}^{4}$ | $\mathrm{q}^{\mathrm{h}}, \mathrm{k}^{\mathrm{h}}, \mathrm{x}(?)$ | $\mathrm{k}^{\text {h }}$ | $\mathrm{k}^{\text {h }}$ |
| Glottalized | *q' | q' | q' | k' | k' |
| Post-velar fricative |  |  |  |  |  |
| Voiceless ${ }^{4}$ | * ${ }^{\text {¢ }}$ | x | $\mathrm{k}^{\mathrm{h}}$ | h |  |
| Glottal stop | *? | $?$ | $?$ | $?$ | $?$ |
| Glottal spirant | *h | h | h | h | h |
| Vowels |  |  |  |  |  |
| High-front unrounded |  |  |  |  |  |
| Short | *i | i | i | i | i |
| Long | * ${ }_{\text {i }}$. | 1. | i. | $1 \cdot$ | 1. |
| Mid-front unrounded |  |  |  |  |  |
| Short | *e | e | e | e | e |
| Long | *e. | e• | e. | e. | e• |
| Low-central unrounded |  |  |  |  |  |
| Short | *a | a | a | a | a |
| Long | *a. | a. | a. | a. | a. |

Mid-back rounded

| Short $*_{0}$ | 0 | 0 | 0 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Long $*_{0}$ | 0. | 0 | 0. | 0. |

High-back rounded
Short *u
u u
u
u

Long ${ }^{*} \mathrm{u} \cdot \mathrm{u} \cdot \mathrm{u} \cdot \mathrm{u} \cdot \mathrm{u}$
Notes to table:
${ }^{1}$ The pronunciation of *ł may have alternated between a voiceless lateral fricative and a laterally-released affricate [t $]$ ]. * $\lambda$ ' was also laterally released.
${ }^{2}$ The W and N reflexes are slightly aspirated.
${ }^{3} \mathrm{~W} \mathrm{k}$ is slightly aspirated. Nk and $\mathrm{k}^{\mathrm{h}}$ are probably not phonemically distinct.


#### Abstract

${ }^{4}$ The reconstruction of the post-velar fricative is very tentative, based on only four somewhat questionable sets (*xad, *xah/*xir, *xos-a, *xoh), the last of which may be unreliable due to sound symbolism. N is only represented in one of these sets and the recording is unreliable phonetically. If * $x$ did not exist, these sets would be reconstructed with * $\mathrm{q}^{\mathrm{h}}$ instead and the P reflex h interpreted as an exception to the regular $\mathrm{k}^{\mathrm{h}}$ reflex.


## 220. Restrictions on Distribution of Phonemes

The plain voiceless stops ( $\left.{ }^{\mathrm{p}},{ }^{*} \mathrm{t}, * \mathrm{k}, * \mathrm{q}\right)$, voiceless continuants (*) *s, *h), voiced continuants $(* \mathrm{w}, * 1, * y)$ and nasals $\left({ }^{*} \mathrm{~m}, * \mathrm{n}\right)$ occur both initially and finally in syllables and words. All other consonants except *r are limited to word- and syllableinitial pre-vocalic position. ${ }^{*} \mathrm{r}$ is the only consonant that does not occur wordinitially, but may occur syllable-initially; it also does not occur word-finally except perhaps in *-r (see Section 424.8).

## 230. Vowel Length

PW vowel length before continuants appears to be non-distinctive in many instances. E.g., *ट̌h $a(\cdot) y$, grandchild; *lo( $\cdot) l$, tobacco; *lo(•)y-ba, adolescent girls; ${ }^{*} m e(\cdot) m$, water; *pano(•)t, three; *pene(•)l, black oak acorn; *p'u(•)r, *p'u(•)l, wild onion; *qo( $\cdot) l$, mouth. In one example, length may be distinctive before a continuant, but perhaps only because it is accompanied by a difference in vowel quality: *bo•l-e, (tell a) tale - *bal-Ra, tell a lie. Before stops, iterative or distributive meaning can be assigned to length in a few cases. E.g., *č' $e b-a \cdot$ to scrape, scratch - *č' $i \cdot b-a$, shave off with sweeping motion; *čh $e p$, hit $-{ }^{*} c^{h} e \cdot p$, hit repeatedly; * $q^{h} o p$, stripe $-{ }^{*} q^{h} o \cdot p$, striped, many stripes.

In some instances, length appears to be a fossilized remnant of an earlier derivational process in which length was either added to modify meaning or dropped in the process of adding a suffix. E.g.,
*č' $e \cdot k$, rope - *č'aq- $a$, hang, *čh $a q$, net
${ }^{*} s e \cdot k$, root - *seke , pubic hair
*ne•r, alike - *ney, alone
${ }^{*} k^{h} i \cdot l$, thorn $-k^{\prime} i l-i$, horn
In some cases, length reflects a lost consonant. E.g. *-e•l, *-el, locative (from the free form *?el, in horizontally); *-a, realis mode suffix (from the auxiliary *-? $a$, have); *-e., let's (from *wer, come); *ba , eat (perhaps < *ba- + *- ${ }^{*} a$ ); *ła , sit (perhaps $<{ }^{*} \nmid a-+{ }^{*}-7 a$ ).

## 240. Sound Changes: Wintu

## 241. Obstruent Merging

W has merged $* \mathrm{k}$ and ${ }^{*} \mathrm{k}^{\mathrm{h}}$ as k , and $* \mathrm{c}$ and ${ }^{*} \check{\mathrm{c}}^{\mathrm{h}}$ as č, respectively, which initially represent $\left[\mathrm{k}^{\mathrm{h}}\right]$ and $\left[\check{c}^{\mathrm{h}}\right]$.

## 242. Frication

In $\mathrm{W},{ }^{*} \mathrm{q}^{\mathrm{h}}$ has become x . If the post-velar fricative ${ }^{*} \mathrm{x}$ is reconstructible, W has merged its reflex with that of $* q^{h}$ as $x$.

## 243. Ablaut

W has developed a system of root vowel ablaut in verbs. W root vowels e and o , reflexes of ${ }^{*} \mathrm{e}$ and ${ }^{*} \mathrm{o}$, are raised in the process of stem formation to i and u preceding a single consonant followed by a low vowel $/ \mathrm{a} / \mathrm{or} / \mathrm{a} \cdot /$ in the next syllable, but remain e and o elsewhere. Synchronically, the alternations i/e and u/o are represented by the morphophonemes E and O, respectively. The a or a• in the next syllable is always either the indicative stem suffix ( $-\mathrm{a},-\mathrm{a} \cdot$ from $*-a, *-a \cdot$ ) or the a of stative -al.

Examples are:
*bol-a, drink > W bula, to drink, but bol-, imperative stem
*čh ep, hit > W čipa, to hit, whip; but čep, throw! hit!
*č'ok-i/u, chew > W č'ukar, to chew; but nominal stem č'oki, imperative stem č'oku *dek, climb, step > W dika, to climb, step; but imperative stem dekma, to cause to climb
*dol, put long object around $>\mathrm{W}$ dula , to tie, wrap string; but imperative and nominal stems dol-
*hen, arrive $>\mathrm{W}$ hina, to arrive, come here; but imperative and nominal stems hen*het, sudden escape of water $>\mathrm{W}$ hital, water having broken through dam; but hete $y a$, all coming out in places
*koy-i/u, hurt, sick, want > W kuya', to be sick, suffer; but imperative and nominal stems koy-
*lom-u, place a sling > W luma', to be baited; but lomuma', to bait, Rel-lomča, to tie a sling around
*łel-e, weave > W łila, to weave; łel, weave! łeles, weaving
*qor-i/u, grind > W qura•, to grind; but imperative/nominal stems qori/u-; nep qori, meal of pounded grasshoppers
${ }^{*} q^{h} e p$, beard, whiskers (particularly of fish) $>\mathrm{W}$ xipa , to have a fish-head feast; but xep, fish head; xepes, head of suckerfish or sturgeon (which have whiskers)
${ }^{*} q^{h}$ et-a, throw solids $>\mathrm{W}$ x̣ita, to throw solids; but imperative and nominal stems xet-
${ }^{*}$ sob-č ${ }^{h}-u$-, ${ }^{*}$ sob-a/i/u-, pull off $>\mathrm{W}$ supa, to take off, slip off; pat-sopča, to slip out; sopna , to take off all clothes
*tob-i, spike > W tubar, raise, i.e., grow in the earth; tobit, that which is raised/grown; ?ol-tubas, stump
*t'op, be sharp > W t'upa', to stick with something sharp, get shot; t'opča, to sting
*wer, come $>\mathrm{W}$ wira, to come; but imperative and nominal stems wer-
*yet, name $>\mathrm{W}$ yiča, to call by name; yet, name
In a few cases, W has also raised the vowel before the indicative suffix $-e,-e$. and the stative suffix -el, probably by analogy. E.g., *leh-, glide by > W lihel, to pass; but lehekta, to pass someone on one's way
${ }^{*} q^{h} e r$, scrape $>\mathrm{W}$ xire , to shave, carve; but $x e(\cdot) r$, flour
It is also possible that the e-i alternation in these cases already existed in PW.
In some cases, W has either lowered a vowel by analogy, or the alternation between high and mid vowel was already present in PW. E.g.,
*liw, fan, wave, gesture (cf. *lew, vibrate, oscillate) > W liwa', liwe', to fan, but xunle wa, to wave to someone to come; se-lewna, to fan oneself. Patwin only has reflexes in i.
*yiłma, heavy > W yiłe, be loaded with heavy packs; yeł-, imperative stem; but yitma, to be heavy

In the following cases, P shares both high and mid vowels with W , making it likely that the alternation already existed in PW:
*moy, *тиу, bend $>\mathrm{W}$ se-mиус̌a, to bend around; moyi•ya, to smile; pantimoy, bone behind upper teeth and lip: PCC moyi/u, angry; PA-U muy? $a$-, cranky
*non, *nun, pronged, joined > W nOn-, prongs, pronged, join, joint; Rel-nonči, joint; Tel-nunalas, joint of the body; noni, prongs of spear; PH, R nun, bow, gun
${ }^{*}$ sew, ${ }^{*}$ siw, pack > W siwa', to pack, stuff, sack; sew-, imperative stem; siwiy, siwih, testicles; PH-B siw, food-pit, K siwi, testicles; R sewo ro, putting things away, caching

Since the development of W ablaut amounts largely to vowel raising before indicative $-a /-a$, it is possible that it began in this context with the merger of realis *- $a /-a \cdot$ with the auxiliary ${ }^{*}-$ ? $a$, have. Note the following two reconstructions:
*koy-i-?a, hurt, sick, want > W kuya , to be sick, suffer; PR čoyi?a, sick
*yor-i-?a, send after, direct to $>\mathrm{W}$ yura•, to send someone after something,
hire; yo( $\cdot$ )runa $\cdot$, to work; PCC, PK and PR yori?a-, work
Assuming that ${ }^{*}-7 a$ is in fact reconstructible in these forms, rather than being a P innovation, W would have changed *koyi?a to kuya and *yori?a to yura. In other words, the height of the root vowel incorporated the following high vowel i (of the nominalizing/neutral mode suffix ${ }^{*}-i$, which was lost in the process. The final -a was then lengthened to reflect the lost glottal stop and perhaps the lost vowel as well. W vowel raising may have begun with forms such as these and then spread by analogy to all roots with vowels e and o when followed by indicative $-a /-a$, a suffix which originated (perhaps in pre-PW times) from *-? $a$. Finally, vowel raising would have spread to roots followed by stative $-a l$ and some roots followed by indicative $-e /$ $e$.

Since PW already had forms with variant root vowels, development of a full system of ablaut in W was just a short step away. Further, Whistler (1980: 111) observed an instance of raising of e to i before a in River Patwin in the kinterm $t^{h}$ ira•n, sister's husband (cf. Hill Patwin $t^{h}$ era•n), and (ibid. 208) raising of e to i after a in Hill Patwin ma-ni•n, your mother (cf. ?uy-ne•n, his, her mother). These may exemplify drift.

## 250. Sound Changes: Nomlaki

## 251. Obstruent Merging

N probably shared the obstruent merging changes listed under W , but the recordings are too few to be certain.

## 252. Defrication

N appears to have shared the P defrication of $\mathrm{X}_{\mathrm{x}}$ to $\mathrm{k}^{\mathrm{h}}$, but the representative forms are few and not entirely reliable phonetically. If *x is reconstructible and one N form may be considered evidence (*xad), *x has also become $\mathrm{k}^{\mathrm{h}}$.

## 253. Loss of r, w, y

Nomlaki loses *r, with or without replacement, as follows:
Intervocalic ${ }^{r}$ r is dropped and the vowels contracted into a long vowel or a diphthong:
*čh ${ }^{\text {iri }} \cdot k$-, fear, *čh ${ }^{\text {iri }} \cdot \mathrm{kuma}$, to scare someone $>\mathrm{N}-\mathrm{BW}$ čIktu-, fear, be scared by (via *čh ${ }^{\text {irik-tu) }}$

* $k^{h}$ erek, spider $>\mathrm{N}-\mathrm{M} k \overline{\mathrm{a}} k$, spider (presumably representing [ke•k])
*koro, net > N-B kōma, dipnet (presumably representing [ko•ma] via *koroma)
*k'urey, young boy $>\mathrm{N}-\mathrm{C}$ nět=kui, my nephew
*moroq, move > N-B pōmōkō, earthquake (representing [po•m mo•qo] via *po•m moroqo)
*nur, salmon > N-B $n \bar{u} t$, salmon, but N-J nu rut, salmon
*puri, dark > N-G pu:itber, third-quarter moon, moon won't be up until late (but note the final -r)
${ }^{*} q^{h}$ or, growl $>\mathrm{N}-\mathrm{BW} q^{\prime}$ Ota'-, q'ota-, snore (via * $q^{h}$ orota)
*sir-i, copulate $>$ N-G si•pa, vulgar word for sexual intercourse (via *siripa, with benefactive)
*surut, strap, tumpline > NT-M soot', carrying band for head (representing [su•t] < *surut)

An exception is *č 'aro $\cdot q(i)$, grass, green > NG-M chi'-yok', grass (any), C cha-yó-ka, green, most likely because ao does not make an acceptable diphthong.

Morpheme-final *r becomes y:
*čh $h \cdot r$, fish sp. > N-S ciit, fish; N-SS čiyet, fish (cf. W či $\cdot r u t$, sucker sp. or carp)
*hur-u, sew > N-S huya, sew; BW huyut-, sew
*xurxur, sugar > N-BW kUykut, kUikUt, sugar
*par, full > N-M pah-yahk', full (representing [payak] or [payaq)
${ }^{*} p^{h} u(\cdot) r-u$, breathe $>\mathrm{N}-\mathrm{S}$ phuyna, breathe
*č 'ur ? calf > N-C chú-i, leg
*nor, south $>$ N-G noy, south (perhaps in analogy with way, north (N-G wai)
*pur, third person singular inalienable possessive and genitive $>\mathrm{N}-\mathrm{W}$ puy, third person singular genitive
*yeme, trail > N-H yemey, road (cf. W yemer, trail, road)
*qir, pull> N-S qii, pull
*qor-i, meal > N-B kōī, pinole, meal
*tir-i, belt $>$ NT-M te, belt worn by men or women (presumably representing [ti•]< *tiyi < *tiri)
*wer, come > N- J wey, to come; G weyam, did you come (greeting); BW win boya wea', lots of men are coming

The case of *ser-panoł, six $>$ N-DK se-panoł, six, may not be a case of dropping *r, but rather a case of replacement of *ser with the prefix se-, probably shared with W where it means "distributively, with both hands." W also varies sepanuł and serpanuł for "six."
*ler, cricket > N-BW lith, grasshopper, may indicate that N, like W, used a pronunciation of $[\theta]$ for $r$ followed by particular aspect $h$.

In three cases, intervocalic $r$ may have been replaced by $d$, but since the pronunciation of $r$ and $d$ is similar intervocalically and the recordings not phonetically reliable, it is more likely that " $d$ " represents $r$, particulaly since two sets list alternate recordings in r :
${ }^{*} p^{h} e r$-, louse $>$ NG-M ped'-de, gray back; T-M ped-dem, larger wasp, but note N-B perem, yellow jacket
*tarak, woodpecker sp. > N-BW tadatat, woodchuck; but again: N-B tōratat, redheaded woodpecker
*t'arara ? *č 'arara ? kingfisher > NGT-M chă-dah'-dahk', kingfisher
The same may be true for *p'uri, reciprocal > N-C -pu-di in $d \bar{u} r$ '-yu-pu-di, gift dance [give-reciprocal-nominal], which at the same time introduced an $r$ not present in the proto-form (*doy-), perhaps through hypercorrection.

Medial r may have been replaced by 1 in one example, unless misrecorded for r : *her, help > N-BW 2Elhilci/u-, help

Perhaps by analogy, some intervocalic w and y are also dropped:
*qewel, house > N-PS $k \cdot e l$, house, BW qel, house, T-M $k$ ā '-el, house; but: G keweł, place, kêwêl, village. Merriam's recording may represent an intermediate stage in the dropping of intervocalic w.
*?ewet, proximal third person singular objective $>$ N-J et, that
*payi $\cdot \nrightarrow$, seed plant sp. $>$ N-G $p a \cdot \nrightarrow$, upright bush with fine pods
*p $p^{h}$ oyoq, head $>\mathrm{N}-\mathrm{W} p^{h} o q$, head
*puyelti, in the east + *pom, ground $>$ peltipom, way to the east
In one example, final -y is dropped:
${ }^{*} \check{c}^{h} a(\cdot) y$, grandchild: N-W če $(\cdot)$, grandchild; but Blankenship and Wenger record both -c'ey and ce'.

## 260. Sound Changes: Patwin and South Patwin

## 261. Obstruent Fronting Chain

The major divergence from the mostly identical reflexes is the obstruent fronting chain common to Southern Wintun (Patwin and South Patwin):

| PW | Wintu | Nomlaki | Patwin | South Patwin |
| :---: | :---: | :---: | :---: | :---: |
| *č | č | č | t | t |
| $*{ }^{\text {ch }}$ | č | č | $\mathrm{t}^{\text {b }}$ | $\mathrm{t}^{\text {b }}$ |
| *č' | č' | č' | t' | t' |
| *k | k | k | č | č |
| $*{ }^{\text {h }}$ | k | $\mathrm{k}, \mathrm{k}^{\mathrm{h}}$ (?) | $\check{c h}^{\text {h }}$ | $\check{c c}^{\text {h }}$ |
| * ${ }^{\prime}$ | k' | k' | č' | č' |
| *x | x | $\mathrm{k}^{\text {h }}$ | S | S |
| *q | q | q | k | k |
| * ${ }^{\text {h }}$ | x | $\mathrm{q}^{\mathrm{h}}, \mathrm{k}^{\mathrm{h}}, \mathrm{x}(?)$ | $\mathrm{k}^{\text {h }}$ | $\mathrm{k}^{\text {h }}$ |
| *q' | q' | q' | k' | k' |
| * ${ }^{\text {x }}$ | x | $\mathrm{k}^{\mathrm{h}}$ | h |  |

If PW *x existed, its P reflex h is of course not fronted. It is possible that a fronting of ${ }^{\mathrm{x}}$ originally resulted in P x , which was then replaced by h rather than merged with s from PW *x.

## 262. PK Aspiration

In almost all sets with initial $* \mathrm{k}$, PK shows aspirated $\check{c}^{h}$ where the other P dialects have the regular unaspirated obstruent. This may mean that K was in the process of merging č with č ${ }^{\text {h }}$. See the sets under: *kay-i/u, shame; *kel-, far, travel; *kik-i, frost; *kol-i, something joined, added on to perimeter; *koro, net; *koy-i/u, *koy-i-?a, hurt, sick, want.

## 263. Exceptions to Fronting Chain

It is within this fronting chain that most exceptions to regular correspondences occur. They include items not fronted, doubly fronted items, interchange of glottalized and unglottalized consonants, and others. Many of the exceptions occur in animal names, cultural terms, and sound-symbolic and areal items. Exceptions cut across dialectal boundaries.

Exceptions to the fronting chain affect all consonants involved in fronting:
*č

Not fronted:
*k'eč-, yellowjacket: PCC, K, T t'ečew, K t'eč ${ }^{h} e \cdot m a n, ~ t ' e c ̌ h e m e n, ~ t ' e s e \cdot m e n, ~ P R ~$ t'ečew, yellowjacket
*q'učul, worm sp.: PK $k^{\prime} u$ čh $^{h} a y$, small black flying beetle sp., $k$ ' $u u c ̌$ 'ay, worm sp., PR k'oč'ol, k'očol, acorn worm
${ }^{\text {sičc } i / u, ~ d r i l l: ~ P C C ~ s i c ̌ ~} ’ i / u$-, to drill, K sič ${ }^{h} i / u$, to drill
*t'ač, split/slit two halves: PCC $t$ 'ači, abalone shell pendants. Compare regularly fronted PR t'etaho, to split open a fish, $<\mathrm{PW}{ }^{*} t$ 'eč $a$, slice
*č ${ }^{\text {h }}$
Not fronted:

*čch $u r$, twins: PCC has regular $t^{h} u d u m$, twins, while PK has č ${ }^{h} u r u \cdot{ }^{h}{ }^{h} u r u$, twins
Other irregularities affecting $*{ }^{\text {č }}$ and č $^{\text {ch }}$
*čala, good: PR has irregular t'ala sem, right hand, as well as regular talo ma, to measure, straighten something out, and talo $\cdot$, straight
*čuka, approach: PCC and PR have regular -tuka, as well as irregular -t'uka, toward
${ }^{*} \breve{c}^{h} a \cdot h a y$, gray hair: PK has regular $t^{h} a \cdot s a y$, gray hair, as well as $t^{\prime} a \cdot s a y$, gray (hair or whiskers)

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č'
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Not fronted:
*č'aro•q(i), grass, green: SP-V has tcalo' $k^{\cdot}$, yellow, and SP-M has chul-lo'-ke, chal-lo'-ke, white
*č'ayi $(\cdot) k$, scrub jay: PCC č'ayi $\cdot t$, scrub jay, any bluejay, jaybird; K č'ayi $\cdot t$, scrub jay, T č'ayi(•)t, scrub jay; PR č'ayč'ayt, č'ayit, scrub jay. SP-M has si-ē' 'ch, California jay
*č'ekey, hair: while PCC and PR have regularly fronted $t^{\prime} e c^{h} e y$ and $t^{\prime} e \check{c}^{h} e$, respectively, the following occur not fronted: PCC si•nč'ekey, eyebrow, PK sinčh $h k a y$, eyebrow, PR si•nč ’ikiy, eyebrow, PA-U sinč'ikay, eyebrows, and SP-G sincheke, eyebrow. However SP-A has backed sinkeke, eyebrow, perhaps in a desire to reduplicate
*č 'iw, hull: PH-U has unfronted č'iwi lma, dogwood top frame for pounding acorns *č 'i-, red-shafted yellowhammer, flicker: PR has č'iya $(\cdot) k$, red-shafted flicker and SP has č'iyak, red-tailed hawk, both folk-etymologized to mean "old man"
*č'oki/u, chew: PK č'oki $/ u$, chew, PR č'ok ${ }^{h} i / u$, chew (neither the initial nor the medial consonant are fronted)
*č 'oł- ? *č 'oh- ? flow: PK č'ołi/u, flow, water to run
*č'on, kick: regular PCC and $\mathrm{K} t^{h}$ onpa, kick (with benefactive), alongside K č'uninyali, dam (beaver or manmade), "kick the water back"
*č'oq, dry and stiff: PK has č $\check{c}^{h} o \check{c}^{h}$ ?aro, cramped and PR has čoč ${ }^{h} e$ ?aro, he has cramps, both with unfronted intial (minus glottalization) and doubly fronted medial *č'ow, Western bluebird ?: PK č'owkoč'owko, bluebird, č'okoč'oko, Western bluebird; L č'owk ${ }^{h}$, little bluebird; P-M, cho kees', bluebird, and SP-M cho'-kah, bluebird
*č 'ur-, *č 'uru( $C$ )č 'uru( $C$ ), cricket: PR č'urumč'urum, cricket

## Other irregularities affecting č':

*č ’idok, narrow-waisted: PCC pu•suduk, PK pu•sidik, SP-M poo'-so-look, dragonfly *č 'il, black bear: PCC silay, (black) bear, bear of any kind, caterpillar; PR-B selay, bear; K t'ilo ki silay, silti silay, black bear; silay, bear of any kind; but also regular t'ilo $k i$, black bear, equal to t'ilo $k i$, dark, from *č'il, black
*č 'ulaq, bush sp.: PCC, PC tholak, steeple bush
*č 'upu, wade: PCC, PR $t^{h} u p u$-, wade
*č'ur-, *č'uru $(C)$ č'uruC, cricket: PK and T have fronted, but dropped the glottalization in PK tures, big brown grasshopper, and K and T tortor, cricket, while PR has not fronted (see above)
*k
Not fronted:
*kalay, gap: PK shows kalay, hole (instead of *čalay), as well as taluk, gap, pass (doubly fronted)
*kaw, basket (mortar): PCC and PK show kawi, mortar basket (instead of *čawi)
*kimu $\cdot r$, rumble, roar: PCC has kimi, thunder; PK $k^{h} i m i / u-$; PR kimi $\cdot r-$, thunder
*ku, small, child: PK and PT show k'uču•n, small, little, and PCC and PR also have forms in $k$ '. SP shows $k$ in Merriam's spelling which may represent $k$ or $k$ '.
*kudu• ?, great horned owl: PK, PT, PCC and PR all show toko•k, burrowing owl, with metathesis

And medial:
*čuka, approach: PK -toka, -tuka, against; CC -tuka, -t'uka, toward; PR -t'uka, -tuka, against, toward
*č'oki/u, chew: PK č'oki/u, chew; PR č'ok ${ }^{h} i / u$, chew
*wuk, nod: PCC wu•ki/u-, to nod; cf. also PCC wudbaya, to nod head forward and back

PCC, $\mathrm{K}, \mathrm{R}$, and sometimes T, do not allow final č, so double fronting occurs in:
*č 'e $\cdot k$, rope $>$ PH-U, PT-U, PR-B $t$ ' $e \cdot t$, rope
*č'idik, heart, core > PCC and K t'idi $\cdot t$, meat of any nut, kernel of any nut, PK t'idit, eyeball, but $\mathrm{T} t^{\prime} i d i \cdot$ č, meat (of any nut)
*č ' $i \cdot k$, rough skin $>\mathrm{PCC}$ and $\mathrm{K} t^{\prime} i \cdot t$, scab, sore; $\mathrm{PR}-\mathrm{B} t^{\prime} i \cdot t$, sore
$*_{c ̌ \prime} \quad u d u k$, woodpecker sp., sapsucker sp. > PR $t^{\prime} u d u t t^{h} u$, red-breasted sapsucker, woodpecker
${ }^{*} s e \cdot k$, root: PCC $s e \cdot t$, root (for baskets), PK se•t, basket root; K, T se•t, tulare root; PR se•t, tulare root; however, SP-M has regular sětch', root
*tarak, woodpecker sp.: PCC, K, T tara•t, acorn woodpecker, and other P dialectal forms

* $\lambda$ ' $u k$, worm: PCC $\lambda$ ' $u t$, cutworms; T worm sp. (cutworm ?)
*Tirik, ash tree: PT Tirit, tree ash, PR-B Teret, ash tree
PT varies final t with č in: $p^{h} u t, p^{h} u c ̌$, ashes, dust $<\mathrm{PW}{ }^{*} p^{h} u k$, *buk, ashes, dust, while PK and PR allow only -t in $p^{h} u t$, ashes, dust

Sometimes a final č is avoided by not fronting at all:
*č ' $i \cdot k$, rough skin $>\mathrm{PK} t$ ' $i k$, scales (fish or reptile)
*xok, basket type: PCC $2 o \cdot k$, any basket, small chokemouth bowl; K small basket, basket for drinking soup; PR $7 o \cdot k$, small, chokemouth globular bowl (with dropping of initial consonant)
*sak, pine sp.: PR čusak, pine
*si•k, barn owl: PK, T, R si•k, barn owl
${ }^{*}$ somVk, thighs, hip: PH somak, hip, H-B, T-B somok, hipbone
*wik, burrowing owl: PK wik, burrowing owl
*yok, meadowlark: PR hayu•k, Western meadowlark
*č'idok, narrow-waisted: PCC pu•suduk, PK pu•sidik, and SP-M poo'-so-look, dragonfly (with other irregularities)

In some cases, a medial ${ }^{*} \mathrm{k}$ is not fronted or doubly fronted. For example:
*dek, climb, step: PCC, R deč-, det-, to climb; H hale detmu, I'm going to climb it; PR č 'anda $\cdot k$, step over
*dok, neck ?: PT do•kuro, stick head out
*kuk, to bend: PH-B ču $\cdot k i$, to bow, PR-B, č $u \cdot k o$, to bow
*lik-, hawk sp.: PR likki? Swainson's hawk
*mu( $) k u$, turtle-shell shaped: PCC $m u \cdot k i / u$, to lie on one's stomach
*sik, polish: PT-U sikohos pi?, he's polishing something
*sokok, cocoon rattle: PH soko•kay, rattle; H-B sokokay, cocoon; PR sok'ot, sokot, cocoon rattle (possibly a loan)
*tek, light: PCC te $\cdot k i$, sunshine, light
*thačh $i$, dump (granulated solids?): PK $t^{h} a t t^{h} i / u$-, dump (out); perhaps *k $>$ č $>\mathrm{t}$ assimilated to following $\mathrm{t}^{\mathrm{h}}$
*t'ok, spot: PK t'oki, one spot; t'oku•ro bo•s, spotted, freckled

* $\lambda$ ' $i k$, dull (of senses): PCC $\lambda$ ' $i \cdot k i$, pain has gone down
*wuk, nod: PCC wu•ki/u, to nod
*sa•q-k'ur- ? rainbow: Regular PR-B, PH-B sakč'orel, rainbow, but double-fronted PK sa•k t'uri $\cdot l$, rainbow
*heke, where: PCC hekuła, when, where; PR hekeła, where, anywhere
*heket, which specific one: PR-U heketta, which one? Note, however, that in the last two examples, k is not part of the root $\left(* \mathrm{he},{ }^{*} \mathrm{hi}\right)$, which may contribute to the absence of fronting

Doubly fronted:
*kalay, gap: PK shows kalay, hole (instead of *čalay), as well as doubly fronted taluk, gap, pass
*kip, headband: PK has tipilis, headband
${ }^{*}{ }^{\text {h }}$
Not fronted:
${ }^{*} k^{h} e n,{ }^{*} k^{h} e n t i$, down: SP-A has kentielan, eight, while PCC, PK and PR have č ${ }^{h}$ enti *kuku, grizzly ?: PR čuk ${ }^{h} u y$, bear, grizzly bear

Doubly fronted:

* $k^{h} e t$, trip: PCC shows $t^{h} e t^{h} u r h o$, to stagger

Not fronted:
*k'a-, snap: PH-U shows sem k'a•tsa?amaro, snap fingers
*k'ah-i/u, wind: PR shows k'ahu•ro, big wind blowing, as well as doubly fronted t'ahi, wind (strong), gale
*k'ar-a, scrape: PCC shows k'ara $(\cdot)$ si/u-, to scratch; k'ara( $\cdot$ ), mow, cut off little bush, cut off the ends of
*k'ay, rodent sp. ?: PCC, T, K and R all show $k$ 'ay
*k'eni, winnower: PCC and K have $k$ 'eni (not fronted), winnowing basket; SP-M has ten-ne'-che, circular winnower (doubly fronted), while PR fronts regularly to č'e•n, winnow by dropping or pouring
*k'ililuk, hawk sp.: SP-M has kel-lel'-oo, marsh hawk, while PK has regularly fronted č 'ililuk, horned lark
*k'opus, screech owl: PK, T k'upu', screech owl; CC k'upu', small owl sp., T k'opu', screech owl; PR $k$ 'opu $(\cdot) s$, screech owl; SP-M $k o$ '-poo, screech owl
*k'or, scratch: Only PH-U shows fronting: č'u•rta, slash with knife, but PCC has $k^{\prime}$ 'oro', scratch (more than once) and PR has $k^{\prime}{ }^{\prime}$ rth $^{h} i$, to scratch on the body (with hand)

Doubly fronted:
*k'ah-i/u, wind: PR shows t'ahi, wind (strong), gale, as well as unfronted $k$ 'ahu•ro, big wind blowing
*k'ar- $a$, scrape: PK shows $t^{\prime} a r a \cdot l$, scraper
*k'eč-, yellowjacket: PCC, K, T and R have $t^{\prime} e$ čew; PK has $t^{\prime} e \check{c c}^{h} e \cdot m a n, t^{\prime} e \check{c}^{h} e \cdot m a n$, t'ese-men

Other irregularities affecting *k':
*k'at ? mesh: PK shows kada, large net, mesh instead of *č 'at
*k'ete•t, one: All represented P dialects have dropped the initial consonant: PCC, K, R ?ete•ta, SP-M et'-tah
*k'ilap?a, afraid, have fear: While PR shows regularly fronted č 'ilapas, afraid, PCC and K have initial s as if from PW *x: PCC sela?a, afraid, scared; K se•la-, afraid
*k'ir, sharp implement: PK uses č ch instead of č' in č ${ }^{h}$ iri, manzanita wood pin to hold net or headband on head
*k'is, seed plant sp.: PCC and PR have č instead of č': čisaw
*k'ete•t, one; PCC, K, R Rete•ta, one (P may have double-fronted to *t'ete•t and then dropped the initial t to avoid three t 's in the same word. Cf . ${ }^{*} p u \cdot p$, roe, in which P lost the final p ( PH and $\mathrm{R} p u \cdot$ )

## *q

Double fronting:
*quču, tickle: PK č ${ }^{h} u k u$-, PH-U čuki, tickle (either the initial has been fronted twice and the medial has been backed, or the consonants have been metathesized with regular fronting of * q to k , but no fronting of č)

Other:
*qa-, green heron ?: PK kalawk'awk'aw, green heron, PT k'awk'aw, PTT k'awk'aw, green heron; PR $k^{\prime} a w k$ ' $a w \check{c}^{h} u$ ?, green heron
*qo(•)la, hide, buckskin: PK k'olay, hide; H-B k'o•lay, buckskin; PT k'olay, hide, skin, buckskin, and PR-B k'o•lay, buckskin

* $\mathbf{q}^{\text {b }}$
${ }^{*} \mathrm{q}^{\mathrm{h}}>\mathrm{s}:$
${ }^{*} q^{h} \overline{a l-t u}$ ? spirit: PH and PR saltu, spirit, perhaps prompted by similar areal forms (however, this form may not be reconstructible; see discussion under set)
${ }^{*} q^{h} e p$, beard, whiskers, particularly of fish: PK sepsep, whiskers, beard, tree moss, stream moss; sepsept ${ }^{h} i \cdot r$, catfish, carp (whisker fish); T sepsep- $t^{h} i \cdot r$, carp (whisker fish); PR sepsep, se•psep (?), beard, mustache, whiskers, PR-B sepseptu, catfish; but regular PH-U $k^{h}$ epum, septum (see W forms listed in cognate set for connection between "whiskers" and "septum")
* $q^{h}$ ili, minnow: PCC se•lismen, KT se•lis(men), snail

Other:
${ }^{*} q^{h} a l a$, plant sp.: PK, CC, T k'ala, mule fat
*q${ }^{h} a w a$ ? * $q$ 'awa ? paddle: PH-B č 'ewayho, soup paddle, PR-B č 'ewak, soup paddle * $q^{h} e d$-, * $q^{h} i \check{c}-$, cut: PCC $k^{\prime} a c ̌ a$, to cut one thing; PR $k^{\prime}{ }^{\prime} \check{c}^{h} o h o, k$ 'ačaho, to cut, alongside regular $\mathrm{K} k^{h} e d a \cdot r o$, slice once, $k^{h} e d i$, a slice, $k^{h} e d u r o$, slice into many pieces
*q ${ }^{h}$ eta, throw solids: PR ketaketa, scattered around

## Irregularities affecting *q':

*q'ali ? charcoal: PCC wali, hot coals, PR, wali, glowing coals

## Irregularities affecting *x:

*xeb, open by scratching: PK shows $k^{h} e b u$-, eat (an apple), nibble, chew on
*xina, sleep: PCC, PK, PR and SP all show k'ana• to sleep
*xurxur, sugar: PK and PT-U have $k^{h} u y k^{h} u y$
*xo- ... wi-, pigeon: PCC, PK ?omo wil and PR Tomo•win have dropped the initial consonant and made other changes, perhaps in response to another, similar areal term
*xok, basket type: PCC $7 o \cdot k$, any basket, small chokemouth bowl (basket type); PR ?o $\cdot k$, chokemouth globular bowl

## 264. Loss of *r

It is possible that P , like N , was in the process of replacing r with y or other consonants. Note the following forms:
*- $r$, genitive case $>\mathrm{P}-y$, pronominal genitive and inalienable possessive case
*p'uri, nipple; *p'uru, seep > PK p'oy, nipple, but PCC p'uri, a seep

* $q^{h} u r$, dislike > PCC $k^{h} u w c ̌ i$, to hate, PH-U kuyči, not like a food
* $\lambda$ ' ir, roast $>$ PK $\lambda$ 'il-, $\lambda$ 'ir-, roast, scorch
*Ti•r?ir, sparrowhawk > PCC, K, T 7it?it; PR Tič 'it, SP 7it'it
*č 'iri, distribute liquid substance > PR t'idi/u, sprinkle, squirt, but PCC t'irlaki, to sprinkle one time
*xurxur, sugar > PK $k^{h} u y k^{h} u y$
*lur, shin > PCC lu•l
*lor, grind $>$ PK lolt ${ }^{h} i / u$, grind, but PCC and PR lori/u


## 265. South Patwin Consonant Loss and Other Changes

Because of the scarcity of material and poor quality of recordings, little can be said about SP other than that it shares P's obstruent fronting chain. Many of the lexical items in the corpus are identical to, or differ very little from, the northern P dialects. Unless substantial differences existed in SP's grammar, it would certainly have been mutually intelligible with the P dialects.

The following SP changes include additional fronting, single fronting where the P dialects have fronted twice, lack of fronting found in P , and loss of initial glottalized consonants. The last of these may have been a sound change in progress following fronting, or may be interpreted as the loss of the nonglottal portion of a glottalized consonant.

Initial *č' is dropped, perhaps via fronting to $* \mathrm{t}$ ', in:
*č 'ena', defecate; *č 'eni, feces > SP-V ena•', defecate; eni, feces
*č 'oq, dry and stiff > SP-M $o k$ ', awk', firewood; $o k$ ', funeral pyre
In other forms, regularly fronted t' occurs.
Initial $\mathrm{t}^{\prime}$ from ${ }^{*} \mathrm{t}^{\prime}$ is also lost in:
*t'ip, make sparks > SP-M e'-pah, acorn bread (cf. PR t'ipil, to bake in ashes; t'iph $a$, bread)

Initial * $\mathrm{k}^{\prime}$ is lost in one form:
*k'ete•t, one > SP-M et'-tah, ā-tah, one (PCC, K and R share the loss of the initial)
Initial * p ' is lost in two forms:
*p'oqita, woman > SP-M o-ke'-tah, woman (cf. o-kis', little girl 4-12). Note, however, that the initial consonant was not dropped in related SP-M 'pot, old woman < *p'ot
${ }^{*} p^{\prime} u(\cdot) r,{ }^{*} p^{\prime} u(\cdot) l$, wild onion $>$ SP $7 u r$, wild onion
Cf. the loss of *p' in P: *p'ukuy, *p'uquy, young girl (perhaps $<{ }^{* *} p$ 'oq, woman + **kuy, small) > PH $7 u c ̌ u-$, $? u c ̌ u \cdot n$, older sister (but p'ukuytu, shrew); PR $\mathbf{T u t}^{h} u \cdot n$, older sister

Additional fronting initially:
*k'eni, winnower > SP-M ten-ne'-che, circular winnower (cf. PR č'e•n, winnow by dropping or pouring, and unfronted PCC, PK $k$ 'eni, winnowing basket)

Final single fronting vs. PCC and PR double fronting:
*se $\cdot k$, root $>\mathrm{SP}-\mathrm{M}$ sětch', root
*tarak, woodpecker sp. > SP-M ter-rah'tch, Calif. woodpecker; cf. PR tara•t, (hairy) woodpecker

No fronting medially vs. PH (except K) and PR fronting:
*seke , pubic hair > SP-G tscheseki, beard; cf. PR-B sečey, pubic hair; H-B sečey, pubic hair; but also unfronted: K ye•sekey, pubic hair (woman's)

## 270. Irregular Correspondences

The sets include the following irregular correspondences:

## 271. d::b

*č'ube, mouse, rat; W č'udeh, white-footed mouse, fieldmouse, rat; PCC, K t'ubes, rat, woodrat; PR t'ubes, rat, mouse; N has both b and d (perhaps folk-etymology).

## 272. n::h

*nup-u, dive; W nupe, to dive; $\mathrm{PH}, \mathrm{R}$ hupu, to dive
*nur, salmon; W nu(•)r, salmon; PH, R hur, salmon
Cf. *hap-a, dig ? pick up ? and W napa, to gather or pick acorns, and sets under *haw-a•l, wrap around, and *naw, robe

Whistler (1976d: 3) suggested reconstructing a voiceless nasal for the $\mathrm{n}:: \mathrm{h}$ correspondence, stating that voiceless nasals are present in Klamath and other Northwest languages.

## 273. n::m

*nu•q, smoke; W nu•q, smoke; PR mo•k-, smoke. Merriam's SP form nook', smoke, is difficult to read and may be mook'

## 274. p::t

*par, full; W para•, to be full; regular PH paro--, to be full, but PR taroho, fill up

## 275. $\mathbf{p}^{\mathrm{h}}:$ :h

${ }^{*} p^{h} e k a \cdot y-$ ? *hika $y-$ ? stand; W hika $\cdot y$-, to stand; PH $p^{h} e$ č $^{h} a \cdot y-$, stand up; $\operatorname{PR} p^{h} i$ č $^{h} a \cdot y$-, stand up. PH $p^{h} i \check{c}^{h} i \cdot y a$, foot of cloven hoofed, and PK pako•, foot $\log \left(<{ }^{*}\right.$ waqu $\cdot$, *waqo ? , $\log$ ) may point to a prefix $p$-, meaning "foot." If it is of PW ancestry, it may have combined with *hik-a•y-i/u, creating the two variants for "stand." Pitkin reconstructs *hE, stand, for pre-Wintu. This, together with PW *he, *hi, demonstrative-interrogative root and *hen, arrive, point to a word family in *he/i.
${ }^{*} p^{h}$ or, wreck; W yel-horuma , to break, destroy, yel-hura, to outgrow, be spoiled, broken, be the remains; be left over; po•m yelhura, to be an earthquake, earth to be destroyed; PR $p^{h}$ or-, break (off). If * $p^{\mathrm{h}}$ is correct, the wide range of meanings of W $h O r$ - may indicate a merger of two separate roots, *hor-, be left, remain and ${ }^{*} p^{h} o r$, wreck.

## 276. $\mathbf{p}^{\text {h }:: b ~}$

${ }^{*} p^{h} e m$ ? *bam ? grasp in one or both hands; W bam, put, arrange, part (hair), carry, close with hands (cf. bam, fist); PCC $p^{h}$ emtaro, carry (held in one or both hands, grasped); H-U (peru.) $p^{h}$ emta, choke (someone; lit. throat grasp). P may have
analogized with $7 e m i / u$-, hold in arms (see *?imit), but this does not explain the $\mathrm{p}^{\mathrm{h}}$. Again, perhaps W has merged two originally separate roots.

## 277. w: :

*nal ? *wal ? lick; W walikna•, animal to lick itself; sem walikna', to lick one's fingers; N-BW nal'-, nel'-, lick; PCC nala $\cdot k o$, to take a taste of; K nal-, na•l-, lick; R nal-, lick. Since N and P agree, perhaps only $*_{\mathrm{n}}$ is reconstructible, W having replaced $*_{\mathrm{n}}$ with w for some reason, perhaps due to wal-, lighten, flame (see PW *wal-u, flame, lightning). However, cf. also W t'elik, to lick, ?el-t'alikta, to taste.

## 278. w:: ${ }^{\text {h }}$

*wil-i ? *p ${ }^{h} i l-i$ ? smooth: W wili $\cdot k a$, to be bare (of ground), to be a clearing, to be a cleared, flat, brushless (large) meadow; $p^{h}$ oyoq wili $k a$, to be bald (head smooth); NS wiliika, smooth; PR $\mathrm{p}^{\mathrm{h}}$ ilik, slippery (as wet or muddy ground); $p^{h}$ ilikmaro Tih, you smooth it out, you polish it. Perhaps a merger of two forms, *wil-, bare and ${ }^{*} p^{h} i l-$, slippery, both part of a larger family with *sil, slip

## 279. y::I

*yir? *lur ? leg; W lurur, leg; PCC, K yir, leg

## 280. y::t

*yoryor ? *tortor ? cicada; W yo(•)ryorh, June bug, tree cricket; PCC to•romen, katydids; K June bug; T-U tortor, cricket

## 281. r::y

See 264.
282. s: : $\mathbf{t}^{\text {h }}$
${ }^{*} t^{h} a \cdot p$, *sap ?, wash face, wash up; W Tel-sapana•, to wash one's face; PR $t^{h} a \cdot p u n a n$, wash your face and hands; cf. *sub-u, smell; W sube; subu-, to smell (tr.); PT-U subu $k i$, cigarette; but PCC, K $t^{h} u \cdot b i / u$-, smell, stink; PR $t^{h} u \cdot b u$-, smell, stink. Cf. also *t'umi, fog; W t'umi', fog; PT $\left.t^{h}\right) u m i$, waterfall; but K sumuklay, to be foggy

## 283. y::w

*yodo, *woto ?, peppergrass; W yOd-, pick or pull grass; N-G yodôh, peppergrass; PK wotok ( $t^{h} o \cdot k$ ), peppergrass

## 284. y::?

*yono, buckeye ?; W yonot, buckeye, < *yon, that which is shaken?; PCC $7 u \cdot n u$, buckeye ball and other P reflexes in 7-. Whistler 1977a suggests that the P forms are borrowed from Miwok, citing PMi $7 u \cdot n u$, which is the most likely interpretation.
*yulyul, rot; W yulel, to be rotten, spoiled; yulyulel, a lot to be spoiled or rotten; PTU ?ul?ulumas, rotten, spoiled

## 285. *q': : w

*q'al-i ?, charcoal; W q'ali, charcoal; PCC wali, hot coals; PR wali, glowing coals (perhaps *q' $>\mathrm{w}$ under the influence of *wal-u, flame, lightning)
*q'uh-i/u, cough; W q'uhe, q'uhi/u-, cough; PCC, R regular k'uhi/u-, to cough, but K wohi/u-, to cough (perhaps imitative)

## 300. MORPHOPHONEMICS

## 310. Root and Stem Structure

Although the reconstruction of PW morphophonemics and morphological elements is hampered by the lack of a Patwin grammar, a simple grammatical sketch is possible.

## 311. Roots

The vast majority of roots have the shape CVC or $\mathrm{CV} \cdot \mathrm{C}$. A few roots have the shapes CV and CV• (e.g., *ne-, first person pronominal root; ${ }^{*} q^{h} o$, striped skunk). Some longer forms of the shapes CVCV, CVCV', CVCVC, CV•CVC, CVCV•C, CVCV•CV are no longer analyzable, but may ultimately derive from CVC roots followed by suffixes or from compounded roots. For example, *dehe•la, bat, can be related - perhaps via folk-etymology - to *dih, spread open, with its *-V•l perhaps related to the W distributive -VlVlVh (as in bo•loloha, to pulverize). In most cases the (first) two vowels of these longer forms are identical. E.g., *dala, leaf; *hosop, light in weight; *čh $a \cdot h a y$, gray hair; *p'olo $\cdot q$, tie a knot. The longest unanalyzable forms are animal and plant names, which may be old borrowings, folketymologies or a combination of both; e.g., *k'ililuk, hawk sp.

## 312. Root Reduplication

Roots may be reduplicated by simply doubling the entire root minus any length. Since most roots are of the shape CVC, the majority of reduplicated forms are of the shape CVC-CVC. Examples of reduplication are: *k'ok'o, flea; *halhal, repetitive or prolonged thinking; *tiltil, ringing sound; *č'ereCč'ereC, č'iriCč'iriC ? small bird sp.; č’uru(C)č’uruC, cricket; *sasasapa, oriole. The only morphophonemic rule that applies to reduplication is that when the root has a long vowel, its copy has the corresponding short vowel. E.g., *pa•tpat, flat tule, cattail; *?i•r?ir, sparrowhawk. In *wasasa, rattle (rustle ?), the last syllable rather than the root is reduplicated, most likely for sound-symbolic purposes. The only other form in
which the last syllable is reduplicated is *t'arara? *č'arara? kingfisher, which may be a borrowing.

## 313. Prefixes

The very limited set of prefixes, which are all locational or directional, are of the shapes CV or CVC; e.g. *tu-, ahead of; *pat-, out.

## 314. Suffixes

Suffixes are of the shapes ${ }^{*}-V$ (e.g., ${ }^{*}-u$, imperative or irrealis stem-deriving suffix), $*_{-C}$ (e.g., *-k, completive); *-VC (e.g., *-in, locative case); *-V.C (e.g., *-V•y, iterative); *-CV (e.g., *-ba, kinterm plural); and ${ }^{*}-C V C$ (e.g, *-pel, dual). A single suffix is of the shape ${ }^{*}-V$, the realis stem-deriving suffix ${ }^{*}-a$. (and possibly its allomorph ${ }^{*}-e \cdot$ ), the long vowel pointing to an origin in the auxiliary ${ }^{*}$ - $a$, have (see below). All suffixes longer than a single V or a single C show more or less clear kinship with independent words, and many of the single V and single C suffixes do as well (see sets).

## 320. Vowel Alternations

Although there is insufficient evidence to suggest a formal system of ablaut in PW, many reconstructions indicate either rudimentary or vestigial alternations of just about any two vowels. E.g.,
i-e
*č'ebar, to scrape, scratch; *č’ibi, nominal stem; *č’ $i \cdot b a$, shave off with sweeping motion; cf. also *k'eb-, loosen by scratching
*čh $i y a$, call someone; *č'e( $\cdot) w$, talk
*č' ' $r$ r-, distribute liquid substance; *č' 'er-, sand, use sand
*dih, spread open; *dehe la, bat
*he, *hi, demonstrative-interrogative root
*lir, rub; *ler, cricket; cf. also *lor, grind
*liw, fan, wave, gesture; *lew, vibrate, oscillate (such as stems, limbs, twigs); cf. also
*low, hang
*sew, siw, pack
${ }^{*} t^{h} e l$-, liquid spreads; * $t^{h} i l-? a$, eat with someone
*t'er, make round; *t'ir, twist
*?imit, breast, milk; *?em-, hold pectorally; cf. also *? $u \cdot m$, fill with liquid
$\mathbf{i}-\mathbf{u}$
${ }^{*}$ sil, slip; ${ }^{*}$ sul, blanket, cover (note pre-Wintu ${ }^{*}$ sul, slip, slide)
*?iy-, be, do, use (non-distal); *?u-, do, be (distal)
*Timit, breast, milk; *?u•m, fill with liquid; cf. also *?em-, hold pectorally

## a-0

*bal-, tell a lie; *bo•le tale, tell a tale
*hak, up and down movement; *hok, raise
*kalay, gap; *qo( $) l$, mouth; cf. also *holoq, hole
*k'at? mesh; *koro, net
*k'ar, scrape; *k'or, scratch; cf. also *k'ur, tear; *q'er, scrape
*las, crawl; *los, scrabble
*law, flabby; *low, hang
*qarč ${ }^{h}$, rake; *qor, grind; cf. also *qir, pull

* $q^{h} a p l a$, outer bark (as used for building); * $q^{h} o p$, cut off, slice
*?a•q, bitter; *?oqč ${ }^{h}$, vomit


## a-e

*č 'aq, hang; *č' 'e•k, rope
*-na, reflexive; *ne-, first person pronominal root
*na, *nah ? mother; *neh, *ne•n, mother
${ }^{*} t^{h} a \not$, bump; * $t^{h}$ eł, crack open; cf. also * $t^{h} o ł$, break up surface; * $t^{h} u l$, swim

* $\lambda$ ' $a b$, * $\lambda$ 'eb, break
*yal, leave; *yel, back of, behind something; cf. also *yol, a while
$\mathbf{a - i}$
*man, miss; *min, be nothing
${ }^{*} p^{h} a t$, press; ${ }^{*} p^{h} i t$, mash; cf. also ${ }^{*} p^{h} e t$, pound with flat surface; *pit, squeeze; *p’it, squeeze
*q'a- ?, ${ }^{*} q^{\prime} i-$ ? cloud; ${ }^{*} q$ 'a $\cdot q$, mental clouding; * $q$ ' $i d u$, forget
$\mathbf{0}-\mathbf{u}$
*boq, milkweed; *buq, pus
*čok, near; *čuk, approach
*hor, remain; *huy, save
*łob, bubble; *łubuq, soft, round plant sp.?; *łupuq, thin, loose; *łupe, drink/eat acorn mush with fingers
*pol, water container; * $p^{h} u l$, water container
*p'oq, woman; *p'oqita, woman; *p'ot, old woman; *p'ukuy, *p'uquy, young girl
*qop, bathe; *qum, dip
*sono, nose; *subu, smell
e-o
*bey, *be', lie, be; *boh, *bo•, sit, be
*he, *hi, demonstrative-interrogative; *ho, past demonstrative
*?el-, in horizontally; *?ol-, up (i.e., vertically)
i- 0
*lim, fade away; * $\lambda$ ' $o \cdot m$, kill
$\mathbf{a}-\mathbf{u}$
*ma•t, ear; *mut, hear
Whistler (1980: 332-3) has observed vocalic alternation in kinterms, stating: "Proto-Wintun *teh [child] shows a strong formal resemblance to *tah [father]. This resemblance could be due to chance, but a pattern of sorts emerges when we consider some other terms. Proto-Wintun for 'mother' shows two alternative protoforms: *neh-/*nah; and Proto-Wintun *ley 'younger brother' and *lay 'sister' shows a similar vocalic alternation. These vowel alternations may be reflexes of some systematic distinction in Pre-Proto-Wintun. At any rate, it seems that the resemblance of Proto-Wintun 'father' and 'child' terms is not a fluke. Could they ultimately be reflexes of a single, self-reciprocal 'father' <--> 'man's child' kinterm? Such a possibility is strongly reinforced by a comparison with Proto-Maidun, which includes *te 'father' and *te. 'son', and which makes widespread use of selfreciprocal kinterms involving lineal kin-types."

He further observes (ibid. p. 333) that the following three forms may be linked by obscure phonological or morphological processes predating Proto-Wintun: *lo•y-(ta) adolescent girl
${ }^{*} k^{\prime}$ urey-(ta) young boy (perhaps $<{ }^{* *} k^{\prime} u(t)$, small $+{ }^{*}$ ley at a time when r was a (stress-conditioned?) allophone of $* * 1$ and/or $* * \mathrm{t}$.
*Telay, *ilay, baby, child, small
(The first two of these are in this volume reconstructed without the suffix *-ta for which I found no evidence in these two kinterms.)

## 400. VERBAL MORPHOLOGY

Identification of Patwin morphological elements is primarily based on Whistler 1977b, 1978, 1980, and 1986.

## 410. Reduplication

The derivational process of reduplication in most cases forms iteratives. E.g., *č ${ }^{h} e p \check{c s}^{h} e p$, hit (iterative)
*halhal, repetitive or prolonged thinking
*harhara., many go
*kepkep, shake (iterative)
*xinxina, many sleep
*mormor, move (iterative)
*pumpum, many stoop, (to be) all stooped
*phekp ${ }^{h} e k a \cdot y-$ ? *hikhika•y- ?, many stand
*qirqir, pull (iterative), drag
*winwin, see (iterative)
In a couple of instances, the root may be reduplicated for symbolic reasons:
*yulyul, to rot (perhaps diminutive or intensive)
*?ilfil, to glare, reflect (symbolic of the reflection? intensive?)

## 420. Verb Structure

Verbs consist of simple or reduplicated roots preceded by optional locational or directional prefixes, and followed first by derivational, then by inflectional suffixes. Where auxiliaries were present, they most likely intervened between derivation and inflection.

## 421. Auxiliaries

Five auxiliaries are reconstructible, each related at a shallow diachronic level to an independent verb.
421.1 *bey (before a vowel), *be (elsewhere) means "lie, be" as an independent verb. As an auxiliary, it is reflected in W as imperfective aspect while its P reflex is "to be (inanimate)," in keeping with the corresponding verbal reflex which means "to be (inanimate locational)." The meaning of the PW auxiliary could therefore be imperfective, inanimate, or, perhaps best, the common denominator of the two, "indefinite duration." Imperfective denotes a longer or indefinite duration; an inanimate "is" or "lies" indefinitely until relocated by an animate. No complete words containing the auxiliary are reconstructible. The animate/inanimate distinction is probably innovative in $P$, which has also introduced an animate possessed/inanimate possessed dichotomy into its pronominal paradigms.
421.2 *boh (before a vowel), *bo (elsewhere) means "sit, be" as an independent verb. As an auxiliary, it is the counterpart of *bey/*be., reflected in W as durative aspect, while its $P$ reflex means "to be (animate locational)" as a verb and "to be (animate)" as an auxiliary. The meaning of the PW auxiliary could therefore be "durative," "animate," or combining the two, "definite duration." The common denominator of "animate" and "durative" is duration, as an animate "is" or "sits" for a definite duration until it chooses to relocate. No complete words containing this auxiliary are reconstructible.
421.3 *har (*hara with the realis stem suffix *-a.) means "go" as an independent verb. As an andative auxiliary it translates as "going to" in both W and P , but in a somewhat more literal sense than the English future "going to." It is not entirely clear whether *har was an actual auxiliary in PW, or just compounded with other verbs. It is possible that some of the "going to" examples in W and P are actually loan translations.
421.4 The auxiliary *-? $a$, "to have" is reflected in P as the auxiliary $-7 a$, "to have," and in W as $-7 a$, the subordinating suffix of temporal anteriority, "after having..." The W indicative suffix $-a$, and perhaps also its short allomorph $-a$, is probably the result of a merger of PW realis $*-a / / * a$ with $*-? a$, which P keeps separate. Perhaps the meeting point of $\mathrm{P}-7 a, \mathrm{~W}-7 a$, and W and $\mathrm{P}-a,-a \cdot$ must be placed earlier, in prePW. The auxiliary's ultimate verbal origin probably lies in *?ab, *?ap, "carry on back." Examples of complete words are: *bal?a, tell a lie; *č'ep?a, be bad; *koyi?a, hurt, sick, want; *k'ilap?a, afraid, have fear; *k'ilap?ama, causing fear, frightfully, really; * $\left.q^{h} a s i \cdot l\right\urcorner a$, have impaired vision; *q'o(•)tZa, dirty; *yori $Z a$, send after, direct to; *? $a \cdot q$ ? $a$, be bitter; and possibly *?ut' $a$, after that ( $<$ *?uw, do/be at a distance + *- $2 a)$. Except for the last, these reconstructions assume that W has merged the auxiliary with realis ${ }^{*}-a /-a$.
421.5 The passive *-her parallels the other auxiliaries in form and function. It is related to *her "help," PCC he•r, "reach" and PCC and PK her-, he•r-, "get." Two complete words are reconstructible: *ba-her, be eaten, *čh ep-her, be hit, as well as *mut-her, non-visual sensorial evidential, which may have been a suffix, auxiliary or independent word.

## 422. Locationals and Directionals

A number of locationals and directionals are reconstructible, which most likely functioned as both independent words and prefixes in PW. PW had no other verbal prefixes.
$422.1 * k^{h} e n-$, down, reflected in W as ken-, down (into), below, in, downward, and in PCC as č ${ }^{h} e n$-, down. In W, ken also occurs as an non-prefixed root, but never without a suffix (e.g., kenti, down(ward), below, underneath) or compounded (e.g. kent ${ }^{h} u n$, slope). Extended with length, it can stand alone (ke•n hara., to sink, to set (of the sun)) or form a verb, $k e \cdot n a$, to be deep. It has also been recorded as an independent word ( $\check{c}^{h} e n$ ) and suffixed with - $t i\left(\breve{c}^{h} e n t i\right)$ in various P dialects.
422.2 *pat-, out(side), reflected in W, PH and PR as pat-, out(ward). In both W and various P dialects it also occurs as an independent word meaning "the outside, outdoors."
$422.3^{*} t u$-, ahead (of), before, first, reflected in W as $t u-$, ahead, forward, and in PC as $t u \cdot-$, ahead, first. It is related to *tum, eye. It occurs as an independent root in W followed by the suffix - $d a$ ( $t u d a$, increasive, further along, very). Related free forms in W are $t u n$, ahead, in front, and $t u \cdot n$, far ahead, long past, a while ago, a long time ago. PH and PR also have independent forms suffixed with -pa, tu•pa, front.
422.4 *yel-, back of, behind something, reflected in W as yel-, away, behind, backward, and in PC as yel-, back, reverse, later, behind. It occurs independently in W with locative suffixes (e.g., yelti, the backside, back of, in back of, behind), compounded (yelthun, slope behind) and as a verb, yela, to leave, to go away, to be further away (cf. *yal-, leave). In P it also occurs as an independent word, with or without suffixes (e.g., PCC yel?a, late, last; PK yel tepiła, last spring).
422.5 * Rel-, in horizontally, reflected in W as Rel-, in horizontally, inside, and in PCC, PK and PR as Rel-, in, into. In W Rel is also an independent root, but never occurs without a suffix (e.g., Telti, inside; ?elin, all over). In PCC it can stand alone (e.g., pi hamtaro bo•s keweła ?el, he's sitting inside the house). It is closely related to the suffix ${ }^{*}-e(\cdot) l$, *-el, locative, toward, in (horizontally?).
422.6 *?ol-, up, is reflected in W as ?ol-, up, above and in PK as ?ol-, up. In W it occurs as an independent root, but not without a suffix (e.g., ?ole•l, up, above; ?olti, above, above there). Whether the PK recording hol, up, indicates an independent word is unclear. It also occurs in PCC as Tole $\cdot l$, up and in PK as Rolel, up. A complete word *?ol-daw, be face up, is reconstructible.

## 423. Derivation

The verb root is followed by root-deriving suffixes, modal suffixes (what Pitkin calls "stem formants" in W), stem-deriving suffixes and inflectional suffixes, in that order.

### 423.1 Root-deriving Suffixes

423.11 *-č ${ }^{h}$, mediopassive, in some cases translates as transitive. See: *libč ${ }^{h}$-, submerge; *p'i$i \check{c ̌}^{h}$-, to skin; *yuqčch-, shake, wake up; *thač̌ ${ }^{h}$-, dump (granulated solids?); * $t^{h} o q \check{c}^{h}$-, lean something against something; * $\lambda$ 'op $\check{c}^{h}$-, insert long things (vertically ?), poke, stick into; *minč ${ }^{h}$-, to turn into nothing; *leq ${ }^{\prime}{ }^{h}$-, to be tired; *łarč ${ }^{h}$-, to tie a sling; *Roqč ${ }^{h}$-, to vomit; * $p^{h} u(\cdot)$ łč ${ }^{h}-$, blow on/at; *qarč ${ }^{h}$-, rake (toward self?); *sipč ${ }^{h}$-, straighten, make stiff.
$423.12{ }^{*}-V(\cdot) r$ is a continuative suffix. The length was probably not distinctive. It occurs in *kimu•r, rumble, roar, and *łonor, sound bee-like. It is perhaps diachronically related to *har, go, and/or *wer, come, or to the ${ }^{*}-r$ in these forms.
$423.13{ }^{*}-V \cdot y$ is an iterative suffix. It is reconstructible in *hila $\cdot y$, swing arms, and ${ }^{*} p^{h} e k a \cdot y-i / u$ ? *hika•y-i/u?, stand.
$423.14 *_{-} V(\cdot) l$, stative ? W has a suffix -el, -al, -il which forms stative, intransitive verbs. Six PW forms, *haw-a•l, wrap around; *kip-Vl, roll, run continuously; $*_{k}$ 'aral, stative of ${ }^{*} k^{\prime} a r-a$, scrape (?), ${ }^{*} k^{\prime} u w i(\cdot) l$, bent (crooked ? arched ?), *witil(?a), be fast, do fast, and *łaqal, play, may be evidence that this suffix is reconstructible.

### 423.2 Modal Suffixes

$*_{-} a,{ }^{*}-a \cdot,_{-}^{*}, *_{-e},{ }^{*}-i, *_{-u}$ are modal suffixes, all historically related to auxiliaries and/or independent words.
$423.21{ }^{*}-i$ was probably a nominalizing or neutral mode suffix. It derives stems with nominal meaning (e.g., *čh $k k i$, pitch, resin; *č’eni, feces; *kiki, frost; *k'eni, winnower; *k'ili, horn, etc.), adjectives and adverbs (e.g., *wili, smooth; *čoki, near; *č'aro•qi, green), as well as stems for further derivation and inflection (e.g., *koyi?a, hurt, sick, with the auxiliary ${ }^{*}-7 a$ ). In P , stems in $-i$ are followed by auxiliaries (e.g., PK pi wi ta ?uymułe č ${ }^{h}$ ayibus, that man is ashamed of his boy), the nominalizer $-s$ (e.g., PT-U čayis ču, I'm ashamed), and the future suffix -t'i (e.g., PR č ${ }^{h} u$ perit'i, I'm gonna swallow (it)). It also translates the infinitive (e.g., PR peri, to swallow). ${ }^{*}-i$ is related to *?iy, be, do use (non-distal?).
$423.22 *-u$ was probably an imperative and irrealis stem-deriving suffix. In W it is reflected as the imperative stem-deriving suffix, forming imperatives (e.g., buqu, build!, č' $a \cdot w u$, sing!) and stems for further inflection (e.g., hutup'ure, warm each other, with reciprocal -p'ure; bimču•n dolupaq, catch in a sling, followed by
benefactive -paq). In P , it translates indicatives (e.g., PK t'unu, to urinate), forms nouns (e.g., PR $t$ 'u•bu, shin), imperatives (PK peła nat doyu pima, give that to me someday), and derives stems for further inflection (e.g., PR mile doyu $\cdot t^{h} i$, you folks give! PK pi nat doyusa, he gave it back to me; PR doyule mis, I'll give it to you). In both W and P it precedes the reflexive ( W doyuna, to give (to) oneself; $\mathrm{PH}-\mathrm{U}$ doyuna•nta, he's giving up, giving self away), the animate comitative suffix (W č'a•wuwil, sing with someone; P čeruwili, kill them off), and the reciprocal (W yalup 'ure, to separate; PCC $k^{h}$ osup'iri, guessing game). It is diachronically related to *? $u$, do/be at a distance, the counterpart of non-distal *?iy.
$423.23{ }^{*}-a$, *-a has been tentatively identified as a realis stem-deriving suffix. It is historically related to the auxiliary *-? $a$, have. The long-vowel allomorph reflects the loss of the glottal stop of *-? $a$. No semantic difference has been identified in PW, W or P between forms with the long and short vowel. The fact that *-a. (along with its allomorph *-e. which is doubtful and only occurs in one form) is the only suffix of the shape ${ }^{*}-V \cdot$ further confirms its origin in the auxiliary ${ }^{*}$ - $a$.
$423.24{ }^{*}-e$, *$-e \cdot$ appear to be allomorphs of realis ${ }^{*}-a$, ${ }^{*}-a$, perhaps related to the demonstrative root*?e- which forms third person proximal pronouns (see *?ew, proximal third person singular subjective, *?ewe-r, proximal third person singular inalienable possessive and genitive, and other derivatives) and is in turn related to *?iy, be, do, use (non-distal). These suffixes are much rarer than ${ }^{*}-a$ and ${ }^{*}-a$, reconstructible in only the following: *łele, weave; łupe, drink/eat acorn mush with fingers; *bere, be hungry, starve (under *per-i/u, swallow); *p’iłe, choose, *qere. (the only form with long vowel, perhaps sound symbolic), belch; * $t^{h} u l e$, swim. Since they are not reconstructible following a or o, they may also have arisen as harmonic variants of ${ }_{-}-a /{ }^{*}-a \cdot$. No semantic difference is discernable between ${ }^{*}-a /-*_{a} \cdot$ and ${ }^{*}-e /$ *-e.

### 423.3 Stem-deriving Suffixes

$423.31{ }^{*}-h$ and ${ }^{*}-s$ derive verbal stems, most likely with intensive meaning. The reflexes in W are $-h$, stative intransitive intensive verb-derivational suffix "to be..., to be like," and $-s$, intensive verb-derivational suffix, which follow the nominal or neutral mode suffix. For P, Whistler has identified verbalizers -ho and -so, as well as $-h o$, -to, -ko, plurality and temporality distributive. He also identifies -ho as a "theme-derivational suffix" (1981:88).
423.32 *- $m$, "inanimate comitative" can be reconstructed based on W $-m$, generic comitative (which indicates that the verb has a syntactic object in the generic aspect, which may or may not be overtly expressed), frequently translated as "with" or "while doing something else," and P -me, valence-changing suffix "with." Examples are: *dekm- to climb something; *harm-, take/bring something inanimate; *henme, bring (i.e., arrive with); *q'apma, to trap. This suffix may be related to the nominal objective case suffix *-ma, causative *-ma, and/or W $-m$, an allomorph of the generic aspect.
$423.33{ }^{*}-m a$ is a causative suffix. Its W reflex is $-m$, causative (usually followed by indicative $-a /-a \cdot)$; its P reflex is $-m a$, causative. It is well represented in: *ba•ma, feed; *be•ma, make lie, let lie; *čhiri $k$ kuma, scare someone; *horuma, save, leave behind; *k'ilap?ama, causing fear, frightfully, really; *noquma, make ripe; *paroma, *paruma ? fill; * $p^{h}$ otuma, boil (transitive); * $q^{h}$ onma, dry (transitive); *werma, make come, let come; and probably *?uma, thus. It may be related to inanimate comitative ${ }^{*}-m$ and nominal objective case ${ }^{*}-m a$. Its ultimate verbal origin is a predecessor of *mal-, make.
423.34 *-na, reflexive, is well represented: *čh ${ }^{h}$ epna, hit self; *doyuna, give (to) oneself; *leluna, become (< *lel-, make); *liwna, fan oneself, *yo(•)wuna, miss (< *yo( $\cdot) w$, lose, miss). The W reflex is $-n$, reflexive (usually followed by indicative $-a \cdot$; the P reflex is $-n a$, reflexive. Whistler 1977 b also lists a reflexive auxiliary -nan, which may point to the verbal origin of *-na, perhaps relating it to pre-Wintu *na, *nan or *nana, truth, real, actual. *-na may also be related to *-da, relational nominal suffix (see Section 512.31), the first person pronominal root *ne, and the kinterm absolutive suffix ${ }^{*}-(\cdot) n$.
423.35 The benefactive is *-pa or *-paq. W has -paq, P has -pa, and N has both. Since the loss of ${ }_{-}-q$ is easier to explain that the acquisition of a final $-q,^{*}-p a q$ is the most likely reconstruction. Reconstructible words are *henpa(q), meet, and *t'ikupa(q), pour solids on something.
$423.36^{*}-p$ 'ur is the reciprocal, reconstructible in the neutral or nominal mode *-p'uri. Two complete words are reconstructible: *čhepp'uri, hit each other and *ikup'uri, fight each other. The W reflexes are $-p$ 'ur (root and imperative stem), -p'ure, indicative, and -p'uri, nominal form. P reflexes are p'ir (Whistler 1977b), -p'ita ( $\mathrm{PH}-\mathrm{U}$ ), and SP has -pisi' (V) and -per-re ( M ). The root vowel ${ }^{*} \mathrm{u}$ is reconstructed rather than $*_{i}$ because the suffix is related to ${ }^{*} p{ }^{\prime} u r-i$, nipple.
423.37 A nominalizer *-s is reconstructed as the best common denominator for $\mathrm{W}-s$, generic aspect (nominal suffix), which often functions to nominalize a verb, and $\mathrm{P}-s$, listed by Whistler for PCC as ongoing or completive aspect (i.e., non-inceptive aspect, neutral with respect to tense). Whistler (1978) lists it as a neutral, unmarked tense suffix, which marks a verb as sentence-completing (i.e., not participial), but does not explicitly indicate tense; and Whistler 1986 identifies $-s$ as unmarked tense, declarative mode. It is related to $\mathrm{P}-s a$, definite past declarative mode. Whistler also identifies a PCC nominalizer $-s$, $-(s) t u$ (?). Numerous words with ${ }^{*} s$ are reconstructible; e.g., *ba•les, being able to eat, going to eat; *ba $\cdot s$, food, eating; *be $\cdot s$, being; *henes, arriving; *nupus, diver; *?ele $\cdot s$, there is/are no... Adjectives fall within the nominal category, e.g., * $q^{h}$ onos, dry.
423.38 *-wil, ${ }^{*}-i(\cdot) l$ was most likely an animate comitative contrasting with ${ }^{*}$-m, inanimate comitative. The W reflex is the particular comitative $-i \cdot l$, -wil. It has not been listed as a separate suffix for P ; various P reflexes are listed under *wer, come;
*boh, *bo', sit, be; *ker-u, finish off, gone. This suffix is probably related to *win, person.

## 424. Inflectional Suffixes

$424.1^{*}-d a$, first person subject, is related to the relational nominal suffix ${ }^{*}$ - $d a$ (see Section 512.31). Pitkin (1985: 107) suggests that $\mathrm{W}-d a$, first person subject, is from $-d a$, intensifier "very" which also translates as "from" or "of," which in turn is related to $-d a$, suffix of adverbs of time. While I agree that the three suffixes are closely related, I believe their primary meaning is not intensive, but speakerrelational. As a first person suffix, ${ }^{*}-d a$ relates an incident to the speaker (it happened to self) like a deictic, which goes well with the "from, of" meaning and the suffix occurring with adverbs of time which relate a time period to the speaker's present. *-da may also be related to the reflexive suffix *-na, which also relates back to self.
424.2 *-di, let, hortative, is reflected in both W and P as hortative, may, let. It may be related to ${ }^{*}-d a$, first person subject and ${ }^{*}-d a$, nominal relational suffix. It is reconstructible in a complete word *be•di (under *bey), "be + hortative, may it (not) be.
424.3 A suffix *-m has been reconstructed with a tentative meaning of "dubitative, subjunctive." It follows the realis stem-deriving suffix. Its W reflex is $-m$, dubitative (doubt, interrogation of second persons, absence of any evidence which could provide a degree of certainty; marks declarative statements of slight doubt or weak interrogation; more recently is often used as a third person subject marker paralleling English third person $-s$ ). For P, Whistler 1978 lists $-m /-m u$, general subjunctive mood marker, with special uses as negative and purposive; $-m ? a /-m u$ ? $a$, evidential "must be that," and $-m ? u /-m u ? u$, negative. Whistler 1986 lists $-m /-m u$ as unmarked tense, quotative mode; $-m$, subjunctive; and $-m ? a /-m u ? a$, confident inference (with $-? a$, have). Two words are reconstructible: *beyem (under *bey) and *bo•m (under *boh).
424.4 *-e $e$, let's, is reconstructible in a complete word *hare , let's go, assuming that $h a r$ '- $r \bar{a}$, the SP form recorded by Merriam, represents hare and means "let's go" rather than "go away."
424.5 *-k, completive, can be reconstructed based on $\mathrm{W}-k$, completive and $\mathrm{P}-\check{c} u$, resultative state, completed state. No complete words are reconstructible. This suffix is related to *qa, referential.
$424.6{ }^{*}-k^{h} e n$, may, might, lest, related to deictic ${ }^{*} k^{h} e$. One complete word is reconstructible: *t'ukuk ${ }^{h} e n$, you might drown, based on $W$ t'ukuken, you might drown, lest you drown; PR č'o•nan, t'učučin $m i$, watch out! you might drown.
424.7 *-le is an intentional future. The W reflex, previously called "inevitable future," but more appropriately identified as intentional future, includes necessity,
causality, futurity, potentiality, probability and most often translates as "going to." The P reflex also translates as "going to"; its nominal form -les means "can" and -len is "should." This suffix is related to *lel-, "make," which points to a future that is "made" by an individual, which makes it inevitable provided the individual intends it. Several complete words are reconstructible: *ba•le, going to eat (nominal form *ba•les, being able to eat, going to eat); *doyule, going to give; *hale, I'll go, we'll go; *henle, going to arrive; *yi•lale, going to send; *?ule, going to do/be at a distance.
$424.8 *_{-r o}$ ? ${ }^{*}$-r ? is a subordinating suffix of causal or temporal anteriority. It is reconstructible in one complete word: *bar $(o)$, eat(ing). The W reflex is $-r$, subordinating suffix of causal or temporal anteriority (often translated as "because"); the P reflex is -ro, which indicates related predicates sequential in time, or simultaneous predicates where one is background to the other.
424.9 * $_{-t a}$ is a subordinating suffix. Its W reflex is $-t a$, subordinating inflectional suffix of temporal anteriority or simultaneity which is conditioned, dependent or resultant and marks the verb as dependent syntactically; it translates as "while, during, after, when, as." The PCC reflex is -ta, participle (Whistler 1986) or continuative gerundial (Whistler 1980). Another PCC reflex may be $-t$, subordinate object form of -ro (ibid.). Whistler 1978 notes that $-t a$ is rare in CC and standard in K. *-ta may be related to the directional locative *-ti (see Section 512.33).

## 500. SUBSTANTIVAL MORPHOLOGY

Substantives divide into nouns, kinterms and pronouns on the basis of their inflectional suffixes.

## 510. Nouns

The order of nominal morphemes is: root - derivation - inflection.

## 511. Nominal Derivation

511.1 Reduplication

In the noun, reduplication fulfills various symbolic purposes. E.g.,
*holhol, throat (perhaps diminutive; cf. *holoq, hole)
*xurxur, sugar (perhaps diminutive or intensive)
*tiltil, ringing sound (sound-symbolic)
In the following animal names and one plant name, reduplication is most likely symbolic of the animal's sound, the animal's or plant's appearance, or may in some cases be diminutive:
*bo•lbolVq, butterfly; poppy
*čeqčeq, hawk sp.
*čhiqč ${ }^{h} i q-$ ? *č ${ }^{h} i l \check{c ̌}^{h} i \nmid-$ ?, chipmunk
*č ${ }^{h}$ olč ${ }^{h}$ ol, mountain quail
*č 'ereCč'ereC ? č'iriCč 'iriC ?, bird sp.
*č ’uru(C)č 'uruC, cricket
*k'ok'o, flea
*pa•tpat, flat tule, cattail
*sasasapa, oriole
*taqa-taqa, scorpion
*tolto ? *totow ?, roadrunner
*t'arara? *č'arara ?, kingfisher
*wočwoč ?, Steller's jay
*yoryor? *tortor, cicada
*RalRal, crow
*Rat?at? Rač?at?, magpie
*?i•r?ir, sparrowhawk
511.2 *-ta may be a human classifier. It occurs in *p'oqita, woman and *wi•ta, man.
511.3 *-ma is a suffix marking naturally paired objects, reconstructible based on W haqam, elbows (dual) and P -ma, suffix marking naturally or conventionally paired objects (Whistler 1980: 256), as in: sa-ma, eyes; dam-ma, pair of gambling bones. It may be the origin of W generic aspect $-m$ and related to *-ma, causative, and *-ma, objective case.
511.4 *-men, "thing," perhaps a classifier, is reconstructible in one word, *xedimen, "stinkbug" from *xedi-, fart (nominal or neutral mode). Its W reflex is -me, own, type, kind, variety (-men, generic aspect; -met, particular aspect), which Pitkin calls a "compounded dependent non-possessed noun." Its P reflex is -men, thing. Rather than a bona fide suffix, its status in PW may have been similar to that of its W reflex - the second member of compounds which lost its independent status.
511.5 *-to or *-tu has agentive meaning. Its W reflex is the disjunctive postclitic (foregrounding, agent, focus and contrast) -to; its P reflex is agentive $-t u$. It is probably related to the suffix ${ }^{*}-t u(\cdot)$, person, people. The only complete word reconstructible is *ba•sto/tu, "eater." Because of the kinship with *-tu(•), the vowel was most likely u. Like *-men, it may have been the second member of a compound, no longer able to stand alone, rather than a genuine suffix.
511.6 *-s, nominalizer; see Section 423.37.
511.7 A suffix $*_{-} V_{l} l$ occurs in *holol, sunshine; *kopol, pond; *xerel, people of, village; *k'ala( $\cdot l$, flowers; *pene ( $) l$, black oak acorn; *qewel, house; *tahal, tongue; *t'eqel, palm; *yoho $(\cdot) l$, toad. Its meaning is unknown at present, but it may be distantly related to the verbal stative of the same shape.

## 512. Inflection

### 512.1 Number

*-ba is a kinterm plural or human plural. It is reconstructible only in *xeriba, young men, and $* l o(\cdot) y b a$, adolescent girls. In P it is used with a number of kinterms (Whistler 1980: 215), while in W it forms plurals of third person pronouns (see discussion of pronouns below).
512.2 Case
$512.21 *-m a$ is reconstructed as objective case, although the presence of the $-a$ is in doubt. The W reflex is $-m$ (after a vowel), -um (after a consonant), objective case; the P reflex is $-m a$, objective case (animate). The W generic aspect marker $-m$ is doubtlessly related to this suffix, as is the P suffix $-m a$ which marks naturally or conventionally paired objects (Whistler 1980: 256; e.g., sa-ma, eyes; dam-ma, pair of gambling bones). Cf. the discussion of *-t, Section 531.322, for the relationship between case and aspect.
$512.22{ }^{*}-n$ ? *-no ?, genitive case, marks alienable possessive and subordinate subjects. In $\mathrm{P},-n$ is always followed by $-o$, which may be cognate with the W emphatic independent pronoun suffix -o; e.g., neto, mine; niyo, myself, I; mato, yours; piyo, he, she it (emphatic). Since in W this -o does not follow the genitive -n/ $-u n$, it is not clear if it should be reconstructed. Note that SP appears to show two different possessives: SP-M che-lo'-no hek-ke, rabbit-skin blanket, with the general P possessive suffix -no, but also SP-A tiuncuhui, and SP-G tiunsupui, eyelash. If the $-u n$ in the last two forms is the possessive, it would be cognate with the W possessive -un, in which case *-un rather than *-no should be reconstructed. However, because of the poor quality of the SP recordings, the status of -un as a possessive remains uncertain.
512.23 *-in, locative case, is reconstructible based on W -n, -in, locative case, and P -in, locative-instrumental, but no complete words can be reconstructed.

### 512.3 Directional and Relational Suffixes

512.31 *-da, relational nominal suffix, is reflected in W as a sort of intensifier "very, from." It also occurs with adverbs of time (hima•da, a little while ago, le•nda, yesterday). In P it is the comitative case "with." Its basic function is relational ("with" relates two people; in the W adverbs it relates two time periods), which explains its use as, or connection with, the first person subject verbal suffix which relates an incident to the speaker. See discussion in Section 424.1.
512.32 *-e(•)l, *-el, locative, toward, in (horizontally?); cf.*?el-, in horizontally. Probably non-distinctive, the vowel length most likely reflects the loss of the glottal stop of *?el-. This locative is suffixed to morphemes expressing direction or distance in the daughter languages. Completely reconstructible words are: *nomel, *nomelti, west; *norel, *norelti, south; *puyel, *puyelti, east; *wayelti, north (see immediately below for locative *-ti). A meaning "toward, in (horizontally)" is consistent with the suffix's relationship with the prefix *?el-, in horizontally. The W form Tole $l$, up, above, refers to a horizontal aboveness, rather than a going up vertically.
512.33 *- $t i$, directional locative is reconstructed based on $\mathrm{W}-t i$, in, at, locative directional suffix, and P-ti, directional suffix, from, by. It occurs in *yelti, behind, in back of, and with directional terms (see Section 512.32).

## 520. Kinterms

For a full discussion of PW kinship and detailed tables of kinship terms in the daughter languages, see Whistler 1980, who has reconstructed the kinship system as being Omaha-skewed (probably Type III).

The following kinterms are reconstructible. Some occur with *-(.)n, kinterm absolutive suffix, related to verbal *-na, reflexive, and the W generic aspect suffix -n.
*na, *nah ?, mother
*neh, mother
*ne•n, mother
*tah, father
${ }^{*} t a(\cdot) n$, father
*laben, older brother ( ${ }^{*}$-łaben following first or second person possessive pronoun,
*-t + - > $>$ )
*ley, younger brother
*le $\cdot n$, brother-in-law
${ }^{*}$ soh, ${ }^{*}$ so , cross-sibling
*?apan, grandfather
*?aman, grandmother
*čh $a(\cdot) y$, grandchild
*łe, child
${ }^{*} t e h, * t e \cdot ?$, child ?
${ }^{*} t ' e(\cdot) s$, spouse's parent, child's spouse, in-law one generation removed
Kinterms differ from nouns in the case suffixes they take. As many of these suffixes are shared with pronominal case suffixes, they will be discussed in the section on pronouns below.

## 530. Pronouns

Tables 2-4 show PW pronouns that are reconstructible (listed without parentheses) and what the remainder of the paradigms would have looked like if all forms were reconstructible (forms in parentheses). Tables 5-18 show pronominal paradigms in the daughter languages.
Substantival Morphology
Table 2: PW Singular Pronouns

|  | 1st person | 2nd person | 3rd person proximal | 3rd person nonproximal |
| :---: | :---: | :---: | :---: | :---: |
| Subjective | (*ni) | *mi | *?ew | *pi |
| Objective | (*ni-s) | *mi-s | *?ewe-t | *pu-t |
| Genitive | *ne-r | (*mar) | *?ewe-r | *pu-r |
| Inalienable possessive | *ne-t | *ma-t | * ? ${ }^{\text {cwe-r }}$ | *pu-r |
| Alienable possessive | (*ne-t-o) | *ma-t-o | *?ewe-t-no ? | *pu-tu-no |

Substantival Morphology
Table 3: PW Dual Pronouns

|  | 1st person | Inclusive <br> person | 2nd person | 3rd person <br> proximal | 3rd person <br> nonproximal |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Subjective | *ne-pel | *p'e-pel | *mi-pel | *?ew-pel ? <br> *?ew-palel ? | *pi-pel |
| Objective | *ne-pele-t | *p'e-pele-t | *mi-pele-t ? <br> *ma-pele-t? | *?ew-pele-t | *pu-lele-t |
| Genitive and <br> inalienable <br> possessive | (*ne-pele-r) | (*p'e-pele-r) | (*ma-pele-r) | (*?ew-pele-r) | (*pu-pele-r) |
| Alienable <br> possessive | *ne-pele-no | *p'e-pele-no | *mi-pele-no? <br> *ma-pele-no? | (*?ew-pele-no) | *pu-pele-no |

Substantival Morphology
Table 4: PW Plural Pronouns

|  | 1st person | Inclusive person | 2nd person | 3rd person proximal | 3rd person nonproximal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Subjective | (*ne-le) | *p'e-le | (*ma-le ? *mi-le ?) | (*?ew-le) | (*pi-le) |
| Objective | (*ne-le-tt) | *p'e-le-t | $\begin{aligned} & \text { *mi-le-t ? } \\ & \text { *ma-le-t? } \end{aligned}$ | (*2ew-le-t) | (*pu-le-t) |
| Genitive and inalienable possessive | (*ne-le-rr) | (*p'e-le-rr) | (*ma-le-r) | (*?ew-le-rr) | (*pu-le-r) |
| Alienable possessive | (*ne-le•-no) | *p'e-le-no | *ma-le-no | (*?ew-le--no) | (*pi-le•-no) |

Table 5: First Person Singular Pronouns in Daughter Languages

|  | Wintu | Nomlaki | Patwin | South Patwin |
| :--- | :--- | :--- | :--- | :--- |
| Subjective | ni <br> niyo (emphatic) | ni | CC, K, R čh u | choo (M) |
| Objective | nis |  | CC, K, R nat <br> CC na•t | choo't (M) |
| Alienable <br> possessive | neto | nehtum (an. poss.) <br> neto (inan. poss.), <br> nehto (BW) | K, R na•min (an. poss.) <br> CC, K, R na•no, CC na(•)nu (inan. <br> poss.) | choo'-no (M) |
| Inalienable <br> possessive | net | ne(•)t <br> ne (BW) | CC, K, R nay <br> K net <br> CC -ču <br> R -čhu | choo (M) |
| Genitive | ner | ne | CC, K, R nay |  |

Substantival Morphology
Table 6: First Person Dual Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin | South Patwin |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Particular | Neutral | Generic |  |  | nā (M)? |
| Subjective | ne•let | ne•l | ne•lel | ne•la <br> nEl (BW) | K, R nepel |  |
| Objective | ne•lem, ne•let |  | ne•lelum, <br> ne•letum |  | K nepelet, nepet <br> R nepe•t |  |
| Alienable <br> possessive | ne•len |  | ne•lelun, <br> ne•lelen |  | H-U nepelnomin (an. poss.) <br> nepelno (inan. poss.) <br> R nepelenomin, nepelemin <br> (an. poss.) <br> nepeleno (inan. poss.) |  |
| Inalienable <br> possessive |  |  |  |  | K, R nepeley |  |
| Genitive |  |  |  |  |  |  |

Table 7: First Person Plural Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin | South <br> Patwin |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Particular | Neutral | Generic |  |  |  |
| Subjective | nele•t, <br> nitep'urut | nite | nite•rum, <br> nitep'urum | nihtak <br> (BW) | CC, K neč'u | nechu (A) |
|  | Objective | nele•tp'urum |  |  | K neč'ut |  |
| Alienable <br> possessive | nele•n(p'urun) |  | nele•len | nihtakam <br> (BW) | K neč'u•min (an. poss.) <br> neč'u•no (inan. poss.) <br> R neč'u•nomin (an. poss.) |  |
| Inalienable <br> possessive |  |  |  | K neč'uy |  |  |
| Genitive |  |  |  |  |  |  |

Substantival Morphology
Table 8: Inclusive Person Dual Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Particular | Neutral | Generic |  | Patwin |
| Subjective | p'e•let | p'e•l | p'e•lel | p'e•l | K, R p'epel |
| Objective | p'e'lem |  | p'e•lelum, <br> p'e•letum |  | K p'epelet <br> R p'epe•t |
| Alienable <br> possessive | p'e•len |  | p'e•lelun, p'e•lelen |  | L-U p'epelnomin (an. poss.) <br> p'epelno (inan. poss.) <br> R p'epeleno (inan. poss.) |
| Inalienable <br> possessive |  |  |  | K p'epeley |  |
| Genitive |  |  |  |  |  |

Substantival Morphology
Table 9: Inclusive Person Plural Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin | South Patwin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Particular | Neutral | Generic |  |  |  |
| Subjective | p'ele•t | p'ele | p'ele•s | p'ele', p'etaq | K p'ele |  |
| Objective | p'ele•m |  |  |  | K p'elet R p'ele•t |  |
| Alienable possessive | p'ele $\cdot \mathrm{n}$ |  | p'ele•len | pel-lā'-toon (M) | K p'ele•nomin (an. poss.) p'ele•no (inan. poss.) R p'ele min (an. poss.) | pel-lā'-num-min (M) |
| Inalienable possessive |  |  |  |  | R p'eley | pā-lā (M) |
| Genitive |  |  |  |  |  |  |

₹
Substantival Morphology
Table 10: Second Person Singular Pronouns in Daughter Languages

|  | Wintu | Nomlaki | Patwin | South Patwin |
| :--- | :--- | :--- | :--- | :--- |
| Subjective | mi <br> miyo (emphatic) | mi, mi?a | CC, R mi | mi (A) |
| Objective | mis | mis (BW) | CC, K mit <br> R mis | mot, mit (M) |
| Alienable <br> possessive | mato | mohtum (an. poss.) <br> mota (inan. poss.) <br> mohto (BW) | CC, K matomin (an. poss.) <br> CC, K mato (inan. poss.) <br> R matono (inan. poss.) | mo'-to (M) |
| Inalienable <br> possessive | mat | ma (BW) | CC ma <br> CC, R mat | mah (M) |
| Genitive | mar |  |  |  |

Table 11: Second Person Dual Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki |  | Patwin |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Particular | Neutral | Generic |  |  | South Patwin |
| Objective | ma•lem |  | ma•letum, <br> ma•lelum |  | K mipelet <br> R mipet |  |
| Subjective | ma•let | me•l | me•lel | me•l-palel | K, R mipel | mip'-pel (M) |
| Alienable <br> possessive | ma•len |  | me•lelen, <br> ma•lelun | mel pah-lā-toon <br> (M) | H mipelnomin (an. poss.) <br> mipelno (inan. poss.) <br> R mapelenomin, mapelemin <br> (an. poss.) <br> mapeleno, mapelno (inan. <br> poss.) |  |
| Inalienable <br> possessive |  |  |  | K mipeley <br> R mapeley |  |  |
| Genitive |  |  |  |  |  |  |

Table 12: Second Person Plural Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin | South Patwin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Particular | Neutral | Generic |  |  |  |
| Subjective | male $\cdot t(p$ 'urut), mitep'urut, mitup'urit | mite | mite rum, mitep'urum | mihtaq (BW) | CC, K, R mile | mile (A) |
| Objective | male tp 'urum | male $\cdot$ tp'ure |  |  | K mile $\cdot \mathrm{t}$ |  |
| Alienable possessive | male $\cdot n$, male•np'urun |  | male•len | mā-tok-toon <br> (M) <br> mihtakam <br> (BW) | H-U male nomin T mile-nomin (an. poss.) CC, T, R male $\cdot$ no CC, T mile•no (inan. poss.) |  |
| Inalienable possessive |  |  |  |  | T miley R (CC?) maley |  |
| Genitive |  |  |  |  |  |  |


|  | Wintu |  |  | Nomlaki | Patwin | South Patwin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Particular | Neutral | Generic |  |  |  |
| Subjective | ? eh |  | ?ew | $\begin{aligned} & \text { ?ew } \\ & \text { ?e (BW) } \end{aligned}$ | CC, R ?ew | $\begin{aligned} & \overline{\text { á'-oo (M) }} \\ & \text { en (A) } \end{aligned}$ |
| Objective |  | Tewet |  | et (J) | R Rewet (an.) T-U Pe•wet (an.) CC 7e• (inan.) R $\mathrm{Re}(\cdot) \mathrm{s}$ (inan.) |  |
| Alienable possessive |  | Rewe(r)tun |  | Tetum (an. poss.) <br> ?eto (inan. poss.) | A-U Rewetno (inan. poss.) |  |
| Inalienable possessive |  | Tewer |  |  | CC Rewey |  |
| Genitive |  |  |  |  |  |  |

$\bar{n}$
Substantival Morphology

| Table 14: Third Person Proximal Dual Pronouns in Daughter Languages |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|   Wintu  Nomlaki Patwin South Patwin <br>  Particular Neutral Generic    <br> Subjective   ?ewelel ?ew-palel CC 7ewpel  <br> Objective   ?eweletam    <br> Alienable <br> possessive       <br> Inalienable <br> possessive      $\bar{a}$ '-pah-lā (M) <br> Genitive       |  |  |  |  |  |  |  |

Table 15: Third Person Proximal Plural Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Particular | Neutral | Generic |  |  |
| Subjective | Pebasp'urut, Pebasp'urit | ? ebas | Tebasp'urum | ? etaq | CC Rewle |
| Objective | Teba•np'urim, ?eba tp'urut, ?eba-np'urut |  | ?eba•np'urum, ?eba•tp'urum |  | CC Rewlet |
| Alienable possessive | Teba np'urun |  | Teba•np'urun |  | H-U ?ewletno (inan. poss.) |
| Inalienable possessive |  |  |  |  | CC Rewley |
| Genitive |  |  |  |  |  |

Table 16: Third Person Nonproximal Singular Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin | South Patwin |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Particular | Neutral | Generic |  |  |  |
| Subjective |  | pi piyo (emphatic) |  | $\begin{aligned} & \text { pi (BW) } \\ & \text { pe', pe'-ah (M) } \\ & \text { pipa (S) } \\ & \hline \end{aligned}$ | H, R pi | pi (M) |
| Objective | putam | put |  | put | CC $7 u(\cdot) t$ (an.) <br> K, R 7ut (an.) <br> CC pi•t (inan.) | oot (M) |
| Alienable possessive |  | pur |  | putum (an. <br> poss.) <br> poo-toon' (M) <br> (inan. poss.) | K 7u•nomin (an. poss.) CC, K, R ?u•no (inan. poss.) R 7u•min (an. poss.) |  |
| Inalienable possessive |  | putun | puris | putuna (BW) | CC, K, R ?uy | oo-e (M) |
| Genitive |  | pir |  | puy |  |  |

Table 17: Third Person Nonproximal Dual Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Particular | Neutral | Generic |  |  |
| Subjective | pule•t, pu•let | pe•1 | pe•lel | piloqE1 (BW) | CC, K pipel |
| Objective | pule•m, pu•let |  | pule-lum, pule•tum, purunis |  | K pipelet (inan.) K, R ?upelet R 7upe(•)t (an.) |
| Alienable possessive | pule•n, pe-len, pule-np'urun |  | pe•lelun, pule len, pe•lelen, pule-ntun, pe•lentun | piloqam (BW) | H-U, T-U ?upelnomin (an. poss., an. possessor) CC Tupe-Inomin T-U pipelnomin (an. poss., inan. possessor) CC ?upelno (inan. poss.) R ?upeleno (inan. poss.) |
| Inalienable possessive |  |  |  |  | R ? upeley |
| Genitive |  |  |  |  |  |

Table 18: Third Person Nonproximal Plural Pronouns in Daughter Languages

|  | Wintu |  |  | Nomlaki | Patwin |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Particular | Neutral | Generic |  |  |
| Subjective | pite rut, pitep'urut, puba•tp'urut, pip'urit, piyap'urit | pite | pite•rum, pitep'urum, puba•tp'urum | pi $\cdot$ taq (W), <br> pihtak (BW), <br> piitaqa (S) | CC, K, R pile |
| Objective | puba.np'urum |  | putp'urim |  | CC, K, R ?ule•t <br> K ?ulet <br> K pile•t <br> CC pi•t (?) <br> R ?u•let (?) |
| Alienable possessive | puba•np'urun, pele•n, puba•np'urin |  | pitep'urun | pe'-tawk-toon (M) pihtakam (BW) | CC Tule-nomin (an. poss.) <br> ?ule-no (inan. poss., an. possessor) <br> pile no (inan. poss., inan. <br> possessor) <br> R ?ule•min (an. poss.) |
| Inalienable possessive |  |  |  |  | R ?uley |
| Genitive |  |  |  |  |  |

## 531. Composition of Pronouns

The order of pronominal morphemes in PW is: root - number - case.

### 531.1 Pronominal Roots

All pronominal roots are of the shape CV-.
531.11 First person: *ne (and most likely also *ni). *ni (if reconstructible) occurs only in the first person singular subjective and objective; *ne elsewhere. P has innovated $\check{c} u / \widetilde{c}^{h} u$ for first person singular subjective and inalienable possessive, and in the first person singular objective and possessive cases also uses a root na- in analogy with second person $m a$-. It has suffixed č' $u$, probably a kin of ču $u \check{\mathbf{c}}^{h} u$, to the root ne- in the first person plurals, as if reinterpreting ne- to mean non-singular. The glottalization of č'u may reflect the loss of another suffix, such as *-le, plural. W has extended the use of the high vowel root to plural subjects where it uses an innovative plural suffix -te.

### 531.12 Inclusive person: * ${ }^{\prime}$ 'e

531.13 Second person: *ma, *mi. *mi is used in the singular subjective and objective, in the dual subjective and possibly in the plural subjective. In the dual objective, dual alienable possessive and plural objective, the reconstruction could be either *ma- or *mi-. Possibly the two roots were in variation in these PW forms. Elsewhere ${ }^{*} m a$ is used. P has extended the high vowel root to dual possessives (varying with the low vowel root) and to some plurals, in some cases again varying it with the low vowel allomorph.
531.14 Third person proximal, actually demonstrative and quasi-pronominal: *?e-. This root actually reconstructs as *?ew, but the $-w$ may have originally been epenthetic. $?_{e}$ - is found without $-w$ in various non-cognate forms in the daughter languages. In PW, an epenthetic e is inserted between the $-w$ and before case suffixes *-r and *- $t$ (see below). *?e- is related to *?iy, be, do, use (non-distal?).
531.15 Third person nonproximal, actually demonstrative and quasi-pronominal: *pi, ${ }^{*} p u$. ${ }^{*} p i$ occurs in the singular subjective, the dual subjective and possibly the plural subjective; *pu elsewhere. P uses suppletion in the nonproximal third person, partially basing it on ${ }^{*} p i$ and partially on ${ }^{*} ? u$, the copula of distance. $\left.{ }^{*}\right\} u$ is the counterpart of *?iy, be, do, use (non-distal?), which is related to third person proximal *?ew. It is possible, but unlikely, that there was a third PW third-person paradigm, distal, entirely based on $* ? u$. More likely, P mixed the two roots in the creation of its paradigm, particularly since distal $? u$ - makes a better contrast to nondistal lew- than neutral pi-. Note that P always uses the p -form before the vowel i , but never before $-u$, where $? u$ - is substituted. It could be argued that $P$ dropped the $p$ of *pu-, but there is really no good justification for this, since $P$ does have other morphemes in $p u$-.

### 531.2 Number

531.21 Dual: *-pel (*-pele before a consonant), related to *pan (also *pal ?), two. W , but not P , has contracted the duals, dropping the p; e.g., *nepel $>$ ne $\cdot l$, ${ }^{*}$ mipel $>$ me $\cdot l$, *p'epel > p'e•l.
531.22 Plural: *-le (*-le before a consonant). The long vowel preceding a consonant indicates that a consonant has been dropped. This consonant was most likely 1 , relating plural *-le to the W root-deriving distributive pluralizer -VlVlVh, which translates as "many separately to ..."; e.g. bo•loloha, to pulverize; xi•nililiha, many to sleep separately; č'eweleleha, many to be wide open. This W suffix is in turn related to a numeral suffix -lel, which means "two"; e.g., ?ewelel, these two; hesta•mlel, how are you two? This may be the source of W pa•lel, two, together with *pan- or *pal-, two; cf. pan- move (with two feet). It follows that a pre-PW plural may be reconstructible as **-lel.

W has introduced two new plural suffixes. One is -te, which occurs, in variation with other plural formations, in the first person subjective (nitep'urut or nele $\cdot t$, plural subjective particular; nite, plural subjective neutral aspect; nite•rum or nitep'urum, plural subjective generic aspect); the second person subjective (mitep'urut, mitup'urit, male•t, plural subjective particular; mite, plural subjective neutral aspect; mite•rum, mitep 'urum, plural subjective generic aspect); and the third person nonproximal subjective (pite•rut, pitep'urut, plural subjective particular; pite, plural subjective neutral aspect; pite•rum, pitep'urum, plural subjective generic aspect). It is not used in the inclusive person, which has the most conservative paradigm, or the third person proximal. Both third persons use a plural suffix $-b a$, from *-ba, kinterm plural (or human plural ?). In the proximal third person, $-b a$ is the only plural used (Rebasp'urut, subjective particular; Rebas, subjective neutral aspect; Tebasp'urum, subjective generic; Reba•np'urim, Reba•tp'urut, Reba•np'urut, objective particular; notice the uncertainty concerning the status of objective case $-t$, see 531.322; Teba•np'urum, Teba•tp'urum, objective generic; Reba•np'urun, genitive and possessive particular and generic (both inalienable and alienable)). In the nonproximal third person, $-b a$ varies with both -le and -te plurals: puba•tp'urut, pite•rut, pitep'urut, subjective particular; puba•tp'urum, pite•rum, pitep'urum, subjective generic; puba•np'urum, objective particular; puba•np'urun, pele•n, puba•np'urin, genitive, alienable and inalienable possessive particular. The introduction of the suffix ${ }^{*}$ - $b a$ into the pronominal paradigm may have been hastened by the proximity of Klamath plural pronouns in a and a•, such as: na•d, $n a \cdot l$ 's $n a \cdot d s$, $n a \cdot l$ 'm, first person plural subjective, objective, possessive, respectively; $3 a \cdot d$, ma•l's/ma $\cdot d s$, mal'm, second person plural subjective, objective, possessive, respectively; sa, sas, sam, third person plural subjective, objective, possessive, respectively; $b a \cdot d$, mna $\cdot l s$, mna $\cdot l$ 'm, third person intensive subjective, objective, possessive, respectively. Note, however, that the closest resemblance is among singular, not plural, Klamath pronouns: $b a s, b o \cdot s, b a$, third person intensive singular objective (Barker 1963: 239-242).

N has introduced a plural suffix -taq of unknown origin; e.g. mihtaq, second person plural subjective; p'etaq, inclusive person plural subjective; pi•taq, third person nonproximal plural subjective; ?etaq, third person proximal plural subjective.

### 531.3 Case

### 531.31 Subjective

Subjective case is unmarked.

### 531.32 Objective

531.321 Singular second (and probably also first) person objective is marked by ${ }^{*}-s$, a suffix which is unique to the pronominal paradigms. *nis and *mis may have been borrowed from Klamath, where they occur with identical form and function. In Klamath, $-s$ is the regular objective case suffix in the pronominal paradigm (e.g., bas, $b o \cdot s$, third person intensive object; $n a \cdot l$ 's, $n a \cdot d s$, first person plural object; ma•l's, $m a \cdot d s$, second person plural object; etc., Barker 1963: 239-242). It is possible that the original vowels in PW pronouns were $* \mathrm{e},{ }^{*} \mathrm{a}$ and ${ }^{*} \mathrm{u}$ and that ablaut began with the borrowing of these forms and then spread to other parts of the paradigms. Klamath also has ablaut in singular pronouns: first person i, e; first person intensive o , e; third person intensive, i , a, o. On the other hand, vowel alternations, although not formal ablaut, were common in PW. If *nis and *mis were not borrowed from (pre-)Klamath, objective case ${ }^{*}-s$ may be related to the nominalizer ${ }^{*} s$, which in turn is related to the W generic aspect marker $-s$.
531.322 In the third persons singular and all persons in the dual and plural, objective case is marked by ${ }^{*}-t$, which is also the objective case suffix for kinterms. It is related to W particular aspect $-t$. Presumably because of homonymy of $-t$, objective, and $-t$, particular, W has replaced the former with the nominal objective case suffix $-m$, -um (related to W generic aspect $-m$ ) from *-ma in many pronouns. *-t only survives in its objective meaning in W third persons singular (put, Rewet) and in some duals and plurals where it is used together with -m, -um, in some cases via suffixation of a new plural suffix -p'ur, related to the verbal reciprocal (e.g., ne•letum, first person dual objective generic, with objective -um suffixed directly to older *-t, objective; nele•tp'urum, first person plural objective; male•tp'urum, second person plural objective). Although the last two forms denote particular aspect, the $-t$ is not the particular suffix but the objective because it parallels alienable possessive particular nele $\cdot n$ (p'urum) where $-n$ is the possessive. The PH reflex of $*_{-} t$ is $-t$, objective case suffix on kinterms and pronouns.

### 531.33 Genitive

The genitive case is marked by ${ }^{*}-r$ in all persons and numbers. It is also used with kinterms. Its reflexes are $\mathrm{W}-r$, which marks singular pronouns as agents of passive verbs and marks third person singular pronouns as inalienable possessors;
and $\mathrm{P}-y$, pronominal genitive and inalienable possessive case and genitive kinterm case inflection. $\mathrm{PW}^{*}$ - $r$ therefore most likely functioned to mark agents of passive verbs, as well as inalienable possession, except in the first and second persons singular (see immediately below).

### 531.34 Inalienable possessive

In the first and second persons singular, inalienable possession is marked by *-t, related to, or identical with, the objective case suffix *-t, and related to the W particular aspect suffix - $t$. In all other persons and numbers, inalienable possession is expressed by genitive *-r. In the first person, P has leveled, using nay with genitive $-y$ (from *-r).

Whether inalienable possessive pronouns were prefixed to kinterms or stood independently is unclear at this time. The most likely candidates for prefix status would have been the singular pronouns. If they were prefixed, their status would have been like that of the directional and locational prefixes to verbs, which also functioned as independent words. In both W and P , inalienable possessive pronouns are sometimes prefixed and other times stand as independent words. E.g.,
W net-nen or net ne $\cdot n$, my mother; nettan, my father; pu tan or putan, his, her, their father; mani•n ( $<$ *matnen), your mother; neto ne $\cdot h$, my mother (with alienable possessive pronoun)
PCC nay t ${ }^{h} a p a \cdot n$, my uncle, but mat $t^{h} a p a \cdot n$, your uncle, and 7 uyt $t^{h} a p a \cdot n$, his uncle; matapan, your grandfather, but ?uy tapan ?is pi, that's his grandfather

The kinterm prefix ${ }^{*} n(i)$-, resulting from metanalysis of first person possessive, may point to an older inalienable possessive prefix ${ }^{*} n i$, which lost its independence, necessitating the innovation of the later PW inalienable possessives (identical to objectives), which did not have sufficient time to develop into bona fide prefixes. *n(i)- is reflected in W niča $a \cdot \cdot)$ y, grandson, niča( $\cdot)$ men, niece, granddaughter (vocatives minčay, yenčay, niča•men, yenčamen) and in P nik'an, co-spouse (Whistler 1980: 265).

### 531.35 Alienable possessive

In the singular second (and probably also first) person(s), alienable possession is marked by suffixing ${ }^{-} o$ to inalienable possessive ${ }^{*}-t$. In all other persons and numbers, except third persons singular, alienable possession is marked by suffixing *-no, whose $o$ may be identical with *-o, to the number morpheme. It is also possible that singular ${ }^{*}-o$ derives from an earlier ${ }^{*}$-no, i.e., ${ }^{*} *_{m a t-n o}>{ }^{*}$ mat-o. In other words, singular inalienable and alienable possessive pronouns may at one time have been identical to objective case pronouns, all marked by *-t. Later *-no was suffixed to *- $t$ to mark alienable possession, which then contracted to ${ }^{*}$-to. Finally, first and second person objective pronouns ${ }^{* *}$ net and $* *$ mat were replaced with *nis and *mis, perhaps borrowed from pre-Klamath. Another possibility is that Nomlaki's -um in nehtum, first person singular alienable possessive (animate possessed) and mohtum, second person singular alienable possessive (animate
possessed) is archaic and points to an origin of ${ }_{-o}$ in ${ }^{* *}$-um. However, a N innovation, perhaps based on nominal objective case -um, is just as likely in these two pronouns. Finally, *-to in *neto and *mato could also be related to agentive *-to, *-tu?

In the singular third persons, alienable *-no still follows objective or inalienable possessive ${ }^{*}-t$. This ${ }^{*}-t-n o$ combination also serves as the alienable possessive marker for kinterms. Its W reflex is the alienable possessive suffix -tun for third person singular pronouns and kinterms. In N the same form is attested for third person singular and one plural pronoun, but not for kinterms, probably due to lack of data. The PH cognate is the kinterm alienable possessive suffix -tno (e.g. ta•tno, father's) which does not appear to be used with pronouns.

The W reflex of $*_{-o}$ is $-o$, an emphatic independent pronoun suffix that occurs not only with singular possessives, but also to mark emphatic singular subjective. While it is possible that $-o$, if originally from possessive $*$-no, spread to non-possessive pronouns to indicate emphasis, $\mathrm{W}-o$ can also be related to the W vocative particle $y o$ (related to the exclamative ${ }^{*} y o \cdot$ ) and perhaps ultimately to PW $* ? u$, do/be at a distance. However, since a vocative *ye is reconstructible, but not a vocative *yo, it is also possible that yo is a W innovation based on exclamative *yo. in which case $\mathrm{PW}{ }^{*}-o$ cannot ultimately be derived from ${ }^{* *}-y o$. Another possibility is that PW had two vocatives, *ye and **yo, matching the proximal and distal *?e and $* ? u$, in which case P has lost the reflex of **yo.
531.36 *-t-in ?, kinterm locative case, was tentatively reconstructed by Whistler (1980: 262). The PH reflex is -tin, kinterm locative, but W shows the regular -in, locative, without the $-t$. If *-t-in existed in PW, its formation parallels that of *-t-no; however, the addition of the $-t$ may be an innovation in PH .
531.37 In addition, P has created an animate possessed/inanimate possessed distinction for alienably possessed entities by suffixing -min to indicate animate possessed; e.g., na•min, first person singular alienable possessive animate possessed vs. na•no, first person singular alienable possessive inanimate possessed; male nomin, second person plural alienable possessive animate possessed vs. male•no, second person plural alienable possessive inanimate possessed. This occurs in all persons and numbers.

N has innovated the same distinction, but since only a limited number of forms have been preserved, all in the singular, it is not clear if the distinction held true in all persons and numbers. The following are found: nehtum, first person singular alienable possessive animate possessed vs. neto, inanimate possessed; mohtum, second person singular alienable possessive animate possessed vs. mota, inanimate possessed; putum, third person nonproximal alienable possessive animate possessed vs. putun, inanimate possessed; ?etum, third person proximal inalienable possessive animate possessed vs. Reto inanimate possessed. N makes use of a suffix $u m$, which may be of the same lineage as W objective -um.
531.38 The reconstruction of *ye, vocative, is problematic because its W reflex ye-, $y e-$ is a prefix, while the PH reflex is $-e \cdot$, a vocative suffix (Whistler 1980: 216). The
two forms are almost certainly cognate, but their placement in PW kinterms remains uncertain.
531.39 A second vocative ${ }^{*}-k$ is reconstructible based on $\mathrm{W}-k$, vocative suffix, and PH -khe', vocative suffix (Whistler 1980: 216), which combines *-k with *ye.

## 600. DEMONSTRATIVES AND DEICTICS

610. The demonstrative-interrogative root is *he, *hi, which probably had the same range of meanings as in the daughter languages (refer to sets). It is reconstructible in two full words, *heke, where, and *heket, which specific one. It may be diachronically related to ${ }^{*} p^{h} e k a \cdot y-i / u$ ? *hika•y-i/u? stand (cf. W hEk, stop, stand, stop in a standing position) and/or *hen, arrive. It is also related to the W particular aspect marker $-h$, perhaps via a definite article function.

Although the analysis of the PR-U form heketta, which one?, is uncertain, if a reconstruction of *heket, which specific one, is correct, it may possibly indicate that *- $t$ already had particular or specific aspect function in PW, initiating the proliferation of the particular/generic aspect distinction in W , with $-t$ being the most common particular aspect suffix.
620. *ho is a past demonstrative root meaning "old, already, long ago, former." It is related to *hom, alone, and to the demonstrative-interrogative root *he, paralleling distal *?u and non-distal *?iy. No complete words are reconstructible.
630. ${ }^{*} k^{h} e$ is a deictic root reflected in P as $\check{c}^{h} e$, "now," and in several stems in W (see sets). It is related to *ke-, have, own, get; *kel-, far, travel; * $k^{h} e n, k^{h} e n t i$, down;
*- $k^{h} e n$, may, might, lest, and possibly also to *- $k$, completive and ${ }^{*} q a$, referential.

Section references to the grammatical sketch follow the reconstructions.

# COGNATE SETS AND RECONSTRUCTIONS 

Alphabetical Order:<br>$\mathrm{a}, \mathrm{b}, \check{c}^{\mathrm{c}}, \check{c}^{\mathrm{h}}$, č' $^{\prime}, \mathrm{d}, \mathrm{e}, \mathrm{h}, \mathrm{i}, \mathrm{k}, \mathrm{k}^{\mathrm{h}}, \mathrm{k}^{\prime}, \mathrm{l}, \nmid \mathrm{m}, \mathrm{n}, \mathrm{o}$, $\mathrm{p}, \mathrm{p}^{\mathrm{h}}, \mathrm{p}^{\prime}, \mathrm{q}, \mathrm{q}^{\mathrm{h}}, \mathrm{q}^{\prime}, \mathrm{r}, \mathrm{s}, \mathrm{t}, \mathrm{t}^{\mathrm{h}}, \mathrm{t}^{\prime}, \lambda^{\prime}, \mathrm{u}, \mathrm{V}, \mathrm{w}, \mathrm{x}, \mathrm{x}, \mathrm{y}$, ?

## PLEASE NOTE:

Resemblant forms cited in non-Wintun languages are not intended to suggest genetic relationship. It is for the reader to decide if they are possible cognates, borrowings, areal terms or coincidence.
${ }^{*}$-a, ${ }^{*}$-a , realis stem-deriving suffix (423.23); cf. *-?a, have (auxiliary)
See *č'eb-a•, to scrape, scratch; *lel-a/i/u, make; *łey-a, throw; *łim-a, cave in;
*man-a', miss; *min-a, be nothing
cf. Klamath a, indicative, declarative (Barker 1963: 41)
b
*-ba, kinterm plural (or human plural ?) (512.1); cf. *pan (also *pal ?), two; *pano(•)ł, three
W -ba (-bas, g; -ba•t, objective; -ba•n, genitive), plural suffix occurring only with third person pronouns and with xeribas, "a group of young men"; cf. bO-, many, much, big, more
PCC, K, R -ba, human plural suffix, possibly originally a kinterm plural which was extended
PA-U namin hayuba čukuyba Tibus, my dogs are good pets (here -ba occurs with "dog," perhaps having been extended to an animate plural, or because dogs are considered family)
SP-M tā'-bah, family (cf. *teh, *te• ?, child)
Whistler (1980: 215-6) suggests that kinterm "plurals are probably in some sense aggregatives, with the sense of 'a group of people who are characterized by such and such a kinterm relation' rather than being formal plurals of fully specified relational kinterms."

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*ba', eat (perhaps from *ba-, eat, food + auxiliary *-7a, have > "have food")
W ba , eat
N-W ba', eat; ba•s, food
P ba', to eat
PK ba \(\cdot\), food ( \(<\) ba, eat)
SP-V ba, eat
SP-G ma, to eat (comer)
cf. PM *pe, *pa, to eat (Callaghan 2001: 330); Molala p'a-, p'ä-, eat (Berman 1996:
17); Klamath p'ań, eat (Barker 1963: 306); Nez Perce papá \(c\), eating (nursery word)
(Aoki 1994: 506)
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    *ba•-her, be eaten (with passive)
    W ba•here, be eaten
    PH-U thir wi•tano ba•heribus, the fish got eaten by the man
    *ba-le, going to eat, will eat (with intentional future)
W ba•le, going to eat
PK ba•le č ${ }^{\text {h }} u$, I'm gonna eat
PR-U ba•le, I will eat
yalule mis ba•le?, I'm going to let you be so that you can eat
SP-G chumaleina (yo comere), I will eat
*ba-le-s, being able to eat, going to eat (nominal)
W ba•le•s ni, I will, might, could, should, would, ought to eat
PCC ba•les, eat! (you tell somebody)
hatt ${ }^{\text {h }}$ u pi•t ba $\cdot$ les, pick it (fruit, etc.) to eat it (later)
*ba•-ma, feed (with causative)
W ba•ma, give to eat, feed; ba•ma•, make eat
PH ba•ma, to feed
PL-U Tilayma ču namin bamas, I'm feeding my baby
*ba•-r ? *ba--ro ? eat (subordinate)
W ba•r, eat (subordinate)
PR $\quad$ e $\cdot$ s ba $\cdot$ ro har, eat this and go!
*ba $\cdot-\mathrm{s}$, food, eating
W ba•s, food
P ba's, food
PCC ba's pi, he ate
PR $\quad \mathrm{t}^{\mathrm{h}} \mathrm{i} \cdot \mathrm{rma}$ ču ba•s, I ate fish a little while ago
PT-U, PL-U ba•s ču, I'm eating
*ba-s-to ?, *ba-s-tu ?, eater (with agentive)
W ba•sto', eater
PR-U thirma ču bahtu, I eat fish [I'm a fish eater]
PH-U ču hawer?an ba•stu, I'm a fast eater
*bal-7a, tell a lie; cf. *bo•l-e, tale
W bala, to (tell a) lie
N-BW bala-, lie, deceive
PCC, K bal?a, to lie
PR balu-, to tell someone
*bam, pack tight, arrange clumped material ?
W bam-, put, arrange, part, carry, close; ken-bamča, to close down; se-bamča, to part hair or twigs of brush, to separate, cleave; xun-bamča, to pack a thing tight, as clothes in a box; cf. bam-, fist, clumped together, cleave; sem bamaqana•, to make a fist

PH-U ?olpuro bamparo, smother (see *?ol, up; *phu( )r-u, breathe; *-pa ? *-paq ?, benefactive; *-ro ? *-r ?, subordinating suffix), "pack tight on someone's breathing"
*baq, low-growing plant sp.
W baqi, brush, bush, thicket, woods, low brush
NT-M bah'-ke, brush or chaparral
PCC, K, T, R bak, Marah sp. ("wild cucumber"); cf. PK, PT baka•kay, oak gall; PCC bakak, oak gall
*bay, action with fire
W baya, to cauterize, do by fire; to look for something with a pitch torch; bayi, partially burned log (bark burned off ?); cf. bayi, (black oak) tree bark, bark of oak trees only
PR bay, $\log$ (i.e., heat-treated wood ?)
*bey (before vowel), *be• (elsewhere), lie, be; auxiliary of indefinite duration (or imperfective - inanimate connecting via duration) (421.1); cf. *pi-, *pu-, demonstrative and quasi-pronominal third person root
W bEy-, to be lying down; biya, indicative stem; be-, be $\cdot-$, imperative stem
bEy-, imperfective aspect attributive auxiliary; be-, be--, imperative stem
N-G maibehkuda, I would like to lie down with you
N-BW be-, to be; kEnbe-, lay down
PCC be $\cdot$, to be (inanimate locational)
-be, to be (inanimate inflectional auxiliary suffix)
PCC, T -bom, -bem, quotative auxiliary ( $<-$ bo, to be, animate locational auxiliary; -be, to be, inanimate locational aux.)
cf. Molala pi-, be (of inanimates) and Proto-Sahaptian *pe, be situated, be located (of inanimates) (Berman 2001: 346)
*be--di, be + hortative
W be•di, prohibitive auxiliary preverb, exhortative, don't...!
PR wi•le wi•le layuk behdi, let everything be okay (said when someone sneezes)
*be--ma, make lie, let lie (with causative)
W be ma•, to let something lie (there), make a bed for someone; bima•, to have, possess, own; qewel bohem pite rum beme $\cdot \mathrm{s}$, they own(ed) a big house; beme s kuyam, do you want [to be with] it?
NT-M a-la-wahk-bem'-me-nah, empty [nothing being]
PCC bema, leave it alone, let it stay there
PR-U hoya sun behmanan benta kewe, it looks like there used to be a house there
*be-s, being (nominal)
W be•s, lying down, bed, to lie down (as a noun), being; nominal stem of imperfective auxiliary
PCC, $K$ be•s, (it) is, there are
*bey-e-m, be + dubitative
W ?ibiyam, are you?
N-S piyaapem cala, [it is] right, correct
PK pi behem, "that one must been there"; pi behem $\mathrm{k}^{\mathrm{h}}$ onta, that they must been dry; pi behem ?ele•s, he's gone
PL-U Rew t ${ }^{\mathrm{h}} \mathrm{o} \cdot \mathrm{k}$ behemła p'eti bos, in that tree is a bird
(Patwin $h$ is perhaps due to analogy with boh-, see *boh-)
*bil, burn bare; cf. *bay, action with fire; *pil-a , hot; *wil-i/*p ${ }^{\text {hill-i, smooth }}$
W bile $\cdot$, to set fire, to back fire the brush, remove pain by burning, cauterize (cf. bay, cauterize; bih, smoke tobacco)
PCC bil-, to burn off, to fire; sala bil, bare of leaves
PR bil-, burn
*bis- cap-shaped
W-C kolchi bisi, sky cap (mythological object mentioned by Curtin, 1898: 238)
PA-U wenem bisa', eyeball
*bit, indent
W bEt, to dent, bend, mash; bita $\cdot$, to make a dent, to bend or mash, crush
PK bitt ${ }^{\mathrm{h}}$ uro, settle down (to the ground, of flying dust, etc.)
*bi•t? Western meadowlark
N-B wit $\cdot$ colok, meadowlark
PCC, K, T bi $\cdot \mathrm{t}$, Western meadowlark
PR-B bi•t, meadowlark
Irregular w:b correspondence, probably due to folk-etymology
*boh (before vowel), *bo• (elsewhere), sit, be (verb); auxiliary of definite duration (or durative - animate connecting via duration) (421.2); cf. *bey, *be•, lie, be, auxiliary
*boh-a, indicative
*-bu may or may not be reconstructible. It occurs only in the auxiliary in P and only in the verb in W. It may be an instance of drift resulting in vowel raising in both languages (see 243.)
W bOh, verb: live, reside, remain, keep, stay, be in a sitting position, sit, dwell, stay; durative aspect auxiliary
buha, to live, reside, remain, keep, stay, sit, dwell, stay, sit still, be sitting down, be staying at home (indicative); auxiliary: buha, indicative stem, occurs only in ?unibuha, sentence connective deictic shifter (sentence subject remains the same)
boh, verb imperative stem, command: sit! stay! etc.
bo', contracted allomorph of imperative verb stem; imperative auxiliary stem
PCC bo , to be (animate locational)
-bo, to be (animate), inflectional auxiliary suffix
-bu(da), let's all ... (first person plural inclusive)
bo piła, stay there
-bu(da), let's all ... (first person plural inclusive) (Whistler 1981)
PK wenem bo, is (animate) in the middle
$\check{c h}^{\text {h }} u$ bo $\cdot$ t'ibus, I'm gonna be here
k'ana•ro bo• di•huro, (I) was sleeping and woke up
PR boha nat, wait for me; misda bohle, I'll stay with you
bo bo mi ?, are you there?
layuk?aro č̌h bo', I'm fine
po werebo, who's coming
$\check{c ̌}^{\text {h }} \mathbf{u}$ boha ro bo ?ut, I'm waiting for him
PR-U pi hayu piła bohni hoya, that dog was there long ago
SP-M choo' tun-no bo'-te, I'm dancing
SP-A yelobo, wait for
*boh-il, be-with, keep an animate (see *-wil, *-i $(\cdot) 1$, animate comitative)
W bohi $\cdot 1$, live together, be married, cohabit; to keep, maintain, keep someone, support a person (wife), be married, live with someone (cf. bohma', to own something generic (inanimate)); - $\mathrm{i} \cdot \mathrm{l}$, particular comitative
PCC bohil, to retain, keep
PK ?el bohilta, he put that in, locked it up
PR-U wakama piła bohilta, the cattle are inside pi ?ila $\cdot \mathrm{kma}$ bohilta, she's giving birth
*bo- $-\mathrm{m}=$ *bo- + dubitative, $<$ *bohom ? (possibly both of the following apply: *bohom $>$ bo $\cdot \mathrm{m}>$ bom; or: *bo $\cdot \mathrm{m}>$ bom, and $*$ bohom $>$ bo $\cdot \mathrm{m}>$ bom; both Wintu and Patwin have both bo $\cdot \mathrm{m}$ and bVhVm )
W pi po•m be $\cdot$ lebo $\cdot \mathrm{m}$, that ground will always be there; but: buham, hello (literally, do you live ?)
PCC pe•ma no• po•m?u, why not be a deer? (she's sure she'll be a deer) bo•ma pe•ma, alive or not, dead or alive (a collocation)
PK pi bohom, that's him
pi bo•t'ibum piła, I heard he's gonna be there pi bohom, that's him; pi bohom piła bo•s, he must be there
PL-U tihom bom, he is alone (hearsay) piła bohom hayu, the dog was there (know, but not from seeing)
PR nat boham?urbo, don't wait for me
*bo-s, being, is (nominal form)
W bo•s, nominal stem, generic aspect noun; afterbirth, caul, umbilicus, race, tribe, family, house, home, dwelling, camp
ne.l bo-s, we two stayed at home bo $\cdot$ sto $\cdot \mathrm{t}$, residence, dwelling
PCC, T bo $(\cdot)$ s, animate locational auxiliary "to be" (most commonly expresses continuative or imperfective aspect; Whistler 1986: 67-68)
PCC di•huro ču bo•s, I'm already awake ta•ču so rto ?aro bo•s, my father is deaf $\mathrm{pa} \cdot 1$ piła pi bo $\cdot \mathrm{s}$, he's staying there now
PK pi muku•ro bo•s, he's kind of mad, irritated, bothered pi wi ta piła bo $\cdot$ čh $^{\text {h }}$ enti, that man is down there Tibus, that's his boni č chu bakobus, I'm here and I'm counting
PL-U tihom bos, he is alone (see him)
PH-U nop piła ?ibus, there must be a deer there
PA-U khudi bo's, there's a bird there (and see it)
piła hu's bo•s, there's the buzzard
PR-U pi hayu piła bo $\cdot$ sem na $\cdot \mathrm{min}$, that dog there is mine
*bol-a, drink
W bOl-, bula, to drink
N-BW bol-, suck
PCC bo•l-, soak; T-U bola•?, drink (imp.)
SP-V bola', drink
*bo $\cdot 1-\mathrm{e}$, tale, tell a tale; cf. *bal-7a, tell a lie
*bo•le-s-, tell story, have mythical properties ? (intensive)
W bo•la, tell a story, tale; make a speech; bo•lesa, to be transformed, to turn out, i.e., to have mythical properties, to be full of myth. properties; bo•las, story, tale, myth, speech; bo laheres, myth, God (that which is told, he who is told)
N-K bôla, shaman that works by dreaming; G bahłahunbo’ho, tales told to pubescent girls
PK bo•le, dreaming man (type of shaman); T dreamer, spirit; bo•leho, to tell a story, to preach; H-B bo•le, myth
PR bo•le, dream dance, dreamer, story; bo•leso, to tell a story
*bo•lbolVq, butterfly; poppy
W bolboloq, butterfly; also saysayboloq; bolboloq luli, California poppy (luli, flower)
N-W bo•lbolo•q, butterfly; T-M bahl'-bahl'-lŭk; BW balbalak
PCC, K, T ba•lbalik, butterfly, all butterflies; PK also ba•lbalak, butterfly
PK bo lbolik, poppy, evening primrose; PT, CC, C, R poppy, poppies (by metaphoric shift)
PR walalakai, butterfly
SP-M bŭl-lŭl'-lă-ki', butterfly
*bolo, manzanita berries
W boloy, black manzanita berries

N-C bâ-lâi, black manzanita-berries bâ-lâi=mi, black manzanita [manzanita berry tree]
PCC polo•la, green manzanita berries (before they're ripe)
Irregular $\mathrm{b}:: \mathrm{p}$ correspondence
*boq, milkweed; cf. *buq, pus
W boq, milkweed
NG-M bok', broad leaf milkweek (Asclepias)
PCC, K, T bok, milkweed (Asclepias speciosa)
PR-B bok, milkweed
*bul, protrusion; cf. ${ }^{*}{ }^{\mathrm{h}} \mathrm{o}-$, protrude, swell
*bul-i, hill
W *bul, excrescence, protrusion (buli, peak, hill, mountain; buł, bump; bulaq, pile; bol, lump)
PK bul-, pregnant; C buli, meadow; T buli, rolling prairie
PR buli, (low) hill, foothill
*buq, pus, full of pus; cf. *boq, milkweed
W buq (also nuq), pus, mucus, matter; buqe $\cdot$, be full of pus, mucus
PK buk, pus; T festering (wound)
PR buk-, to bud out (of trees); PR-B bek, pus
*čal-a, good; cf. *čał-a, clear
*čal-V sem, right hand
W čala', to be good; čalisem, right hand (sem, hand)
N-S cala, good; cali-sem, right side (good hand)
PR t'ala sem, right hand; talo•ma, to measure (put marks on for something, e.g., clothes), to straighten something out; talo; straight
PA-U t'ala, right side
SP-M tal'-loo, good, tah'-le, new
cf. Alsea c’łyaq-, to straighten; c’łyaqa, straight, correctly (Golla 1997: 161); PMy *cala-, with reflexes including: to be happy, to be content, happiness (Brown 1990: 46)
*čał-a, clear; cf. *čal-a, good
W čała(l), to be clean, clear
PCC, K tał-, tała - -, bald
*čel, rip; cf. *čił-a, give blows to head; *čh ep, hit; *k'il, hail; *či•r, lean meat; *the, crack open; *thil, eat with someone
W čEl-, tear, torn, stripe, strip (čelča, to tear to little pieces, se-čila•, to tear apart, rip into halves; cf. t'e•l, slit or slice fish lengthwise)
PT-U telep, stone for grinding meat by pounding
cf. Alsea c'yał-, to split (tr.) (Golla 1997: 161); PMy *cil, with reflexes including: tear, tear it up, break, breaking in two, shred; Yuki sil, tear, rip; Plains Miwok si:ly-, to skin; Wakashan clt-, to tear (cloth); Tlingit ya-s'eil', tear; Colorado čileno, to tear (cloth) (all from Brown 1990: 46)
*čeqčeq, hawk sp., red-tailed ?
NT-M chěk'-chěk-koo, red-tailed hawk (Buteo borealis)
PCC, T, R tektek, sharp-shinned hawk
*čił-a, give blows to the head; cf. *čel, rip; č ${ }^{\text {h }}$ ep, hit; *theł, crack open
W čEł-, čiła, to stone, to keep hitting with a rock, to give a blow to the head with a stone or other heavy object (in order to split it open ?)
PR tiła•p'iri, fighting one another (could be a war, has to be enemies fighting, not just a few people)
*čok-i, near; cf. *čuk-a, approach
W čoki, near, close
N-J chaw keen, near
PR toči, shallow (of water only)
*čoł-, walk uncertainly
W se-čolča, to stagger ( $\ddagger$ dissimilated to 1 ?; cf. tOh-, stiff, rigid; tu-t ${ }^{\text {thohčuna }}$, stretch legs rigidly in front; $\mathrm{t}^{\mathrm{h}} \mathrm{O} \neq$-, break, broken ?)
PCC, K tołbak, to limp
*čosaq, mosquito
NG-M choo-‘sahk', mosquito
PCC, K, T to•sak; B t'osak, mosquito
PR tosak, mosquito
If we assume that P avoided a final $\check{c}$ by not fronting, the reconstruction may be *čosak. However, the ending ${ }^{*}$-aq is more likely since it may be a fossilized derivational suffix; there are a number of other items with this ending.
*čuk-a, approach; cf. *čok-i, near
W čOk-, čuka•, to approach, overtake, catch up with; cf. č'uq-, join; č'uq-, help
PK -toka, -tuka, toward; CC -tuka, -t'uka, toward
PR -t'uka, -tuka, against, toward cf. Alsea cqi:w-, cqwi:-naku-, to approach, come near (Golla 1997: 161)

$$
\check{c}^{\mathrm{h}}
$$

*-čh , mediopassive (423.11); *-čh -i, nominal/neutral mode; *-čh-u, imperative or irrealis mode
W -č, transitive root-derivational suffix; e.g., lakča, to embrace; minčuna, for a close relative to die, "die on one"; ?oqčit, one who vomited (with nominal stem)

P $\quad-t^{h} i,-t^{h} u$, semelfactive
See *lib-čh -, submerge; *p'ir-čh $-u$, to skin; *yuq-čh - , shake, wake up; *thak-čh -i , dump (granulated solids ?); *thoq-čh $-\mathrm{i} / \mathrm{u}$, lean against (tr.); * $\lambda$ ' op-čh - , insert long things (vertically ?), poke, stick into; *min-č̌ ${ }^{h}-u$, to turn into nothing; *leq-čh $-u$, to be
 rake (toward self ?); *sip-č ${ }^{\text {h }}-u$, straighten, make stiff
*čh ${ }^{\text {a }}$-hay, gray hair
W čahay, gray hair; ča•hay, some gray hair (not a whole head of it)
PK t'a $\operatorname{say}$, gray (hair or whiskers); tha say, gray hair
PR-B $\quad \mathrm{t}^{\mathrm{h}} \mathrm{a} \cdot$ say, gray-hair(ed)
cf. PT-B, PH-B, č'a', gray paint
*čh aq, net; cf. *č'aq-a', hang; *č'e ek, rope
N-C chák-me, dip-net (net attached to bow-and-arrow frame); K tcek, rabbit net
SP-M chel-lo'-na tak'-ke, rabbit net; tuk'-ke, fish net
As Merriam's " t " probably represents $\mathrm{t}^{\mathrm{t}}$, the tentative reconstruction is $* \mathrm{c}^{\text {h }}$
*čha(•)y, grandchild
W niča $(\cdot)$ y, grandson; cf. niča $(\cdot)$ men, niece, granddaughter
N-W če(•), grandchild; BW -c'ey, grandson, ce', grandchild
PCC $\quad \mathrm{t}^{\mathrm{h}} \mathrm{a} \cdot \mathrm{y}$, grandchild; K $\mathrm{t}^{\mathrm{h}}$ ay
PR thay, brother's son, grandson, granddaughter, nephew, niece
*čh ${ }^{\text {ek-i, pitch, resin }}$
W čeki, pitch, resin
PCC, K, R $\quad \mathrm{t}^{\mathrm{h}} \mathrm{ečc}^{\mathrm{h}} \mathrm{i}$, pine gum, pitch
*čh ep, hit; cf. *čel, rip
W čEp-, čipa, to hit, whip, throw, cut, pound, slap, knock, rattle, guess
PCC thepe, to hit
$t^{\text {h }}$ ep, [hit] once
PK $\quad t^{\text {h}}$ epe $\cdot$, to whip
$t^{\mathrm{h}}$ epta, to hit (once)
$\mathrm{t}^{\mathrm{h}}$ epe $\cdot \mathrm{t}^{\mathrm{h}}$ epesok, a whip
$t^{\mathrm{h}} e p$, hit with stick or hand
PR $\quad \mathrm{t}^{\mathrm{h}}$ epe, to hit, to strike
$t^{\mathrm{h}} \mathrm{ep}$, to hit or strike
cf. Alsea cxa:p'-, to throw; cpu:?-, to spill, dump, upset, pour (Golla 1997: 161)
*čh ${ }^{\text {h }}$ ep, hit! (imperative)
W čep, guess! hit! tap!, xan-čep, throw it away!
PR mi $t^{h}$ ep, $t^{h}$ ep mi, you hit it!
PK ?ut thep, hit him!
*čhe $e$ p, hit repeatedly
W če•pa, to rattle, če-pus, rattle (n.)
PCC $t^{\mathrm{h}} \mathrm{e} \cdot \mathrm{p}$, [hit] more than once
PK ?ut bo•ni the•pta, pounding the hell out of him
*čh ep-na, hit self
W pomin čepna•, to throw oneself to the ground; čepna•s kalay, hitting-oneself-gap (placename); se-čepna•, to wiggle, move around
PCC $\mathrm{t}^{\mathrm{h}}$ epnanas č ${ }^{\text {h }} \mathrm{u}$, I hit myself
PK pi thepnanta, he hit himself
*č̌ ${ }^{h}$ epčh ${ }^{\text {h }}$ ep, hit (iterative)
W čepče-pa, to hit one stick to another to keep time; čepče-pus, split stick rattle
PR-U thept ${ }^{\text {h }}$ epta, hit off and on
*čh ep-p'ur-i, hit each other
W se-čepp'ure, to slap each other, to battle
PCC the-pp'iris pipel, they're hitting each other
PH-U kawayu thepp'ita, horses hit each other
*čh ep-her, be hit
W p'ell čephida, we got hit
PCC $t^{\mathrm{h}}$ epheres pi nat, he let them hit me
*čhika, raccoon
N-M che'-kahn, raccoon; B t•cikan, raccoon
SP-M te'-chah, raccoon
The reconstruction of * $\check{c}^{h}$ is based on the assumption that Merriam's " $t$ " represents $t^{h}$

NGT-M chil'-chis-waht, chipmunk (Eutamias)
PCC, K, T čn ${ }^{h} k \breve{c h}^{h} i \cdot k i$, chipmunk; T-U čikči $\cdot k i$, chipmunk
*čh $\dot{1} \cdot \mathrm{r}$, fish sp.; cf. *čh $\mathrm{i} \cdot \mathrm{r}$, lean meat ? calf ?
W či $\cdot$ rus, či $\cdot$ rh, či $\cdot s$, suckerfish (type of spirit); či $\cdot$ rut, sucker sp. or carp
N-S ciit, fish; SS čiyet, fish
PCC, K, T, R $\quad \mathrm{t}^{\mathrm{h}} \cdot \mathrm{r} \cdot \mathrm{r}$, fish
SP-M teer', fish
cf. Alsea c'i:Ş-, to cook, prepare, boil, ripen; Siuslaw tsInx-, scorch; ha-tsi:la:l, meat (ha-, locative) (Golla 1997: 161)
*čh $\dot{i} \cdot \mathrm{r}$, lean meat ? calf ?; cf. *čh ${ }^{\mathrm{h}} \cdot \mathrm{r}$, fish sp., perhaps both ultimately from "lean meat"
W či $\cdot r$, meat, flesh, lean; č'uhčir, calf of leg
PR $\quad \mathrm{t}^{\mathrm{h}} \mathrm{i}(\cdot) \mathrm{r}$, calf
*čh iri k -, fear
*čh iri $\cdot \mathrm{k}-\mathrm{u}-\mathrm{ma}$, to scare someone (causative)
W čiri•ka, to get scared, shocked, frightened, be horrified; čiri•kuma•, to frighten, scare; Pitkin suggests perhaps $<$ čil, restless
N-BW cIktu-, fear, be scared by
PR-U thiri-č-, be scared, terrified; thiri čuma, scare someone
*čhiy-a, call someone; cf. *č'e $(\cdot)$ w-, talk
W čiye', to call; čiyamena', to owe something to someone; cf. č'a•w-, sing
PCC, $R \quad t^{\mathrm{h}}$ iya, to call someone
*čh $\mathrm{o} \cdot 1$, *č ${ }^{\text {h }} \mathrm{o} \cdot \mathrm{r}$, burn; cf. *č'il, black
W čo 1 l, cooked, done; čo ra, nuts to be ripe
NT-M chaw'-lah, cooked, ripe
PCC $t^{\mathrm{h}} \mathrm{o} \cdot \mathrm{r}-$, burn; $\mathrm{t}^{\mathrm{h}} \mathrm{o} \cdot \mathrm{ro}$, fire; $\mathrm{t}^{\mathrm{h}} \mathrm{o} \cdot \mathrm{rma}$, to set fire to
PK thor-, thol-, burn
*č ${ }^{\text {h }}$ olč ${ }^{\text {h }}$ ol, mountain quail; cf. *čh oł, mountain
W č'olč'ol (g), č'olč'oł (p), mountain quail
N-M chōl'-chŭs', mountain quail (Oreortyx); chál-châhl, mountain quail

*čh ${ }^{\text {h }}$ of, mountain; cf. $*$ čh $^{\text {h }}$ oč̌h ol, mountain quail
W čol, mountain; *č'ol, mountain; čolčor, č'olč'oł, mountain quail
N-B t•coL, mountain; S chooł, mountain; PS čol-, hill; C châ-âhl, mountain; coL bihtalat, mountain quail
PCC, K, R $\quad \mathrm{t}^{\mathrm{h}} \mathrm{o}$, $\mathrm{t}^{\mathrm{h}} \mathrm{o} \cdot \neq$, mountain, hill
SP-M tǒs-sl, tǒs ${ }^{1}$, mountain; tos'-sl, tor's, tor ${ }^{\text {ch }}$, Sonoma mountain (or peak)
cf. PY *tulaw, up, high ? > *tulul, mountain, foothill (Callaghan 2001: 323)
*čh ono, dance; cf. *č'on, kick
W čOn-, čuna, to dance; čono-, nominal stem
$\mathrm{N} \quad$ čh $^{\mathrm{h}}$ ono, dance; č ${ }^{\mathrm{h}}$ ono $\mathrm{k}^{\mathrm{h}}$ ewel, dance-house (forms given to Whistler by PK speaker Oscar McDaniel)
PK thono, a dance
$\check{c h}^{\text {h }} u$ thonle, I'm gonna dance
PCC pi thič'am Pele•s $\mathrm{t}^{\mathrm{h}}$ ono', he doesn't know how to dance
$t^{\text {h }}$ aknanas pi thono't'o, he's getting dressed up to dance
PH-U thonpabusču, I step on it
PL-U thonosok, dance
PT-U thono', dance
PR-B $t^{\text {h }}$ ono, to dance
*čh ono-s, dance (n.)
W čonos, dance (n.)
PT-U thonos win, everybody's dancing
*čh op, stuck
W čupal, to be jammed in, stuck
PCC $t^{\text {h }}$ opt ${ }^{\text {h }} u, t^{\text {h }}$ opt ${ }^{\text {h }}$, tight, stuck
*čh ${ }^{\text {º }}$ q, tree; cf. *č'oq, dry and stiff; *k'ok, brace
$\mathrm{W} \quad$ čo $\cdot \mathrm{q}$, pole, young tree
PCC, K, T, R tho $\quad$, tree, shrub, stemmed plant
PCC $\mathrm{t}^{\mathrm{h}}$ oki, oaks all together, forest, grove
PT-U $\quad t^{\mathrm{h}} \mathrm{o} \cdot \mathrm{ki}$, bunch of trees
*čh $u d a y$, woodpecker sp.; cf. *č'uduk, woodpecker sp.
W čuday, woodcock crest, redheaded woodpecker crest?, bird scalp
PR thoday, acorn woodpecker
*čh ur-, twins
W čure•s, twins, cf. č'an, (one) half, (one) side, symmetrical opposite of other half
PCC thudum, twins
PK čhuru•č̌uru, twins (irregularly not fronted - cf. *č'ur-, cricket)
č'
*č'ap-, collect
W č'ap-, collect, arrange, stack, locate, place; č'apana•, to collect anything (junk, trash, debris)
PK tapan ?, dung beetle (Whistler 1976e, originally from Merriam; could be t'apan)
*č'aq-a•, hang (something live?); cf. *č'e•k, rope; *čhaq, net
W č'aqa', to hang; Pitkin distinguishes č'aqa, to hang something up, and č'aqa•, to hang up, hang an animal, person, live thing
N-BW olcaka', hang
PCC, K t'aka', acorns [hanging] on tree
PR t'aka, acorn ("the whole thing"), a crop of acorns
*č'aro $\cdot q(-i)$, grass, green
W č'aru $\cdot q$, grass, edible clover, greens, green; č'aru $\cdot q i$, clover, grass, green
NG-M chi'-yok', grass (any); C cha-yó-ka, green
SP-V tcalo' $\mathrm{k}^{\text {c }}$, yellow; M chul-lo'-ke, chal-lo'-ke, white (irregular)
The SP forms may be a reflex of PW *k'al, intense visual perception, in which case this is not a good set.
cf. Alsea su:lha?k, grass (Golla 1997: 165)
*č'at-u, morning star; cf. *č'ay-a, to light a fire
W č'atu•s, star
N-G tc'áxtitluyuk, morning star

PCC t'ati, dawn, become daylight; PK t'at ${ }^{\mathrm{h}} \mathrm{i}$, $\mathrm{t}^{\text {' } a t^{\mathrm{h}} u-\text {, daylight }}$
PR t'ati, t'atu-, early morning, to dawn (before sunrise)
*č'ay-a, to light a fire; cf. *č'at-u, morning star; *say-i/u, light
W č'aya•, to split pitchwood (as for kindling into torches and candles)
PCC, R t'a•y-, to light (a fire)
*č'ayi, fresh-water mussel
N-C chá-it, fresh-water mussel
PCC t'ayi, t'ayi, small clam found in the creek; T t'ayi, clam, fresh-water sp., marsh clam sp.
PR t'ayi, mud clam, found in marsh under the tules
*č'ayi $(\cdot) \mathrm{k}$, scrub jay
W č'ayi( $\cdot$ )k, č'ayk, scrubjay
NT-M chi'‘-ik, G-M chī $k$, California jay; BW caikcaik, jaybird; H c'ayt, bluejay
PCC č'ayi•t, scrubjay, any bluejay, jaybird; K č'ayi•t, scrub jay; T č'ayi(•)t, scrub jay
PR č'ayč'ayt, č'ayit, scrubjay
SP-M si-e'‘'ch, California jay
Irregular correspondence; widespread sound-symbolic areal term
*č'eb-a', to scrape, scratch; *č'ib-i-, nominal stem; *č'eb-, arrow shaft; cf. *k'eb-i/u, loosen by scratching
W č'iba', č'ibe', to scrape or scratch with a knife-type instrument; č'ibi•ya, to whittle; č'ipčus, arrow (especially the shaft); č'ipču•s, untipped arrow
PCC t'eba', to nick; PK t'ibi, whittling
PR-U t'ebi, shaft of arrow
*č'i $\cdot b-a$, shave off with sweeping motion
W ken-č'i•ba, to shave bark, shave something clean, off, down
PCC t'i ba, to sweep (plural); t'i•bt ${ }^{h} u$, to brush off (singular); K t'i banan-, comb one's hair
PR t'i•ba, to sweep, brush off; t'iba, sweeper
*č'e $\cdot \mathrm{k}$, rope; cf. *se•k, root; *čh aq , net; *č'aq-a', hang
W č'e k (us), rope
N-G tcek, strings
PH-U, PT-U t'e $\cdot t$, rope; B big rope
PR-B t'e•t, rope
*č' ekey, hair (facial or animal); cf. *sekey, hair of body; *č'i•k, rough skin
W č'ekey, body hair, animal fur or hair, facial hair; cf. *č'E, bind, tie, tight, bound, strands, long flexible material for tying (č'ek, hair; č'ew, braid; č'ey, lengthen; č'e e , rope; č'it, tie)
N-BW pEtsEke, beard

PCC t'eč ${ }^{\text {hey }}$, fur (on any animal)
PR t'ečhe', fur, animal hair
and the following irregular:
PCC si•nč'ekey, eyebrow (forehead fur); PK sinčhikay, eyebrow
PR si•nč'ikiy, eyebrow
PA-U sinč'ikay, eyebrows
SP-A sinkeke, eyebrow; G sincheke, eyebrow
Partially not fronted to make a semantic distinction?

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*č'en-a', defecate
*č'en-i, feces
W č'ina', to defecate; č'eni(`)s, feces outside of body, dung; č'ina·s, feces inside
    of body; hard, dry feces
N-B t·cen\overline{1}, excrement, dung (and irregular N-BW kEn-, kEda-, defecate)
PK, T t'en-, defecate; K t'eni', feces; T t'ena', to defecate; and irregular T senimen,
    dung beetle (Whistler 1976e from Merriam) (in analogy with *k
    stink bug)
SP-V ena`', defecate; eni, feces
*č'ep-, bad
*č'ep-?a, be bad
W č'ep, bad, old; č'epet, old (and sickly or pitiful; person, animal, object);
    č'epkala, to be bad; č'ipa, to tell dirty jokes
N-C ch!ě-pa, bad; BW c'epa', be bad, mean
PCC, K, T t'ep?a, stingy
*č'ereCč'ereC ? *č'iriCč'iriC ?, small bird sp.
W č'erepč'erep, a ground runner, a small striped bird (cf. č'iri ka, to be slim, M
    che'-pis, striped)
PCC t'irimt'irim, bushtit; C, K, T tirimtirim, common bushtit (Whistler 1976e
    from Merriam for K and T, and Bright 1951-2 for C); CC č'enepč'enep, bird
    sp., little, grayish bird, stays in brush and trees, probably a bushtit
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*č'er-i, sand; use sand; cf. *č'ir-i, distribute liquid substance
W č'eri, sand, grain of sand; cf. č'er-, itch, tickle
NT-M chā' ${ }^{-}$-ah, acorn leach
PCC, K t'eri/u-, to leach, soak acorns; R-B t'eri, to leach
*č'e(•)w, talk; cf. *čhiy-a, call someone
*č'e(•)we-s, talk, speech (n.)
W č'e•wa, to make a speech, preach; dawč'e•wis, speech
N-K tcewe, speaker, chief
PCC, K t'ew, talk; t'e(•)we, language; CC t'ewes, language, talk (n.)
PR t'ewe, speak, language; t'e $\cdot$ ''ewe, to talk
SP-V tewe, speak
*č'i-, red-shafted yellowhammer (flicker)
W č'ile, yellowhammer; č'ilew, bluejay; sapsucker; yellowhammer
N-C chi-yo, yellowhammer; BW c'iol, c'iyol, yellowhammer; M che'-o', flicker (Colaptes)
Irregular due to analogy with "old man":
PR č'iya $(\cdot) \mathrm{k}$, red-shafted flicker ("old man")
SP č'iyak, red-tailed hawk ("old man") (Whistler 1976e)
*č'idik, heart, core; cf. *č'it-, press tight; *č'idok, narrow-waisted
W č'idik, core of fruit
N-PS č'idik, heart; NC chi-dík, heart, spirit (soul)
PCC, K t'idi•t, meat of any nut, kernel of any nut; K t'idit, eyeball; T t'idi•č, meat (of any nut)
*č'idok, narrow-waisted; cf. *č'it-, press tight; *č'idik, heart, core (narrowing center?)
W č'idok, girdled, narrow around center (< *č'E-, bind, tie, tight, bound, strands) (cf. č'ed-, short springing movement of the eyebrows, and listings under PW *č'idik, heart, core; č'itok, kingfisher; a small variety of suckerfish; M chăt', tendon, sinew)
NT-M che-dik, trinket basket (slightly choke-mouth, of Cladium root); C chí-dik, basket (generic); chi'-dahk, dragonfly
PCC pu•suduk, PK pu•sidik, dragonfly (irregular)
SP-M poo'-so-look, dragonfly
*č'i•k, rough skin; cf. *č'ekey, hair
W č'i ka , to have a rash, be pimply, get pimples
PCC $\quad \mathrm{t}$ ' $\mathrm{i} \cdot \mathrm{k}$, scale (fish or lizard); K t'ik, scales (fish or reptile)
PCC, K t'i•t, scab, sore
PR-B t'i t , sore ( n .)
*č'il, black bear; cf. *č'il, black; *sil, black
W č'il (g), č'ił (p), brown bear
NG-M chēl, black bear; B $\mathrm{t} \cdot \mathrm{ciL}$, black bear
PCC silay, (black) bear, bear of any kind, caterpillar; K t'ilo ${ }^{2}$ ki silay, silti silay, black bear; silay, bear of any kind; t'ilo•ki, black bear ("that's his right name")
PR-B selay, bear
SP sili?a-yapoti, black bear (Whistler 1976e); A silia gutia, man [sili?a wi•ta, lit. black man]
cf. PK silti-hakam, black ant sp.; silti-tomo, hairy caterpillar; silaysilaymen, hairy caterpillar; Alsea su:łn, Siuslaw swał, Hanis Coos swał, grizzly (Golla 1997: 165)
*č'il, black; cf. *č'il, black bear; č čo $\cdot 1$, burn; *sil, black
W sas č'ile', to be the dark of the moon; cf. čulu•la, to be black; M 'chelth, black (representing [čuł] ?); N-J chu lu la, black
PK t'ilo ki, dark; t'iloki, black
PR t'ilo ki, black; U t'ilo•kuro be, it's dark
SP-M ted-dok', dark
cf. PMie *kulu-, black; PM *sil, black, Mn kylym, black, dark (weather, etc.); Ceb
širke•-wis, šilke(•)-wis, black; Csf Shol co te, black (Callaghan 2001: 327)
*č'im, close eyes (*č'il, black $+{ }^{* *}$-m, causative ?)
W č'ime qa, to have one's eyes closed, close one's eyes, be asleep ( $<$ *č'imba $\cdot \mathrm{q}$ ?)
N-M chim-me'-kit, blind
PK t'i-mbakta, blinking, winking
PR-B t'emba•ko, to close one's eyes
*č'ini•q, vine sp.; cf. *č'en-a , defecate
W no pun č'enis, a kind of vine which grows flat on the ground, high in the hills and is used to smoke oneself when one has lost one's luck; also called "wild deer sage"; lit. "deer's dung" (prob. a folk-etymology)
N-G tciniêk, tcinêk, ground vine sp. with many seeds
PCC t'ini $k$, Calandrinia ciliata, red maids
PK t'ini $\cdot \mathrm{k}$, plant sp. (gather its leaves into a big pile, then beat the pile to gather seeds, a lot growing down by the river, grow into wide low plant, black seeds, purple flowers; t'ini $\cdot \mathrm{k}$, bush (about 1 ft . tall), gather the black seeds, dry them, then beat them, purple flowers, look sort of like tumbleweeds, probably Calif. buckwheat brush (Erigonum fasciculatum)
*č'iq, sift
W č'iqča, to be put through a sieve, cf. č'iq, disappear, č'iq, have one's eyes put out, lose an eye; č'i.qa, to wring out, squeeze, wash clothes
PK t'iki, sifted, to sift
*č'ir-i, distribute liquid substance; cf. *č'er-i, sand; use sand
W č'ire', defecate (loosely); č'iri, loose feces (cf. č'ey-, lengthen, stretch, separate)
PCC t'irlaki, to sprinkle one time, t'irla•ki, splatter, spill out; t'irat'ira, sprinkle; t'idi, to sprinkle
PR t'idi, t'idu, sprinkle, squirt
*č'it, press tight; cf. *č’idik, heart, core *č'idok, narrow-waisted; *č'e ek, rope; *tir-i, belt
W č'it-, press, tight, squeeze, concentrate; č'ita•, to press all liquid out; č'ite', to squeeze out of; č'itama, to tie something up, bind, wrap tightly
N-BW cit-, push; J chi ta mus, bow

PCC t'iči $\cdot \mathrm{mu}$, to pinch
cf. Klamath č'i, act upon liquid in a container (Barker 1963: 87)
*č'iw, hull
W č'Ew-, č'iwa', to open hulls of plural objects, like peas; to take shell off one nut with hard shell, to pull off; to press pea pods apart, to take acorn out of shell, to hull
PH-U č'iwi•lma, dogwood top frame for pounding acorns (irregular)
*č'iwil, Western fence lizard
W č'iwil, fence lizard
NGT-M che-wil ${ }^{\text {ch }}$, scaly lizard (Scelopterus)
PCC t'iwi $\cdot 1$, t'iwil, rattlesnake; K t'iwil, t 'ewil, Western rattlesnake; t 'ewi•lma, rattlesnake; čhe•n t'iwi $\cdot 1$, "down snake," kingsnake
PR t'iwil, rattlesnake
SP-M te'-wil, rattlesnake
Taboo avoidance may have resulted in P using the term for Western fence lizard to refer to rattlesnakes. Cf. W t'aw, coiled, wound up, wrapped up, round, cycled; t'awa, to be coiled (up high), as of a snake or rope; t'awila, to be round, coiled, go around
*č'ob, skin peels off ; cf. *sob-č-u, pull off
*č'ub, peel off
W č'obo•ya, face to peel in many places; č'op(i), č'o•p, scalp, skin, hide, shell, hull; č'upča, č'upa, to strip or peel bark; č'upal, to peel off (intr.)
PCC t'oba', to blister, to take skin off, pants off, etc. when burned by hot water; B t'ub, to peel
PR-B t'ub, to peel
*č'ok-i/u, chew
W č'Ok-, č'uka•, to chew; č'oki, nominal stem; č'oku, imperative stem
N-BW cahku-, chew
PK č'oki/u, chew
PR č'ok ${ }^{\text {h }} \mathbf{i} / \mathbf{u}$, chew
*č'oł- ?, *č'oh- ?, flow; cf. *qul, flame ?
W č'ohi, flow (č'Oh-)
N-M num $\bar{a}-$-oo-ken chaw-he, upstream
PK č'ołi/u-, flow, water to run
*č'on, kick; cf. *čh ${ }^{\text {h }}$ ono, dance
W č'On-, č'una, to kick
N-BW c'ona-, kick
PCC, K $\quad t^{\text {h }}$ onpa, kick; cf. K č'uninyali, dam (beaver or manmade), "kick the water back"
*č'oq, dry and stiff; cf. *čh ${ }^{\text {h }} \cdot \mathrm{q}$, tree
W č'Oq-, dead, dry, stiff (said of people and larger plants), rigor mortis, be numb, have cramps, be paralyzed; č'oqmi, a dead tree; cf. k'ok, stick; č'uqel, liquid to stop running and dry up; cf. čiqel, to be dried out, drained of water (čiqča, to drink up)
PCC, K, R t'ok, firewood; CC t'ok ${ }^{\mathrm{h}} \mathrm{i} \cdot 1$, to gather firewood
SP-M ok' (awk'), firewood; ok', funeral pyre
cf. PT-U me-m č'okčis, water dries
cf. the following irregular P forms:
PK č ${ }^{\text {h }}$ očh?aro, cramped
PR čočhe?aro, he has cramps
*č'ow Western bluebird?
W-M chaw, Brewer blackbird
N-M chō ${ }^{\text {d }}$ ?, bluebird (Sialia); chow', tsow', thrasher (Toxostoma)
PCC č'owkoč'owko, bluebird; č'okoč'oko, Western bluebird; T, C č'o•ka, Western bluebird; CC c'owk ${ }^{\mathrm{h}}$, Western bluebird
PR č'oki•s ?, Western bluebird (Whistler 1976e from Merriam)
SP-M cho'-kah, chŏw'-kah, bluebird
cf. P (K, T, C, CC) k'owiłto, Calif. thrasher; W k’Ow-, peck; Klamath (Barker 1963:
515) k'aW', to peck; (p. 483) gawi, bird sp.; (p. 506) gaW', to knock; Coos k!a"-, to
peck; $k$ ! $a^{\prime}$ wat, he pecks at it (Frachtenberg 1913: 20, 205)
*č'ubi, nit
W č'ubi, a nit on the head (unhatched louse)
PH t'ubi, nit
*č'ube, mouse, rat (271.)
W č'udeh, white-footed mouse, fieldmouse, rat; cf. č'u( $\cdot)$ pč'u( $\cdot$ )bukus, striped chipmunk; P t'Ob-, pointed, pierce with sting, suck; č'opči, the skin hide of bird, mole, small rodent, etc. < č'Op, peel, skin, flay
NT-M choo-dě', GT-M choo-be-lahk, white-footed mouse (Peromyscus)
PCC, K t'ubes, rat, woodrat, any rat
PR t'ubes, rat, mouse
SP-M too'-běh, round-tail woodrat
The $\mathrm{d} / \mathrm{b}$ correspondence is irregular. The W and NT forms may be due to folketymology on the basis of a form such as W č'u•da, to sit on the haunches (see PW *q ${ }^{\text {h }} u d$ )
*č'uduk, woodpecker sp., red-breasted sapsucker ?; cf. *čh uday, woodpecker sp.
W č'uduk, yellow-bellied sapsucker, small woodpecker
NT-M choo-dook, red-breasted sapsucker (Sphyrapicus ruber)
N-C chu-dúk, red-headed woodpecker sp.
PR t'udutt ${ }^{\text {h }}$, red-breasted sapsucker, woodpecker (Nuttall's ?, hairy ?)
PK-M too-dit'too-dit', hairy woodpecker
*č'u•l-i/u, pour, spill
W č'u•l-, pour, č'u•l-i/u, nominal and imperative stems; č'ul-, spill, dump
PK t'u•li/u-, pour
PR t'u $\cdot 1 \mathrm{l} / \mathrm{u}-$, spill, pour
cf. PH-U tu•fta, leak, drip; Alsea k'lah-, go out, emerge; k'lah-ayu:, mouth of a river (Golla 1997: 162)
*č'ulaq, bush sp.
W č'ula $\cdot q$, blue deer brush, blue flowering deer brush, chaparral, ceanothus PCC, C t'olak, steeple bush (Angelica sp.?)
cf. Alsea su:lha?k, grass (Golla 1997:165)
*č'u•n-u, urine, urinate
W č'u•n, to urinate; č'u•nus, urine
N-BP č'u•na, urine
PK t'unu, to urinate; H-B t'u nu, urine
SP-M 'too-no, urine
*č'up, *č'u•p, sharp point, bone awl; to sprout; cf. *tep-i/u, emerge, sprout, cross (meet)
W č'u•p, sharp point, awl, needle; č'u•ba, to be sharp-pointed; č'upe', to sprout, plants to grow, to teethe; č'upč'upa, to be thorny
N-K bu'li-chup, Bally Choop, peak sharp (name of a mountain)
PCC, K t'up, (bone) awl, point on end of pole for spearing, made of hard bone; t'up, thorns, stickers (spines of porcupine, plants, etc.); t'upo•, to sharpen a point
PT-U t'upti, something is growing
PR t'u•p, t'up, bone awl; t'upuk, sharp, pointed
cf. PMy *c'ub', with reflexes including: long, narrow, like a narrow channel, pointed, sharp; *c'up, with reflexes including: point-first, to bore with pointed things, sharp-pointed, sharp; pricked, long, pointed, to stab with pointed object; Central Sierra Miwok čup:a-, to point a stick with axe; Sierra Popoluca cu:pa, sharp; Totonac (Papantla) č'upa, to nail it in something; Classical Nahuatl tzopīnīa, to prick, jab, puncture; Pipil tsupina, to prick; Choctaw chufak, a nail, a spike, an awl; Tarahumara chu-pá, point; Quechua tupuli, the needle; cf. also PMy *c'ub', to kiss, to suck; Maidu c'obot/c'opot, to kiss; Northern Yokuts c'o:po:, to kiss; Zuni c?upłi, to kiss; Tunica čúhpa, to kiss, caress, suck; Zoque (Copainala dialect) čupsu, suck; Terraba šup, suck; Quechua čupana, suck (all from Brown 1990: 22, who observes that some or all of the last three may be borrowed from Spanish chupar, to suck)

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*č'up-u, wade
W č'upe, č'upu-, to wade, ford a river
PCC, R thupu-, wade
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*č'ur ?, calf
W č'uhčir, calf of leg (dissimilation r>h ?; see also PW *čhi•r; cf. č'Oy-, sprawl); M choo'-e-tam'-mus, winter moccasins for men
N-C chú-i, leg; cf. M choo'-pik, lower arm
PK t'u•bu, calf, shinbone
PR t'u•bu, shin; folk-etymology with t'up, sharp point? see *č'up
*č'ur-, *č'uru(C)č'uruC, cricket
W č'uruč'urut, č'u•rč'urut, field cricket (Gryllus); cf. č'or-, backbone, fin; č'oro•ya, for a whole bunch of salmon to be with their backbone fins sticking out, for lots of things to be sticking up like a fish fin
PK ture•s, big brown grasshopper; K, T tortor, cricket
PR č'urumč'urum, cricket (irregular)
*č'us, wood? pestle?
W č'u•s, wood, stick, club, log
PK t'usa, pounding rock, pestle (same as walking stick); PT-U, PA-U, t'usa, pestle
cf. PMis *syṣ•-, wood (Callaghan 2001: 324)
*č'us, fishbone
W č'uses, whitefish; a special white fish, very bony
PR-U t'us, fish bone
*č'ut, vulva
W č'u•t, vulva; č'ute ', to have a fat vulva
PK t'ut, cunt
*č'uy-u, suck
W xun-č'uyu•qa, to suck something out
PCC, K, T, R t'uyuluk, hummingbird; CC also t'oyuluk
cf. PUA * cun, suck
*č'uC-, straight; cf. *č'ur ?, calf
W tu-č'uye•qa, to stretch out, straighten one's legs (cf. č'uy, eel)
PK t'ur-, make straight; t'ul-, straight (not crooked)
PR t'u•ru-, be straight, straighten, aim

[^0]*-da, relational nominal suffix (512.31); cf. *-da, first person subject
W -da, intensifier ("very, from"); suffix on adverbs of time (hima•da, a little while ago; le•nda, yesterday)
PCC, R -da, with (na•da, with me; mi•da, with you); PA-U seritada loytada hara•bus, that's a boy and a girl [boy-with girl-with going]
PC -da, comitative case (Whistler 1977)
SP-G alei mi da, go with [go-I'll you with]
cf. PMy * ${ }^{\text {y }}$ a , in, on, at, to (preposition) (Brown 1990: 58)
*dal, flat; cf. *daw, front; *dala, leaf
W $\quad-\mathrm{da}(\cdot) 1$, location, in the direction of, to; low, lowland at the foot of anything $<$ -da (see *-da) + ?el (see *?el)
Perhaps originally two distinct morphemes: $\mathrm{da}(\cdot) 1<{ }^{*}$-da $+*$ ?el, in the direction of; and *dal, lowland (flat); cf. sal-, dal, leaves; delek, deleq, plate
PCC dalak, thin, flat; dala•to, (flatten out), flat (only, i.e., not thin) of a surface cf. PR dabak, thin
*dala, leaf; cf. *dal, flat
W dalas, leaf or leaves in any state: green or dry; twigs with green leaves; flower petals
N-M dal'-lah, dal-lah', leaf
PCC, K dala , leaf, leaves
PR-B dali, leaf
*dam, bet; cf. *dal, flat
W dama', bet, wager, usually by putting something down (possibly < dam, put in indicated direction); cf. tam-, bet
N-G tami, big time
PCC, K, R dam, gambling bone
*daq, acorn meal
N-M dahk', acorn meal before or after leaching (probably [daq])
PCC, K, R dak, acorn flour, acorn meal
cf. W dayi, salmon flour; dampaq, soak acorn meal < dam, pour, dump + paq, benefactive
*daq, burn
*daq-č ${ }^{\text {h }} \mathrm{i} / \mathrm{u}$, with mediopassive
W daqal, be burned, be scorched; daqča, to be hot; cf. t'aqiqa, to be in pain; t'aqiqma', to hurt, be painful (as burn or open wound)
N-BW dah-, sweat
PK daka•ro, burning; pi dakčuro, it's burnt up; PCC, R dikt ${ }^{\text {hi}} 1 / \mathrm{u}-$, burn
cf. Alsea tq'wli:k'-, to be warm; tkali:łc'-, to burn, build a fire; Siuslaw tqał-, warm (Golla 1997: 166)
*daw, feast; cf. *dal, flat; *daw, front
W daw, fat meat (as from the ribs of deer); dawina, to dish out food, put food before people, give to eat to a stranger, to serve food and be hospitable; cf. daw, be or make round and flat; front, in front
PK, R dawo', dinner, feast
*daw, front; cf. *dal, flat; *daw, feast
*?ol-daw, be face up
W daw, be or make round and flat; front, in front; ?ol-dawa, be face up; cf. taw, flat, lay flat on; taw, spread, blanket, saddle, covering, underwear, showshoes
N-G dao'têdê, earrings; dauheimê, dance leader; M daw-tak-le, sole; dautede, bivalve shell, perhaps small clams (came from a distance)
PK daw, in front; it's outside; dawpa, front side; puybe daw wilak, Sacramento Valley (east out valley); CC, K 7ol-da•wi, turned up, face up
*dehe•la ? *damha•l- ? bat; cf. *dih, spread open
W dehela, bat, dark, gray color (dehela• ?); tehe•las (g), tehelah (p), bat; cf. $\mathrm{de} \cdot \mathrm{h}$, be in a position with wings outstretched, de $\cdot \mathrm{ha}$, sailing (in air), gliding with outstretched wings; dEh, two halves spread wide; dEk-, climb, step; te-h-, sail, float, spread
N-C dé-he-la, bat (sailing); M dā-hāa-laht, barn swallow (Hirundo), cliff swallow (Petrochelidon)
PR damha•lay, damha•le, bat
W and N may have folk-etymologized
*dek, climb, step; cf. *dih, spread open; *t'eqel, palm
*dek-m, climb something (with *-m, inanimate comitative)
W dEk-, dika, climb, step; dekma ; to cause to climb, step up; dekma, to climb while carrying something (climb with), to step up on
N-G dehke, man who climbs trees to get nuts; T-M dek'-nah pōm, footprint; BW dEkna-, walk
PCC, R deč-, det-, to climb; H hale detmu, I'm going (in order to) climb it; cf. PR č'anda $\cdot \mathrm{k}$-, step over
cf. Alsea ti:k-, rise to the surface, (person) gets up; Hanis Coos tlk-, stand up (Golla 1997: 165)
*-di, let, hortative (424.2); e.g., see *be--di under *bey; cf. *-da, first person subject
W -di, hortative, may, let (e.g., hardi, may he go, let him go)
PCC, K, R -di, let him, let them
*dibił, roll, turn; cf. *dir-, roll; *dil-i, fall; *t'er ?, tend in indicated direction; *t'ir, twist; *tep, emerge
W dibiłta, to turn (around, intr.); cf. se-depča, to turn inside out; depča, to gut tipi $\cdot$ ła, to turn over, turn upside down; tipiłta, to turn over (tr.), turn around and go in the opposite direction; biłel, to be turned (as a wrist)

PK dibilharo, rolling around (many times); dibiltoro, roll over once; CC dibilho, to roll around
PR dibilta, dibiłtoro, one year
*dih, spread open; cf. *dehe•la ?, bat; *dek, climb
W dEh-, two halves spread wide; de•ha, sailing (in air), gliding with outstretched wings; se-dihalar wint ${ }^{h} u$ biyabe nom ?ukin, the people (corpses) lie there in the west, split apart at the pelvis; cf. dEk-, climb, step
PCC di•hi, cave, hole, animal holes, burrows; K also vagina; K dihi, home
PR di•hi, hole, home, village
SP-M de'-he, Sonoma town (place) (any village)
*dih ?, *dir ?, rub; cf. *dir, roll
W dihe $\cdot$, to rub, massage; cf. di•t, wipe; dit, scrape
N-S tiiha, rub
PCC $\operatorname{dirt}^{h} u / i-$, rub (roll on ?)
*dil-i, fall; cf. *t'al-a, fall
W dile, to fall; xan-dilma', to lose one's relatives ("they're dropping off on one")
N-BW dila-, fall, drop; dilma-, lose
PCC dili-, lose (in game only ?)
PR dili, to lose (a game)
*dir, *dił, roll; cf. *dibił, roll, turn; *t'al-a, fall; *t'ir, twist; *dih ?, rub; *t'er-i, make round
W dir-, roll, wrap
N-B dīLa, string
PK diła•, to roll or twist twine (on knee); CC to roll up string (on knee); diła•, bowstring
PR di•r-, dir-, dił-, roll up (string)
If N is borrowed from P , only * dir may be reconstructible
*dok, neck ?; cf. *dol, throat; *holhol, throat; *dol, put long object around; *doqo, arrow, flint, obsidian
W doki, neck, throat
PT do•kuro, stick head out
Irregular. Cf. W toq, to be like a post, stand up anything long; toqi•qi, backbone, when on living body or skeletal; toqi•qit, spine
cf. Alsea tkwu:łn- (or tuku:łn-), to stick (e.g., arrows) into something (Golla 1997: 165)
*dol ?, put long object around; cf. *dok, neck ?; *dol, throat; *holhol, throat
W dOl-, dula', to tie, wrap string

N-S dolaa, tie
PT do•ruma, put necklace on
*dol, throat; cf. *holhol, throat; *holoq, hole; *qo(•)l, mouth; *dok, neck ?
N-W dol, neck
P doldol, throat
*dop-u, cut notches; cf. *doqo, arrow
W dOp-, dupa $\cdot$, to cut, slice, saw
N-G dopna, tattooing
PCC dobu/i-, cut a row of notches in
cf. PMy *tob', *top', with reflexes including: to break, to dislocate a joint, saw a log, cut in half; Lake Miwok túupa-, to break horizontally, cut, be broken; Wappo t'óphi?, cut with scissors, prune; Zoque (Francisco Leon) topsu, it is cut all around; Tonkawa topo, to cut (it) off, to cut (it) to bits; Natchez top'hukus, to cut in two (all from Brown 1990: 50)
*doq-, happy
N-BW duuku-, be happy (unless $k$ represents [q], this may be a loan from P or vice versa]
PH-B ?odo $\mathrm{ki} \cdot$, to be happy
*doqo, arrow, flint, knife, obsidian; cf. *dok, neck ?, *dop-u, cut notches
W doqos, obsidian, arrow
N-B doko, arrow
PCC, K doko , point, stone knife, any knife, spearhead, arrowhead, flint, obsidian
PT-U doko•, knife, obsidian, flint; PA-U, doko, knife, flint
cf. Lowland Mayan *to:k'; PMy *toq', *tyoq', with reflexes including: flint, to let blood, flint stone, fire rock; Nisenan tok, pointed, sharp (Brown 1990: 37-38)
*doy-i/u, give
W dOy-, duya , doy-i/u, to give
N-S doya, give; G do, imp.; B dūr'-yu-pu-di, gift dance
PCC, K, R doyi/u-, to give
PR doyu, to give, you give!
doyi, to give
mile doyu $\cdot \mathrm{t}^{\mathrm{h}} \mathrm{i}$, you folks give!
pi mis pe•s doyum, what did she give you?
PCC ?ew lo•yta nat k'eni doyusa, that woman gave me a basket
PK mit č ${ }^{\text {h }} \mathbf{u}$ doyurro, I loan/gave it to you pi nat doyusa, he gave it back to me
PT-U doyi, gift, give
PT-B doyu, to give
*doy-u, give (imp.)
W doyu-, imperative stem; doyu $\cdot \mathrm{t}$, give it to me!
PH-U doyu?, give (imp.)
PR (mi) doyu, you give!
doyu nat/?ut, give it to me/her!
*doy-u-le, going to give
W doyule, will give
PR ?es mis doyule, I'll give you this
*doyu-na', give (to) oneself
W doyuna', to give oneself, give to oneself, tame (animals), beg
PH-U doyuna•nta, he's giving up, giving self away
*du-?, tu- ?, carry
W tOw-, tuwa , to hold, carry in hand or arms
PCC, K duh-, du--, pack, carry on back
PR duh-, pack on back
cf. PUA *tu, carry pl. objects
*dum, dip; cf. *qum, dip
W dumča, to bathe (intr.), take a bath
PT-U du-mus, dip in water (people or things)
*dum, angelica
W du( $\cdot$ )m, edible greens sp., ginseng, Angelica
PK holdom, angelica, angelica root; T, CC holdom, angelica root
PR holdum, dum, Angelica root; holdum, Angelica root, poisonous var. ?; cf. Wintu xalah, wild onion or potato
*duq, promise ? beg?
W duqa , to promise
PR du•ki/u, beg
PA-U duki, borrow
cf. W thuqa, trade, swap, borrow; perhaps originally two separate roots *duq and *thuq, which have merged in P.
*duq-7a, bad
W dOq-, duqa•, be good for nothing, no good, miserable, a tease, funny or queer; doqit, nominal form
PCC duk'a, bad (<*duk?a ?) (feel bad, taste bad, be a bad hunter, smell bad, etc.)
PT-U duk'ama, bad

## e

*-e, *-e•, realis stem-deriving suffix (423.24)
See: *łel-e, weave; łup-e, drink/eat acorn mush with fingers; *ber-e, be hungry, starve (under *per-i/u); *p’ił-e, choose, *qer-e', belch; *thul-e, swim
*-e•, let's (424.4)
W hare ', let's go
SP-M har'-ra, go away
*-e-1, *-el, locative, toward, in (horizontally ?) (512.32); cf. *?el, in horizontally
W -e $\cdot 1$, toward, in (kele $\cdot 1$, far; wayti nome $\cdot 1$, up the hill to the northwest; ?ole $\cdot 1$, up, above)
PCC nome $\cdot 1$, to the west; sanome $\cdot 1$, sundown
SP-M no-mel'-te, west
wi-yel'-te, north

## h

*-h, *-s, intensive verb-derivational suffixes ? (423.31)
W -h, stative intransitive intensive denominal verb-derivational suffix, "to be..., to be like..."
-s, intensive derivational verb suffix
PCC -ho (-so, -o), verbalizer
-ho (-to, -ko), plurality and temporality "distributives" (Whistler 1981:88 states that "*-0./-o would presumably be historically related to the auxiliary base -ho, which functions, considerably less productively than 7 a , as a theme-derivational suffix")
*hak-i, up-and-down movement
W hak-, move like a lizard, up and down, squirm, energetic movements; hakiča, be industrious, diligent; cf. *ha, movement
PCC, K hačhimen, daddy-long-legs; CC hači, sieve; hačiho, to winnow, to sieve (with up and down motion)
PR wahakčemen, daddy-long-legs
SP-A jake, molars
*hal, think
*halhal, repetitive or prolonged thinking
N-S halaa, think; H halhal, think about it, PS ha•l-, think
PCC, K hali/u-, think; CC halhala, think
PR hali/u-, think; B halaknan, to remember
*hal-a, whisper
W Tel-halapta, to whisper something to someone; cf. hala, to whistle
PCC halaka, to whisper
*ham ?, sam ?, black oak acorn
N-G samtci iuw, black oak acorn
PR hamsu, Q. kelloggii acorn
*handop-, kingsnake
W handokmet, ha•ndopmet, kingsnake
NGT-M hahn'-do'-pit, king or milk snake (Ophibolus boyli)
PR hantapil, kingsnake; B handapił, kingsnake
*hap-a, dig ? pick up ?
W hapa; to dig with a tool, dig deep holes; cf. napa, to gather or pick acorns
N-S hapa, dig; cf. N-BW aa-, gather
PK, R hap-, hapa-, gather, pick up (off the ground)
PCC, K, R kapi/u-, dig
*haqa, ankle
W haqam, ankle, elbow; *haq, jointed (as of elbow or ankle); haqa, elbow; haqam, elbows (dual)
PR haka, ankle
cf. Alsea haqa:n-t'x̣ws, knee ? (< 'ankle-top') (Golla 1997: 161)
*ha $\mathrm{q}-\mathrm{a}$, suspect; fear a loss
W ha•q-, suspect, have suspicion, be afraid of theft or loss; ha $\cdot q$ as biyak, they always suspect someone
PCC, $\mathrm{R} \quad \mathrm{ha} \cdot \mathrm{ka}$, jealous
*har-a', to go (verb), andative auxiliary "going to" (421.3)
W hara , to go, move away from speaker; progressive auxiliary
PK hara•, going mi hara t 'isay, are you gonna go?
pi nop hara bus, that deer is gone
PCC winis čh $\mathbf{u}$ čhaket winma hara $\cdot m$, I see a lot of people going
hima ?aro nay harałła pile ?ele• besa, whenever I go, there's nobody there
hara $t$ ' is ču, I'm gonna take off
pi yeme•na pi k'ayu•ro haras, he's walking along that trail
PR hara, going
$\check{c h}^{\text {h }} \mathbf{u}$ harat' i , I'm going
?elhara, to sink
SP-M choo' har-rah'-bo-te, I'm going, I'm going to go
*har, imperative stem; go!
W har, go!, go (imperative stem)
PK, PR har, go!
PCC har, to go
SP-M hahr", go!

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*hara-s, (a) going (noun)
W haras, nominal stem (going)
PCC haras, going (unmarked tense, declarative mode)
    haras pi pa \(\cdot \mathrm{l}\), he's going now
    so kunana ču haras, I'm gonna go wash myself
    \(\mathrm{t}^{\mathrm{h}} \mathrm{i} \cdot \mathrm{rma}\) ch \(^{\mathrm{h}} \mathrm{u}\) łewisi haras, I'm going (in order) to gig fish
    k'i.r puytuka haras, clouds are moving east
    yelharas pi \(7 u \cdot t\), following somebody
PR pi k'ana haras, he went to sleep
    ?ete•ta wi•ta haras, one man left
PK hara•s, gone (cf. -sa in: le•nčhul čh u harasa, yesterday I went)
*ha-le, I'll go, we'll go
W hale, let's all go
PK čhu hale, I'm going
PCC hale, let me go (one)
    ?ow hale, ok, I'll go (I'll get out of the way)
PR pučelta hale, I'm going to the camp
    hale nepel, we (two) are going
    hale, I'll go
PT-U hale yolo, I'm going in a little while
SP-A jalei tummi, I will go piss
*har-m-, take/bring something inanimate
W harma, to go along doing something; take something along
PCC harme, to take (inanimate)
    po hiłi- harmeta', who took my beads?
PK pi pe• harmebus, he's taking something
    harme, take it!
    harmero, bringing
PT-U kalłeya harmesa pi, he took it out (garbage, lots of things)
PR ?es čaket harme, you take everything, take all of it!
*harhar-a', many go
W harhara , many to go
PCC p'ata• harharas, sparks flying
*har-e', let's go
W hare', let's go
SP-M har'-rā, go away
W ha•sma, yawn, to keep on yawning; ha•smena•, to yawn once, sigh
PCC ha•sme, to yawn
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*ha'sme, yawn
*haw-a $\cdot 1$, wrap around; cf. *naw, robe
W haw-, wrap around, (a)round, coil, lasso, coil rope; e.g., xun-hawa•luna, to coil (of a snake before it strikes); doki $\cdot \mathrm{n}$ hawna $\cdot \mathrm{s}$, something coiled around the neck; se-hawa, to uncoil; hawi•la, to go around many times; cf. hay, revolve
PK hawa•l, rabbit skin
*ha.w, fox
W ha•w, fox
N-BW haw, fox
PCC, K, T, R ha•w, fox
SP-M haw'-oo, how'-o, gray fox
cf. Mim Ah-wáh-ke, gray fox (from Merriam), PYnim *?aw'čha- fox (Callaghan 2001: 325); Palewyami Ow'-chah, fox (Berman 2002, from Merriam)
*he, *hi, demonstrative-interrogative root (610.); cf. *hen, arrive; *ho-, past demonstrative; *qa, referential
W hE-, demonstrative-interrogative root (occurs as: hek-, hen-, hest-, he•s-, hi, hid-, him-, his-, hiw-); cf. *hE, stand (in: hEk, stand, hEy, stand bending)
N-BW hesem, how much? how many?; hiya, another
PR he•ła, where; he•ti, where from; he tuka, where to hičhahta, few; how many
PCC he•ti, from someplace he•tuka harmu?a ka t ${ }^{\text {hayču, where's my grandson, I wonder where he is }}$ he•ła ka harmu?a pi wi•ta, I wonder where that man is
PK he•tipa he•ti he•ti, where are you? where are you? he toka mi harasay, where are you going?
PT-B he•ła, where
SP-M hárch ${ }^{\text {rchah, where }}$
cf. PM *hesi, what, something, any; PYn *han'-ta, what?; PMi *hin-ti, what, something; PU *hin-ṭi, what? (Callaghan 2001: 329)
*heke, where
W hek-, who, which one; heke, which (indicative stem as though a verb); where, to where, anywhere; hekem, whom, anyone; heker, by whom, by someone
N heke hara, where you going? ("Glenn County" Nomlaki form given to Whistler by PCC speaker Harry Lorenzo)
PCC hekuła, when, where
PR hekeła, where, anywhere
*heket, which specific one
W heket, who, someone, anyone, any, someone unknown
PR-U heketta, which one?
*hel, bank of rock or soil; cf. *hul, cave in; *q'ilaq, dirt
W hEl-, hilal, rocks and dirt to cave in (stative); hilalas, a mountain slide of dirt, a caved-in spot; hele•ya, to cave in (cf. hik, heap, mound, push or pile something into a heap or row, rake, hoe, scrape, also cave in, fall down, from a heap, such as dirt, etc., from hEk, stand, stoop)
PCC, K heli, cliff, bank of river
*hen, arrive; cf. *he, *hi, demonstrative-interrogative root
W hEn-, hina, to arrive, come home
N-PS hena , to come; BW hen-, return
PH, R hen-, to arrive
*hene-s, arriving (nominal form)
W henes, arriving (nominal stem)
PCC po henes, somebody came
PT-U henes ču, I'm arriving
PR-U henes ču, I arrived
*hen-le, going to arrive
W henle, going to arrive; let's all stop there!
PK čh peła henle, I'm coming over sometime
*hen-m-e, bring; i.e., arrive with (with inanimate comitative)
W henma, bring; henme-, imperative stem
PCC pi henmen han ?inisa, used to come bringing it
PK he•nmero, bringing
PT-U henme, bring
PR čh ${ }^{\text {h }}$ henmes, I brought that along, I brought it back
*hen-pa ? *hen-paq ? meet (with benefactive)
W henpaq, visit, come to see
PCC henpa, to meet
$t^{\text {th}} \mathrm{o} \cdot \ddagger$ henpap'iri, [mountain] pass (mountains come together, mountains meet each other)
*-her, passive (421.5); cf. *her, help
*-here-s, nominal form
W hEr-, passive; -heres, nominal form
PCC, K -her, passive; $\mathrm{CC} \mathrm{t}^{\mathrm{h}}$ epheres pi nat, let them hit me
PR -hor, passive ?; łarohoro be•, it's already tied
cf. PCC he•r, to reach; CC, K her-, he•r-, get
*her, help; cf. *her, passive
N-BW Elhilci/u-, help
PCC, K, R hero-, help
*her-u, motion back and forth; cf. *hil, slice, cut with swinging motion
$\mathrm{W} \quad \mathrm{hEr}$, row, paddle, swim with overhead strokes; heruna, to make the characteristic swimming movements with the arms; cf. hir, fire, burn, conflagration (perhaps fire drill motion); hay, spin, twirl; hil, swing arms; sir-, copulate; yEr-, scrape, slow back and forth motion
PK heru-, saw
*hesi ? *hisi ? dance type
W hisi, Hisi dance; hise', to dance Hisi
N-K hisi tcono, type of dance (two singers in front of dancers)
PK, R hesi, Hesi dance
Since the P Hesi is unrelated to the W and N Hisi dance, the resemblance of the names may be coincidental. Alternatively, the Patwin may have applied an inherited term to a new dance.
*het, sudden escape of water; cf. * $q^{\text {h }}$ at, ${ }^{*} q^{\text {h }}$ ot ?, wet
W hEt, break through a dam, said of water (cf. hat, escape, said of water when it has been dammed); hital, water having broken through dam; hete•ya, all coming out in places
PCC hetba $\cdot \mathrm{ki} / \mathrm{u}$, the emotion one has at seeing something new or odd or startling: surprised, startled
*hil, slice, cut with swinging motion; cf. *hila•y, swing arms; *her-u, motion back and forth
W hil-, cut grass in swinging motion
PCC hele•to, to slice one (meat, etc.) (a very thin cut), to slice off; he•lko, to slice off ( pl .)
*hil-a•y, swing arms; cf. *hil, slice, cut with swinging motion
W hila•ya, standing and waving arms hila•yuna•, to spread (as straw), air to spread, spirit to spread air; cf. hil-, cut grass in swinging motion, move hands rhythmically to music (cf. hay, spin; hir, fire; sir, copulate); hila, to move arms rhythmically in a dance
PCC hela•yo, to swing the arms; helayho, arms pumping fast; hellay, scarf held by redcap dancers
PR hila•yo, to swing arms sideways (as when walking), also used for the motion of the arms of the women dancers
*hi $\cdot \mathrm{n}$, owl sp.
W hi nwah (p), hi nway (g), great horned owl
N-BW hunkut, owl
PCC hi•n, like a hawk, goes out in the field, flying low, doesn't look like an owl, smaller than Tele?ele; Whistler 1976e CC transcription of Merriam: hi•n, short-eared owl
*hinu•-, careful ? reluctant?
N-BW hinuuna-, be careful
PCC hinu•ro, reluctant; hini, "didn't want to do it"; cf. PCC hinumatu, a brave man
Possibly a borrowing between N and P
*ho(•) ?, yes
W ho', yes
N-BW ho, yes
PCC ?ow, okay, yes, alright; K also ?o', okay
PR ?o?, ?ow, yes; ?o?-, ?oh-, agree
SP-M o'-re, yes; o'-oo (or o' '), all right; A uh, yes
Widespread areal term and probably not a good set
*ho-, past demonstrative, old, already, long ago, former (620.); cf. *he, *hi, demonstrative-interrogative; *hom, alone
W ho $(\cdot) \mathrm{n}(-)$, old, already, long ago, early, formerly, before
N-M ho'-nah po'-men, long ago; BW hon'na, before; hoon, soon; when?
PCC, R hoya, long ago, formerly; CC hoya?u, already; R howel, old man
PK hoy?o, already hoyono bes sobok, old time rancheria (one of a long time ago)
PR hoya, long time ago hoyabe nok'o, old arrowhead hoyayet, long long ago, way way back
PR-B hoya, formerly
cf. Northern Sierra Miwok hoja•?a-, old ways, old times; hoj•a-, old, old-time, to go first, to go ahead (Callaghan 1987: 75, 76)
*hok, raise; *k'ok, brace
W hokelta, to jump from standing; hokepta, to jump along with short jumps; hoko ra, to trot
PR hoč̌ ${ }^{\text {h }} \mathrm{u}$, to raise (something) off the ground
*hol ? *hoyel ? roll
W-DL pałi holholma $n$, at Pounded-rolls-down, myth. placename
PR hoyeloho, it's rolling (inanimate and animate); hoyełto, to move a little sideways, to shove sideways; hoyelaho, rolling, tumbling (intr.)
cf. W xun-xudurta, (head) to roll to house (myth.); kisil(a), roll; se-x̣osuna, roll on ground; kuyurta, roll; xuta', slide on behind
cf. PUA *ol, ball
*holol, sunshine; cf. *qul, flame ?
W holol, sun to shine, sunshine; W-M hol'-lo-lus, sunshine
N-H holol, daytime; M po'-hŏl-lŏl', today
PK holol, pretty hot
*holol-č'V•r/d-, cicada
W holol č'e rus, sunshine rattler, cicada, summer locust bug
N-M ho-lōl-tsah'-dit, cicada
PK holo(•)l č'a•dit, cicada, "hot bug" (may be borrowed from N , in which case this is not a good set)
*holhol, throat; cf. *dol, throat; *holoq, hole; *qo(•)1, mouth; *dok, neck ?
W holhol, windpipe, throat, trachea (cf. holo, dark; ho•la, pipe)
SP-M hōl-hal-lah, throat
*holoq, hole; cf. *holhol, throat; *qo(•)l, mouth; *dol, throat; *dok, neck?
W holoq, hole
N-BW holoq, hole; M ho-lo'-men, grave in the ground
PCC holi, hole; holu, to make a hole; PK holok, vagina
PR holok, any hole, den of fox, skunk, badger, etc.
cf. PMy *xol, *ho:1, *xo:1, with reflexes including: hole, door, cave; Northern Sierra Miwok hol:aw-y-y, hole, cave, burrow; ?ol:a-, hole in ground; Plains Miwok hol:aw, opening, tunnel, manhole, chuckhole; Lake Miwok hóllu, a hollow; Central Sierra Miwok 7ól:a-, to dig a hole; Tarahumara ho-ri, hole (ho, to dig); Mayo ho:roi, hole; Cayapa hura, hole, hollow (all from Brown 1990: 35)
*holow, haunt
W holowa, to scare, haunt
N-G holówîna, if in a nightmare someone is about to kill you; holowît, spirit
PCC, T holow, to haunt, ghost to spook someone
*hoł ? *heł ? loose; cf. *hil, slice, cut with swinging motion
W hołma', to loosen a tooth; se-huła, tooth to be loose
PCC hełek, loose (like a ring on the finger)
*hom, alone; cf. *ho-, past demonstrative
W -ho, -hom (g), -hon (p gen.), -hot (p), only, just, but
PCC $\quad \mathrm{t}^{\mathrm{h}}$ iho $\cdot \mathrm{m}$, all alone; K tihom, $\mathrm{t}^{\mathrm{h}}$ ihom, alone, by oneself; mi boho $\cdot \mathrm{m}$, you by yourself
PR-B tehom, alone; PT-U, tiho•m, alone
*homo - , buzzing insect sp.
W homo•wa, hamowah, bumblebee; cf. hub, swarm (of bees); Tol-tepuma k'alal humčit, spring bee (Anthophora)
PCC homotay (homo tay?), the sound of the fly? name of fly?; PH humu makay, bumblebee
PR homo tay, housefly
Widespread, sound-symbolic term; cf. Plains Miwok hom•om•a•je-, house fly (Callaghan 1984: 251); Achumawi ham'-mo-moo'-mah, blue fly (Merriam as quoted in Olmsted 1966: 148); PUA *mu, fly (insect); *mumu, *meme, bee

Whistler 1977a suggests that the P forms are borrowed from Miwok, citing PMie *homo•-, a fly.
*ho•n, *hu•n ?, unpleasant emotion, crazy
W hu•n, something that makes one go crazy; cf. M paht-hoon, forest (pat, "out")
PCC honok'a, lonesome, sad; K ho•noka-, sad; H-U ho•nok-?aro, angry
PR honok'aro, being lonesome, worrying about being alone, worrying about somebody
*ho-...-q, *hu-...-q ?, tadpole
W muyhuyuk, muyhuyu $\cdot q$, tadpole
N-M ho-mŏhl'-duk, pollywog; G hunô'ldu, pollywog
PCC hopodok, tadpoles; K hopodik, tadpole, pollywog
PR hopodik, tadpole
*hor-i/u, remain; cf. *huy, save
*hor-u-ma, save, leave behind
W hura, to be left over, remain, be the only one left, be the last of, be left behind; horuma', to leave a little bit behind; yel-hura, yel-hure, to outgrow, be spoiled, broken; yel-horuma', to break, destroy
PCC, K hori/u, to save; K horumaro, leave behind, what's left, left-over; CC horuma nat, save me
*hosop, light in weight
W hosopa, to be light in weight (Pitkin suggests derivation from *hos, generic aspect of ho, only, just; he also lists kosopas, light in weight (generic); cf. hol, light)
PT, R hosok, light
PCC hepeke, light in weight
*how, to snake, watersnake ?; cf. *hulilVk, snake sp.
W hOw-, rippling, lapping, swimming movement of fish, or of water itself, roiling; cf. hak, squirm; memhowolmet, water dog, water garter snake
PCC howe, watersnake; T huwe, snake; K howe, gopher snake ? (Whistler 1976e from Merriam)
PR howe, gopher snake, bull snake
cf. Nisenan huwe•nana, we•nan, watersnake (Uldall \& Shipley 1966: 274)
*hoy(..)oq, (slow?) bobbing movement
W xun-hoyokta, xun-hoyokpaq, to sneak up on; ?ol-hoyhoyokta, to go on tiptoe
PCC hoybok, to bob up and down; hoyboko, to bob up and down in water; PT-U hoyboko, to dip something up and down in water
*hu-, acorn sp.; cf. *hu•m, *hu•l, fat
N-G hulul, acorn sp.
PCC hum-t'aka', Q. kelloggii
*hu- ? *hu•l? *hu•n ?, wolf
NGT-M hoo' sed'-dit, big wolf [? - coyote]; cf. W hu•n, something that makes you go crazy?
PCC, K, T, R hu•l, wolf
cf. Ybv hulapinsa-s, wolf; Mm helíjene, wolf; PMi *hu•n, *hun•u, wolf (Callaghan 2001: 325)
*hul, cave in (tr.); cf. *hel, bank; *q'ilaq, dirt
W hul-, cave in, fall, roll backwards (cf. hEl-, cave in); hulal, to cave in (intr.), be caved in; hulel kirke', the old landslide it must be
PCC p'o•k mem hulis, beavers are building a dam; p'o $\cdot \mathrm{k}$ mem hulu robes, beavers built a dam
cf. PMy *(h)u:l, with reflexes including: collapse, landslide, fall, earth that slides because of the rains, slope, gorge; Plains Miwok ho:lukse, to fall (tree), to crumble, to cave in; Lake Miwok hól/hó:l, to fall down (said of a tree), to be caved in (said of a road); Siberian Yupik ullegh-, to fall over; Luiseno hulúka/i, to fall, descend, to descend a hill; Quechua urmana, to fall (all from Brown 1990: 49)
*hulilVk, snake sp.; cf. *how, to snake
W nomel hulilek, Calif. mountain kingsnake (Lampropeltis zonata)
PR huli $\cdot \mathrm{p}$, snake (any)
PCC kudilik, water snake sp.; fast snake sp. that lives on dry ground (not in water)
PK kudilip, water snake, garter snake var. (probably Western gartersnake, aquatic variety); Whistler 1976e: K kudilip, water snake (Thamnophis sp.)
SP-M hoo-lip', snake (any), watersnake
cf. PK k ${ }^{\mathrm{h}} u \neq i$ men, probably striped racer; PCC $\mathrm{k}^{\mathrm{h}} \mathrm{usi} \cdot \mathrm{p}$, water snake sp., gopher snake
*humuq, *hut-i, warm oneself
W hute $\cdot$, to warm oneself beside the fire
N-G tunhumukpa, sexual intercourse, "putting bodies together to get warm"; huh'-ti, type of contest, Huta (who could stand the most heat)
PCC humuku, warm (feeling, as by sitting by fire); $\mathrm{p}^{\mathrm{h}} \mathrm{o}^{\circ} \mathrm{k}$ 'ołta ham humukles, sit close to the fire so you'll get warm; hutu, (a person) is warmed up (from sitting next to a fire); hutis pile, they're getting warm; cf. PH-U huyp'it ${ }^{\text {ha }}$, to make love ?
PR humukus, it's warm; humukusa', real hot inside, stifling
cf. Yurok hum-, to sweat in a sweathouse (Robins 1958: 202)
*hu•m, *hu•l, fat
W hu•m, fat, grease; hu $\cdot 1$, fat (of a person)
N-S huum, fat, grease; H hu•lu, fat, fat meat
PCC hu m , to be fat, greasy; hu $\cdot \mathrm{mu}$, fat (of person); hu $\cdot \mathrm{le}$, dough of pounded seeds of t'ini $\cdot \mathrm{k}$ (Calandrina? oily seeds); K hum-, be fat
PR hu•m, grease, fat
SP-M hoom', fat
*hur-u, sew
W hure, huru-, to sew
N-S huya, sew; BW huyut-, sew
PCC huru', to sew
PR hur-, huru-, sew
*hur, full
W hurma, to be full; hurmema $\cdot$, to fill; qo•l hurmes, a mouthful of
PK hura•čh ${ }^{\text {aro, getting drunk }}$
PR huračh $a \cdot$, drunk; PT-U hurčaa, drunk
*hu•s, buzzard
W hu•s, buzzard
N-B hūs, turkey buzzard
PCC, K, R hu•s, buzzard; K, T, R turkey vulture
SP hu', turkey vulture (Whistler 1976e: A119)
cf. PMis *hu•șu-, buzzard, PYn *hoṭ ${ }^{\text {h }}$, buzzard, PM *hy•s, *hu•s, buzzard (Callaghan 2001: 325-6); PMy *?usex, *usex, *hos, with reflexes including: buzzard, blackheaded buzzard, king vulture, carrion bird; Xinca husu, buzzard; Natchez ōshia/ósi, buzzard (Brown 1990: 35-36)
*huy, save; cf. *hor-i/u, remain
W huye, to save, hoard, pack
PCC huya', (pick something) and put it in one place to store away
cf. SP-A "huimi" in: hueti chu mit huimi, I will go dump ... (vengo a verte)?

## i

*-i, nominalizing and neutral mode stem-deriving suffix (423.21)
See *kay-i/u, shame; *koy-i/u, koy-i-Pa, hurt, sick, want; *xed-i/u, fart;*k'ah-i/u, wind, wind blows; *k'eb-i/u, loosen by scratching; *lel-a/i/u, make; *wač-i/u, cry; *yal-i/u, leave; *?od-i/u-, itch, scratch
*-in, locative case (512.23)
W -n, -in, locative; cf. -n, subordinating inflectional suffix, potential temporal simultaneity, "while"
N-BW -in, in
PCC, K, R -in, locative-instrumental case (cf. PHR -na, locative suffix) cf. Central Sierra Miwok -win, -in, -n, suffix forming adverbs indicating place where or time when (Berman 1983: 402)
*-k, completive (424.5); cf. *qa, referential
W -k, completive
PCC -ču, resultative or completed stative
*-k, vocative suffix (531.39)
W -k, vocative suffix
PH $\quad-k^{\mathrm{h}} \mathrm{e} \cdot$, vocative suffix (Whistler 1980: 216) (combined *-k with *ye, vocative, before fronting could occur)
*kalay, gap; cf. *qo(•)1, mouth; *holoq, hole; *kan ?, *k'an ?, legs apart
W kalay, gap, among (cf. -kala•n, among); Pitkin suggests *kal, midst (?), perhaps *kala, to be in the midst (cf. ken, down, in)
N-K ka'i-pom-wa'i-kalai, name of a settlement
PK kalay, hole, ravine; cf. kabal mem, gap springs (kabal, a big canyon); irregularly not fronted, perhaps borrowed from N
Perhaps also double-fronted: taluk, gap, pass
*kan ?, *k'an ?, legs apart; cf. *kalay, gap
W kan-, have legs spread apart; cf. kaka;, crawl (Pitkin suggests < pre-Wintu *ka-, move); cf. č'an, (one) half, (one) side, symmetrical opposite of other half
PR č'anda•k-, step over something (perhaps a combination of inherited *kanand borrowed Nomlaki č'an- side, half)
*kaw, basket (mortar); cf. *kan? *k'an ?, legs apart
W kawi, big acorn basket, bottomless basket for pounding acorns; kawa; to put both legs on basket for pounding acorns; cf. kawal, dawn, spreading
N-B k!awi, mortar basket
PCC, K kawi, mortar basket
Irregular and recently diffused; perhaps not a valid set
cf. Alsea ka:wl, basket; Siuslaw kauwił, fish basket; Hanis Coos ka:wił, basket with handles (Golla 1997:161)
*kay-i/u, shame
W kaya', to be ashamed; kayi-, nominal stem; kayu-, imperative stem
N-BW kaya-, be ashamed
PCC čayi, in-law; K čh $a y i$, in-laws; čh ${ }^{\text {hayi/u-, be ashamed }}$
*ke-, have, own, get; cf. *khe, deictic
N-BW keh-, obtain
PCC čeme $\cdot$, to get, to own; čeli $\cdot$, to get, to own (animate)
PR-B čeli•, to have
Perhaps also:
PK pi čhume•ro, his stuff
*kel-, far, travel; cf. *k ${ }^{\mathrm{h}}$ e, deictic
W kele $\cdot 1$, far, long
N-C kě-le-la, long; BW kEIEl, far
PCC čel-, to wander about
PK čhel-, be around

PR-U pi čelni, he was around long ago
pi čeh, he's around
pi če•s, pi če•sa, he was around
cf. Alsea xlu:m-, to travel, move; p-xlm-i:s-, to go in a certain direction; Siuslaw xIntm-, to travel (Golla 1997: 166)
*kepkep, shake
W kEp-, knock on something, bang on something, sift; ?el-kepke-pa, to bang on continually, to knock continually; ?ol-kepke-pa, to sift and resift
PCC čepečepeho, brush or pat one's clothes (to clean them off)
*ker-u, finish off, gone
W keruma, to finish, stop, after having ... (cf. keruma, to slaughter, hack to pieces)
PCC čeru, to be gone; čeru ro, every last one; čeruwili, kill them off
PR-U čerima yori?a, Saturday, last day of work
*kid-i ? *k'id-i ? straight
W k'id-, be in a straight line, be an edge, rim, barrier; cf. k'ič, put across; tuk'idi, rim, edge
PCC, R či $\cdot \mathrm{di} / \mathrm{u}$-, stretch (oneself, wire, string, etc.), be staight, lined up; K $\check{c ̌}^{h} \cdot \cdot d i / u-$
*kik-i, frost
W kiki, frost, ice
PCC čači, ice; K č ${ }^{h}$ ačh 1 , frost, ice
PT-U, PL-U, čači, ice
Irregular vowel correspondence
*kim-u•r, rumble, roar
W kumu ra, to make noise, waterfall to roar, stomach to rumble; $\mathrm{ku} \cdot \mathrm{ma}$, to roar (waterfall, wings, etc.)
PCC kimi, K khimi/u-, khimu•ro, thunder; also K k'umurharo, growl, perhaps merged with *q'or, growl
PR kimi $\cdot r$, thunder
Assimilation in W to kumu $\cdot \mathrm{r}$-, in P to kimi $\cdot \mathrm{r}$ - ?
*kip, pull or throw up; cf. *qir, pull
W Tol-kipa, to throw upwards; ?ol-kipama, to tip over (tr.); cf. kipča, to roll, tr.; puyti kipča, to turn or roll over; thup-, pull out
PCC čiplo•ki/u, to pull up when released (as a snare), to whip back; to pull up and toss away (the pulled down branch springs back and tosses him)
*kip-, headband; cf. *kip-Vl, roll; *dibit, roll
W kipa•namas, headdress
PK tipilis, headband
*kip-V1, roll, run continuously
W kip-, roll (puyti kipča, to turn or roll over; kipulma•, to roll; kipkipča, to roll) PA-U čipel-, čipil-, run a race
*kol, join, perimeter; possibly ${ }^{*}{ }^{\text {h }}$ ol; cf. $*$ kol-i, something joined
W kOl, joint, join, edge, perimeter, rim; kolit, joint; cf. koluma, trail to divide, two trails to meet
N-BW koli, foot (cf. W may-kolča, to measure tracks by putting foot on footprint < kOl)
PK pi yeme č'upa•ro bes čholpelła, the road is finished on both sides
cf. PMi *kolo, PCo *kolo, PU *kolo, foot; PY *kalas•a, lower leg (Callaghan 2001: 320)
*kol-i, something joined, added on to perimeter < *kol, join, perimeter; possibly *k ${ }^{\text {hol-i; cf. *qo(•)la, hide, buckskin; *koro, net; *q}}$ holo, hard dome shape
W kuli, a piece added on, patch (from koli ?); Rel-kolča, to sew something to something
PCC čoli, skirt; K łaka• čh oli, tule dress, dancing jacket
PR čholi?, čoli?, breech cloth
*kopol, pond
W kopol, lake which is part of a creek, water hole, puddle
N-B kenkopol, valley
PK čopol, pond, marshy place
PR čopol, lake
*koro, net; cf. *kol-i, something joined, added on to perimeter
W koro, net, large net, fishnet, dipnet, veil, caul (<kOr, net, veil, cataract)
N-B kō-ma, dipnet
PCC čoro, fish net, head net; $\mathrm{K} \check{c h}^{\text {h }}$ oro, net (any kind)
PR-B č'oro, net
cf. PUA *ku, *k ${ }^{\mathrm{w}} \mathrm{i}$, bag
*koy-i/u, *koy-i-?a, hurt, sick, want
W kOy-, kuya• (<*koy-i-?a), koyi-, koyu-, to be sick, suffer; auxiliary "want"
N-BW koya'-, hurt; -ko-, want to, will, would like to
PCC čoyi/u-, sore, sick, hurt; K čhoyi/u-
PR čoyi?a, sick
cf. Alsea (Buckley 1988: 27) qãyk ${ }^{w}$-, spoil, hurt; (p. 21) łq’al’i.t-, łq’al’t-, be sick; PUA *ko, *koko, hurt (die, kill, sleep, pl.)
*ku-, small, child; cf. *k'urey, young boy
W -kur, son; ku•rit, male offspring; ku•ra, to have a child, to bear a child, to give birth, to lay an egg; ku•ruheres, offspring, children; ku•t'et, small, child, baby
N-W ku(h), child?; Noe-W ku•t'et, baby; BW -kun, son; J cru tet, small

PK, T k'uču•n, k'učh $u \cdot n$, small, little; CC Rew k'učiy bo•s, this one is small; k'utč ${ }^{\text {imma, a little, a little while ago }}$
PR k'učh uy?aro, k'učuk'aro, is small
SP-M koo'-sook, small; koo'-too mo-tah'-te, not big enough
Whistler 1980: 270 reconstructs *kur, *kuy, small, child. However, the r and y are not represented in P or SP .
cf. Alsea qti:m, younger sister (Golla 1997: 164); Csjb ku•ti-s, a little bit, Mm k'ût', creature; cf. Mil k'úč•i, small (probably a loan word from Hill Patwin) (Callaghan 2001: 328)
*kudu• ?, great horned owl
W č'u( $\cdot$ )skudu $\cdot t$, č'u $(\cdot)$ tkudu $\cdot t$, great horned owl
N-C chút-ku-dút, horned owl
PK, T, CC, R toko $\cdot \mathrm{k}$, burrowing owl (metathesis)
SP-M tō-kō'k', burrowing owl; too'-koo-le, great horned owl
*kuhum, *k'uhum ?, basket root
W cf. kuh, hard, dried, stiff (as buckskin) (cf. W-M ko-hahl, slim)
$\mathrm{N}-\mathrm{H} \quad \mathrm{k}^{\mathrm{h}} u h u \cdot \mathrm{~m}$, root (any kind, probably basket root)
PCC, K č'uhum, tulare root (the plant)
*kuk, to bend; cf. *q${ }^{\text {h }}$ ud, bend; *k'ok, brace
W phyeq xun-kukeles, knock-kneed, bowlegged (knees together-bowing)
PH-B ču ki , to bow
PR-B ču•ko, to bow
PCC čoče, calf (muscle), PR-U čoče, nape
*kuku, grizzly? (related to *kuk, to bend ?)
W kukup'iwit, myth. hero or heroine which can be a wolf or a mountain lion
PR čuk ${ }^{\text {h }} u y$, bear, grizzly bear
*kul- ?, penis; cf. *k'ul, seed
W kuli, penis
PCC yot, penis
This set according to Pitkin, personal communication 1996, with metathesis, *k>č>t finally in Patwin, l::y. It is highly irregular and perhaps not a valid set. An alternate W cognate for the PCC form may be yOt, yut, yot, pull something out; yoč, pull, jerk out. However, cf. Alsea kt-iy-s, penis (from unattested root kił), ki:la, my son! (vocative) (Golla 1997: 162), which may point to an areal term similar to *kul-.

$$
\mathbf{k}^{\mathbf{h}}
$$

*k ${ }^{\mathrm{h}} \mathrm{e}$, deictic (optative meaning ?) (630.); cf. *he, *hi, demonstrative-interrogative; *-k'en, may, might, lest; *ke, have, own; get; *kel-, far, travel
W ke, polite (concessive) deictic, emphasis mediated with optative force: ken, generic aspect, emphasizes the individual referred to at the expense of all
others who might have been referred to (in the expectation); cf. ken, warning; kele, hearsay; Pitkin suggests perhaps from ${ }^{*} \mathrm{kV}$, a pronominaldemonstrative (?), possibly related to ko•, all; cf. k'i, precedential
W-M wi-ker', upstream (probably represents [waykeł]; way, "north"; keł is archaic or borrowed from N )
N-P kekhl, tribe (ending on tribal names) (probably represents [keł])
PR čhe, now
${ }^{*} \mathrm{k}^{\mathrm{h}} \mathrm{en},{ }^{*} \mathrm{k}^{\mathrm{h}} \mathrm{e} \cdot \mathrm{n}$, *k $^{\mathrm{h}}$ en-ti, down (422.1); cf. ${ }^{*} \mathrm{k}^{\mathrm{h}} \mathrm{e}$, deictic
W ken-, down (into), below, in, downward; kenti, down (with directional); ke•n, in (downward), down in, from down, deep
N-BW kEn-, down; kEnti, down, under
PCC čhen-, čhenti, down; K čh ${ }^{\text {h }}$ enti, down
PR čhenti, bottom, under, below; $\mathrm{U} \check{c h}^{\text {h }} \mathrm{e} \cdot \mathrm{n}$, down
SP-A kentielan, eight
cf. Alsea qi:x̣n, below, under, underneath; Siuslaw qaxan, down, below (Golla 1997: 164)
*-khen, may, might, lest (424.6); cf. * ${ }^{\mathrm{h}} \mathrm{e}$, deictic
W -ken, inflectional suffix of warning; e.g., $\lambda$ 'o•muherken, you might get killed; cf. -kEl, may, might, must be
PCC -čin, -čh in , may, might, lest; K -čh in
PR -čin, might
$*-\mathrm{k}^{\mathrm{h}}$ is reconstructed based on the assumption of kinship with ${ }^{*} \mathrm{k}^{\mathrm{h}} \mathrm{e}$, deictic. P reflexes without aspiration may be due to suffix position.

* ${ }^{\mathrm{h}}$ erek, spider

W kerek, spider (cf. kOr-, net)
N-M kāk, spider
PK, T, R čheret, spider; CC čher?et, "black spiders" (black widows)
*k ${ }^{\mathrm{h}}$ et, trip
W kEt-, kita, stumble, stub toe; keča, to knock down; may keča, to trip someone (may, legs)
PCC $t^{\text {het }}{ }^{\text {h }}$ urho, to stagger
PR čhittupa, trap
*k'i i 1 , thorn; cf. *k'il, hail; *k'il-i, horn; *k'ir, sharp implement
W ki•lus, kilus, stickers, thorns, spines
NT-M ke'-loo, prickly briar
PK čh $\mathrm{h} \cdot \mathrm{li}$, thorns, thistle, wild rose; CC thorny plant sp.; T Calif. wild rose
PR čh $\mathrm{i} \cdot \mathrm{li}$, thorn, starthistle, any thorny bush
Whistler 1977a states that the P forms are borrowed from Miwok, citing PMis *ki•li, gooseberry. Since P has fronted $*^{\mathrm{h}}$, the borrowing would have occurred prior to the $P$ obstruent fronting chain.

* ${ }^{\mathrm{h}}$ ila, liver

W kilah, liver
PK čhela, liver
PR čhila, liver
SP-M chel'-lah', liver
cf. N-BW olkin, stomach
cf. PM *kyl•a, liver, PMi *kyl•a, ky•la, liver; PCo sira, liver; PU *kyl•a, *ky(•)la, liver (Callaghan 2001: 332)
${ }^{*} \mathrm{k}^{\mathrm{h}}$ od-, move (fast ? repetitive ?); cf. *k'o-, move in a direction, move toward; *k'od$\mathrm{i} / \mathrm{u}$, move inclined toward
W kOd-, kodora, to roll fast
PK č ${ }^{\text {h }}$ odč ${ }^{\text {h }}$ odt ${ }^{\text {h }}$ uro, trotting (horse, actually slower than trotting, skipping); U čodčodti, to hop

## k'

*k'a. mud; cf. * ${ }^{\text {h}}$ at, $\mathrm{q}^{\text {h}}$ ot, wet
W-M kah'-me, clay (representing [k'ami] ?)
PK č'a', white mud in the bottom, silt; H-U white clay of marsh; H-B to smear cf. N-M cho-awl', mud
*k'a-, snap; cf. *k'ab, crack open
W *k'ał, snap ?; semum k'ałčuna', to snap your finger joints; cf. kał, lock ? < *k'a, crack; k'am, pop, snap in the mouth and swallow
PH-U sem k'a•tsa?amaro, snap fingers
Irregular $k^{\prime}: k^{\prime}$ correspondence, probably due to sound symbolism
*k'ab, crack open; cf. *k'a-, snap; *qhapla, outer bark
W k'ab, open up, of nuts, mussels, oysters ( $<{ }^{*}{ }^{\prime}$ 'a, crack); k'aba', to shell or hull acorns or nuts, crack acorns; k'aba•ya, to be opened up, of mussels, oysters; k'abal, to be opened up wide
PR č'abta, shelling (taking the shell off after it's cracked)
cf. PMy *k'ab', with reflexes including: half opened, to be with mouth opened, very opened, to open a little; Kiliwa kap, open, uncover (Brown 1990: 44); cf. also W k'aw, split, crack lengthwise, beat seeds; PMy *k'aw, with reflexes including: split, open a crack, open a little, with the mouth opened, remaining opened, not well closed, force open or apart; Kiliwa q ${ }^{\text {haw, break open/apart (Brown 1990: 45) }}$
*k'ah-i/u, wind, wind blows; cf. *xos-a, air, blow
W k'ahi, wind, air; k'aha(•), k'ahu-, wind to blow, be windy
PR t'ahi, wind (strong), gale; k'ahu $\cdot$ ro, big wind blowing

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*k'ahay, nail(s), claw(s)
W k'ahah (p), k'ahay (g), nails, claws
N-B k!ai, nails
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PCC, K č'a•y, claw, fingernails; K "finger" when designating a particular finger as in k'om č'a•y, thumb, lit. big finger(nail)
PR č'a $a$ y, fingernail, claw
cf. Alsea qwanł-i:yu:, fingernail (Golla 1997: 164)
*k'al, intense visual perception; cf. *k'ala( $\cdot$ )l, flowers; *wal, flame, lightning
W k'al-, stare, gaze intently, intense visual contact, glow, receive intense visual impression/sensation; cf. k'al, charcoal, glow
N-G kêntcalokta, lightning (fronted and perhaps borrowed from P)
PK č'alo ki, white (cf. also W łuru qi , white)
PA-U č'ali, light; pi tosamenti č'alibes ?ana, a lot of light comes from that star
SP-M chul-lo'-ke, white; chal-lo'-ke, white paint (white earth like chalk from hills)
cf. P č'am-, white; PT-U č'aril, white in eyes
cf. PYnim *č'olol (*čolol ?), white, Csjb tcalka, pal(.)ka, white (Callaghan 2001:333)
cf. the following Proto-Northern-Wintun set:
*k'al, coals; cf. PW *k'il, hail; *q'al-i, charcoal
W k’ali, hot glowing coal, coals, charcoal; cf. k’eli, charcoal; k’alał, "one who stares with a coal or dark eye"; k'alaw, a burnt log, from a stump, a dead burned tree, an ash tree ? (loan translation from English ?); k'elel, soot, ashes
N-M kah-la'‘, live coals or embers; cf. also N-C áli, charcoal
*k'ala( $\cdot$ )l, flowers; cf. *k'al, intense visual perception; * ${ }^{\text {h }}$ olo, sunflower sp .
W k'ala•la, to be lit up pretty, to stand in a row alike; no•pun ma•t k'ala•la, specific flower, "blue bells," lit. deer's ears -?; cf. qanal, to be in full bloom, to be open wide, of a flower; fragrance, sweet; yellow; qanal yemer, Milky Way; q'an, wide; q'an, wings
N-S k'alal, flower
PCC č'alal, flowers, to bloom; K č'ala $(\cdot) 1$, flower; čala $(\cdot)$ lta, to bloom, to flower
PR č'ala( $\cdot$ )l, flower
*k'alaq, feather; cf. *q'an, wing
W k'a•laq, k'alaq (g), k'alah (p), feather(s), feather headdress; also q'alaq, feathers
N-G kalak, duck feathers
PCC č'alak, feather necklace worn by bighead; K secondary wing feather, feathers inside the wing (near the shoulder)
*k'ał, split
W Tel-k'ałčus, knife
PK č'ałi/u-, split (as wood)
*k'ap, move stones; cf. *q'apa, to trap
W k'apa , to turn over stones in dry stony place, to push off stone, to make a
"bed" to roast salmon; xan-k'apa, to clear stones at a place
PR-B čapen, fish dam; PR čapenoro, "fishing that way"
*k'ar-a, scrape; cf. *qor, grind; *qar-čh ${ }^{\text {h }}$, rake
*k'ar-al, stative form?
W k'ara, to scratch, scrape; k'aral(ta), to have a scratch; cf. xara', to gnaw; k'ira $\cdot$, to chew on; qOr-, grind
PK t'ara $\cdot 1$, scraper (like a knife)
PR č'art ${ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}$-, to scratch
The following are not fronted or point to a PW *q' whose W cognate has been lost:
PCC k'ara( $\cdot$ )si/u-, to scratch; k'ara(•), mow, cut off little bush, cut off the ends
cf. Karok ?akxárap, to scratch (?ak-, with the hands) (Bright 1957: 437); Northern Yana k'alc'au-, to scratch with sharp claws (Sapir \& Swadesh 1960: 107)
*k'at? mesh
W k'at-, lots of spaces, not touching or continuous surface; k'ata, to be loosely woven, like a basket with deliberate holes (cf. kOr, net; kum, no holes); k'ati, wide mesh, big mesh, thin, lots of spaces
PK kada, large net, mesh about 4 in.
Irregular; cf. N-W k ${ }^{\text {hat, }}$, stomach?
cf. Proto-Quichean (and PMy ?) *k'aht, net bag; Nisenan k'at, string (Brown 1990: 38)
*k'ay, rodent sp. ?, gopher ? squirrel ?
W k'aysas, gray squirrel, "fast walker" (cf. PW *q'ay-i/u, walk)
N-BW k'ayuth, woodrat
PCC, T k'ay, gopher; K gopher, muskrat
PR k'ay, gopher; small gray gopher sp. (prob. meadow mouse, Microtus)
The PW form could be *q'ay if W folk-etymologized with k'ay-, fast. Otherwise, irregularly not fronted in $P$.
*k'eb, tall and swaying
W k'eb, be tall, straight and swaying (k'ebuq 7isuk, she was tall and swayed)
PR č'ebi, wild hemp (Whistler 1976e from Kroeber)
*k'eba, lungs, chest
W k'ibah, lungs, k'ib-, hiccough; cf. k'Eh-, breathe with difficulty, clear the throat, k'e ha, to breathe with difficulty, as people having asthma; k'iha', to breathe as if you have TB with a rattle and a wheeze; k'e•da, to choke gasping for breath
PCC č'eba, chest (of human or deer; the whole thing); T-U chest, lungs
SP-M cheb'-băh, chest
*k'eb-i/u, loosen by scratching; cf. *xeb, open by scratching or scraping
W k'Eb-, k'iba', dig with paws, scratch in the dirt, stump; k'ibal, to be loose
after being fastened; k'ebu, imperative stem; k'ebi, nominal stem
PK č'ebi/u- nibble (like a rodent)
*k'eč-, yellowjacket
W wenemk'e(•)či, wenemk'ečit, yellowjacket, wasp (a partial folk-etymology including wenem 'middle,' perhaps referring to the insect's narrow midsection)
N-C tu-ká-chit, yellowjacket larvae; M too-kah'-che, yellowjacket
PCC, K, T t'ečew, yellowjacket; K t'ečhe $e \cdot m a n, t$ 'ečhe $e \cdot m e n, t$ 'ese $\cdot m e n$, yellowjacket
PR t'ečew, yellowjacket; cf. k'eček, blue wasp sp.
*k'el, jackrabbit
W patkeles, jackrabbit (folk-etymology "outside-long one")
N-SS pátkele, jackrabbit
PCC, K č'elo•, č'elow, jackrabbit, rabbit; T č'elo•, jackrabbit, rabbit
PR č'elow, jackrabbit
SP-M 'chel'-lo, t'chel-o, black-tail jackrabbit
*k'en-i, winnower
W k'eni, k'enu $\cdot \mathrm{s}$, sifting basket, winnowing plate
N-K k'êni, parching tray; cf. tenu, sifter
PR č'e•n, winnow by dropping or pouring
and irregular:
PCC, K k'eni, winnowing basket (not fronted)
SP-M ten-ne'-che, circular winnower (double fronting)
*k'ep, break
W k'Ep, break in two, shred, bend, shape by bending
PCC, K č'ebi/u, chip pieces off
*k'es, worm
W k'e•s, angleworm
N-S k'eh, worm; M kem, worm, hairy caterpillar
PCC č'e', earthworm, fishworm; K, T earthworm; CC č'esimen, inchworm; K, T click beetle?
cf. PYnim *k'at ${ }^{\text {h}}$ uw ? worm (Callaghan 2001: 327)
*k'ete•t, one (265.)
W k'ete•t (p), k'ete•m (g), one
N-BP k'etet, one; H k'ete $\cdot \mathrm{m}$, one
PCC, K, R Pete•ta, one
SP-M et'-tah, $\bar{a}-t a h$, one
Irregular ${ }^{*} \mathrm{k}^{\prime} / 7$ correspondence perhaps due to dissimilation after double fronting *k' ${ }^{*} c^{\prime}>{ }^{\prime} \mathrm{t}^{\prime}$
cf. PMi *ken $\cdot$ e, one
*k'id, squeak
W k'ide $\cdot$, to bray (of donkeys); k'i•da, to bray, gasp for breath with great effort; k'idi•ra, squeal with laughter, giggle; cf. k'Ed, gasp
PCC č' $i \cdot t k^{\mathrm{h}} a 7 \mathrm{a}$, to squeak (as a mouse, etc.)
*k'ih, separate into strands or slices
W k'ihe , to comb with finger to separate or to thin out roots for strands, to comb or brush hair; k'i•ha, to comb, to brush; cf. č'ehe, to scrape; č'ehet, rock smoother, a scraper for skinning salmon and deer (cf. č'Eb-, sharp; č'ebet, stone knife)
PCC č'ihi/u, to cut slices off
*k'il, hail; see also under *k'al, intense visual perception
W k'il, hail
N-M keel', hail
PR č'il, hail
cf. Alsea c'i:l, hail (Golla 1997: 161)
*k'ilap-?a, afraid, have fear; cf. *q'a•q, mental clouding
*k'ilap-?a-ma, causing fear, frightfully, really
W k'ilep, fear, afraid, frightened; k'ilepma', to be terribly ..., be causing fear
N-BP k'ileepa, to be afraid
PR č'ilapas, č'ilapta, afraid
PCC sela?a, afraid, scared; sela?ama, frightening, really ...; K se•la-, afraid (irregular)
SP-M che-lah'-pah, afraid
*k'il-i, horn; cf. *k'ir, sharp implement; *k'il, hail; *k'i $\cdot 1$, thorn; *q'i 1 , dull; *hil, slice; *k'ahay, nail(s), claw(s)
N-PS k'ili, horn; B k! $\overline{1} 1 \bar{i}$, antler
PCC, K, R č'ili, antler, horns
SP-M chil'-le, horns
W has no exact cognate, but a wide range of closely and distantly related forms referring to sharpness or penetration, such as ${ }^{*} \mathrm{k}^{\prime} E l$, break, penetrating; k'il, hail, gravel; k'ik-, chip; k'i•r, spear; k'ilep, fear; k'Eh-, breathe with difficulty; k'el-, knife cf. PMi *kil•i, *ki•li, PCo *či•ri, PU *kil•i, *ki•li, či•li, horn, antlers (Callaghan 2001: 321)
*k'ililuk, hawk sp., Cooper's or marsh hawk ? cf. *lik-, hawk sp.
N-M chil-lé'-lik, Cooper's hawk (Accipiter cooperi); cf. lik'-lik, sparrowhawk (Falco sparverius)
PK č'ililuk, horned lark (Whistler 1977a from Merriam); cf. PCC, R ?ele?ele, marsh hawk; C Pele•li, marsh hawk (<*k'ele-)
SP-M kel-lel'-oo, marsh hawk

If the SP form is irregularly not fronted, it points to a proto-form in $k$ or $k$ '. However, this would make the N form borrowed from P . Alternatively the proto-form could be *č', in which case SP would have backed instead of fronted.
*k'ir, sharp implement; cf. *k'il-i, horn
W k'i•r, spear
PK čhiri, manzanita wood pin to hold net or headband on head
*k'is, seed plant sp.
W k'is, pepperwood seeds, specific nuts from the pepperwood tree, specific seeds like marbles, roasted and eaten or used decoratively, strung on necklaces, also used as noisemakers; k'ismi, wild pepperwood tree (also k'ilmi); cf. k'it, white flower deer brush
PCC čisaw, seed plant sp. (white "head" of flowers, round)
PR čisaw, seed plant sp. (up to 3', on alkali ground, graying-looking seeds)
*k'iw, hot rock ? cf. *xiw, embers
W k'iwe', to sweat; k'iw son, cooking stone; cf. xiwe', to heat rock, heat food; yiw-, acorn soup; kir-, singe; hir-, fire, burn; k'ih-, acorn soup sticks to cooking stones; broil, toast
N-M kew, cooking hole in ground; BW k'iwa-, sweat
PK č'iw, hail, CC č'iwsin, hail (-sin $<$ *son, rock ?)
*k'iy, old man
W k'iye', man to be old; k'iyes, old man; k'iyeh, mother's brother, uncle, grandfather
N-M nā'-tum ke'-ah, uncle (father's brother), listed in Whistler (1980: 243) as nehtum k'iya(h), along with k'iyah, uncle ?; k'iyas, old man
PCC č'iyak, old man; č'iyaba, old men; K čhỉakaro, I'm getting old; č'iyak, č'ekos, old man, č'iyak?aro, he's getting old
PR č'iyak, old man, older people
SP-M che', che'-e, old; che'-e, old man; if the second e in the last two forms represents [e] rather than [i], *k'iye may be reconstructible
cf. Alsea (Buckley 1988: 22) q'á•l't, man
*k'o-, move in a direction, move toward; cf *k ${ }^{\text {h }}$ od-, move (fast ? repetitive ?); *k'od$\mathrm{i} / \mathrm{u}$, move inclined toward
W *k'O, move; cf. k'Od-, move, be or get in indicated position or direction; *ka-, move; k'oduma, to hunt
N-BW olku-, get up
PK pima č'o, get that; č'o--, to get (bread, etc.)
*k'od-i/u, move inclined toward; cf. *k'od-, move (fast ? repetitive ?); *k'o-, move in a direction

W k'Od-, k'uda•, k'odi-, k'odu-, be or get in indicated position or direction, move from place to place, step, visit; se-k'uda, to move around; k'oduma, to hunt
N-BW q'oda-, crawl
PCC č'odu, to walk upslope; č'o•di/u, to crawl, to climb; K č'odu-, crawl (as a baby)
PR č'odi/u-, crawl, sneak
*k'ok, brace; cf. *k'ok'o, flea; *hok, raise; *č'oq, dry and stiff
W k'Ok, brace, log, rafter, stem (k'ok, log, rafter, stick, limb, young tree; pomin k'okol, to be braced, to kneel down and brace oneself so as to shoot; ?olk'okuwil, to lift (tr.); ?ol-k'ukal, to lean on (intr.); k'uka', to put rafters up or down)
N-M lol-kok, pipe; ‘hlool-kok, branches; paw'-kok, fire drill
PH-B č'o.če, bridge; PT-U t tho ki, a brace
cf. Alsea ku:x wood, tree, stick; ko:c, tree, $\log$ (Golla 1997: 162)
*k'ok'o, flea; cf. *k'ok, brace
W k'okos, flea, "he who puts rafters on"; also q'oqos
N-B kōk!as, flea
PC, K, T č'oč'o', flea; CC č'otč ${ }^{\text {h }}$ ow, flea
cf. PMi *ky(•)kys, flea; PM *t'yk'ys, flea (Callaghan 2001: 327)
*k'olom, cup-type basket
W k'olom (g), k'olol (p), small cup or bowl serving basket, container, dish(es) ( $<$ k'Ol, become curled ?); cf. xolom, umbrella leaves; xolom, dipper
N-M kul' ${ }^{-\bar{o}}$, large cooking bowl (twined)
PCC č'olom, acorn cup, acorn cap
PR č'olom, acorn cap
cf. Alsea kwal' (or kwla?), to gather, to pile (pl.) (Golla 1997: 162)
*k'on, clench, stiff ?; cf. *q ${ }^{\text {hon }}$, dry
W k'On, clench, in a ball, knotted, hard; k'onil, clench; ?el-k'unal, to be stiffjointed, numb from the cold or other cause; ?ol-k'unal, curl up and dry
PT č'onirho, to stagger
cf. Alsea qwanu:h-, fistful, handful; qwanhut-, to scoop; qwanah-a, knot (in trees)
(Golla 1997: 164)
*k'op-i, basket type
W k'opi, conical burden basket (close twine)
PCC č'opol, flat, round basket for cleaning seeds, etc., winnower; č'o•b, small chokemouth bowl, tiny bowl
PR č'opol, flat basket for sifting acorn meal after it is ground, winnowing basket; č'obok, mortar
PA-U č'obil, bowl
*k'op, chop; cf. *q'op-a, break with fingers, * ${ }^{\text {h }}$ op, cut off, slice; *k'ab, crack open; *q${ }^{\text {h }}$ op, stripe
W k'Op-, k'upa, chop, cut in two, cut off portion from whole; k'Ob, segment PCC, K č'op, to chop
*k'opus, *k'opos ?, screech owl
W k'opos, screech owl
PK, T k'upu', screech owl; CC k'upu', small owl sp.; CC, T k'opu', screech owl
PR k'opu(•)s, screech owl
SP-M ko'-poo, screech owl
*k'or, scratch; cf. *qor-i/u, grind; *k'ur-a•, tear; *k'ar-a, scrape
W k'Or, shave, whittle, scrape, plane; cf. k'ara•, to scrape, scratch; č'Or-, skin nuts
PCC k'oro', scratch (more than once); H-U č'u•rta, slash with knife
PR k'orti, to scratch on the body (with hand)
*k'ul, seed; cf. *kul-, penis
W k'ul, male relative, consanguineal (k'uleh, grandson, nephew, blood brother; k'uley, stepson, grandson, nephew, older brother's children) (cf. k'ur-, boy)
N-S c'uli, seed (borrowed from Patwin?)
PK č'uli, seed (any kind, inside a fruit)
*k'ur-a', tear; cf. *k'or, scratch; *k'ar-a, scrape; *q' ${ }^{\text {her }}$, scrape
W k'Or, shave, whittle, scrape, plane; k'ura•, to shave something big like a canoe or boat; k'ure $\cdot$, to chop down small limbs; cf. č'o•r, open nuts
PCC č'u•r, to tear (pl.); č'ura•, to tear (one); K č'urta, to tear with a quick motion; č'u•rta, to tear with a slow motion; č'u•raro, split open, rip apart
*k'urey, young boy; cf. *ku-, small, child
W k'ureyta, k'urita, little boy
N-C nět=kui, my nephew
PK č'uray, boy (young, 6-10)
SP-M choo'-ri', young
*k'uril, ribs; cf. *k'uwi•l, bent
W kuril, ribs, side
PCC č'uril, ribs
PR č'uri•l, rib(s); č'uri•was, turn on your side! lie on your side!
SP-M 'choo-ril', ribs
*k'uw-, pike
W k'uwa•, riffle pike
PK č'uwes, small pike (Sacramento blackfish ?)
*k'uwi 1 l, bent (crooked ? arched ?); cf. *k'uril, ribs; *qhud, bend
W k'uwi $\cdot 1$, eyelids, eyelashes, eyebrows; cf. kup-, crippled, bowlegged
PCC č'uwi lo, crooked (pl., with lots of crooks); č'uwi $\cdot 17 \mathrm{a}$, bent, curved (sg.)
cf. Alsea cawłi:t, eyelash (Golla 1997: 160); Jacaltec koyan, arched, bent in the form of an arch; Chuj koy, arched (Brown 1990: 60)

## I

*labe-, *labe-n (with kinterm absolutive), older brother; *-łaben following first or second person possessive pronoun ( ${ }^{-} \mathrm{t}+$ *-l $>{ }^{*} \mathrm{f}$ )
W łabe (•)h (p), łabey (g), older brother; łabe•nup’ulel, be two full brothers
N-C nět=lá-ban, my elder brother; H net laban, my (younger) brother
N-BW -tlabal, sister; -tlaban, brother; T-M net'hlab-ban, my elder brother; cf. N-W mi-ləm ?, older brother (Whistler 1980: 243)
PCC la•b, older brother (vocative); la•beču, my older brother; la benpel, two brothers; małaben pel, your two brothers; mi lombosa małabey hene•ła, you're happy when your older brother comes; K ?uylaben, (his) older brother, na $\cdot \mathrm{min}$ labač ${ }^{\text {h }} u$, my older brother
PR laben, older brother; la beču, my older brother
SP-M lah'-bitch-choo, lah-vā san'-choo, brother; Whistler 1980: 268: la•be, brother, sister?
cf. Kato -la, man's brother's son; Mattole -e:lah, brother's son; Nongatl -la-chi, nephew (found widely in Athapaskan) (Golla 1998: 8)
*lak, tie; *lak-čh - (with mediopassive)
W laka; to fasten with a rope; lakal, to be pinched together; lakas, sinew; lakča, put one's arms around, embrace, hug, fasten or anchor in a rivet; cf. *la, stretch, sinew
PK duł lakt ${ }^{\mathrm{h}}$ unanta, tie around the head; cf. larth ${ }^{\mathrm{h}}$ uro, tied together; U la $\cdot$ ta, tied
*lak-o/u, hooked strap, strap with hook; cf. *law, tendon, sinew; *lak, tie
W lakum, belt, strap; laku•s, hooked stick; cf. $\lambda$ 'aqu•s, barbed hook $<\lambda$ 'aq-, pick off, pull off
PK lačow, Big Dipper, "hook," long pole with hook on end for knocking down acorns
PR lačok, straps (hooks) on pack basket
*lal-a, sting
W lala, to sting
PK, R lala-, to sting
*laq, save for
W laqa , to leave/reserve/save something to eat for someone
PK ?ut č ${ }^{\text {h }} \mathbf{u}$ laklakat ${ }^{\text {hebus, I'm gonna do things for him/take care of him }}$
*laq, wild goose sp.
W laq, wild goose
N-C lak, brant; M lahk’, green-wing teal (Nettion carolinensis); BW laklak, duck
PCC lakkas, white-fronted goose; K laklak, goose sp.
PR lak?a, cackling goose
SP-M lah'-lok, lah'-kahs, Western Canada goose; V lala'k, white geese
Widespread imitative term found across North America
*la•s, skin; cf. *law, tendon, sinew; *law, flabby
W la•s, skin
PCC, K la', skin, hide
PR-B la•s, skin
*las-a, crawl; cf. *los, scrabble
W lasa', crawl, creep, of bugs (cf. la•s, skin)
PC-B lasalasa, big red ant sp.; K-M lasalasa, spider (both forms cited in Whistler 1976e)
*law, tendon, sinew; cf. *łar-čh ${ }^{\text {h }}$ u, sling; *law, flabby; *lak-o/u, hooked strap; *la•s, skin
W la $\cdot \mathrm{w}$, muscle, tendon, sinew, gristle, bow string (cf. *la, stretch, sinew; lasik, bag)
N-M lah'-o, bow string, tendon, sinew
PCC, K, T, R law, tendon, sinew
PT-U law, spine
*law, flabby; cf. *law, tendon, sinew; *low, hang; *yaw, pendant
W law, be pendant, hang (cf. *la, stretch, sinew)
PCC la•w?a, weak, body has no strength, close to death
*lay, sister (younger ?)
W la•h, layah (p), la•(g), -lah, older sister; layk'ut, younger sister; cf. ni-la•k, my relatives
N-W lahay, younger sister
P ła $n$, younger sibling
SP ła•n, younger brother? (Whistler 1980)
Perhaps *-t + *-l > Patwin ł; cf. *labe-, *laben, *łaben, older brother
*-le, intentional future, "going to" (424.7); cf. *lel-a/i/u, make
*-le-s, nominal form
W -le, necessity, causality, futurity, potentiality, probability, inevitable future; usually translated as "going to"; -le•s, nominal form
N-BW -le, let us
PCC -le(da), I'll ..., I'm going to ...
PC les, can (used also as a 'come and ..., go and ...' imperative); -len, should

PR -le, I'm going to ...
SP-A chu maleina, I will eat (yo comere)
*-le, *-le• before a consonant, pronominal plural (531.22)
See *male•no, *mile, *mile•t, *p'ele, *p'ele•t
*leh, glide by; cf. *lew, vibrate, oscillate; *liw, fan, wave, gesture
W lihel, to pass (in the indicated direction), lehekta, to pass someone on one's way; cf. led-, flutter, rise in the air, sail, vanish; lEd-, wings to flap; le•da, to wave back and forth; de-h-, glide
PR le•huro, gliding (as a bird), also used in dance; le•hi, used to refer to the dancers in a certain dance
*lel-a/i/u, make; cf. *-le, intentional future; *lew, vibrate, oscillate
*lel-u-na, become (with reflexive)
W $\quad 1 E l-\mathrm{a} / \mathrm{u} / \mathrm{i}$, make, become, be transformed, change, clear, clean, copy, place, lead, arrange, blame, accuse, tease; lelna•, to turn into; leluna•, to blame oneself; cf. *lEd, alternate, replicate, duplicate, dualistic movement (led, flutter; le•t, both; le•t, clear away; lEt, disperse; lel, two; lEl, tranform)
PCC lela', to make (plural of lelu); PK lel-i/u, make, fix; pi lelunanta $\mathrm{k}^{\mathrm{h}} \mathrm{udi}$, he turned into a bird
PR lel-i/u, make
*len, clover, grass
W leni, leaf, leaves, green leaves
N-S leni, grass
PCC, K le•n, len, clover, grass, type of clover; T len, clover
PR-B len, clover sp.
*le $\cdot n,{ }^{*} \operatorname{le}(\cdot) \mathrm{n}$ - i , yester-, last; or: the passing of one night?
W le(•)n-, old, ancient, past; le•nda, yesterday; leni q'upus $\lambda$ 'ul, "old old lake"
N-G le•nitluyuk, evening star; M po len'-ne, tonight; len'-nin, yesterday; lá‘-nah, night; len pah-pil', last year; B leni, night
PCC le•ni, yesterday; T le•ni, evening; lenčul, yesterday; K le•nčul, yesterday; ?ewle niła, this evening
PR le•ni, yesterday; leniba $\cdot$, evening meal
SP-M láa'ne, day, a day ( 24 hours); la' ${ }^{-}$-ne wen-ne, tomorrow (lit. tomorrow [i.e., day] come)
*leq-čh ${ }^{\text {h }}$ u, tired; cf. *łet, exhaust, wear out
W leqča, to be or get tired (as of fighting)
N-BW lakca-, lakcu-, be tired
PCC lekt ${ }^{\mathrm{h}}-\mathrm{i} / \mathrm{u}$, tired; K lekt ${ }^{\mathrm{h}} \mathrm{i}-$, tired; lekčuna $\cdot$, to be tired; cf. le•ya•ro, getting tired, exhausted, giving out
PR-U lekt-i/u, tired
cf. Alsea qli:h-, qlh-, to be tired (Golla 1997: 164); cf. also PW *xin-a, sleep
*ler, cricket; cf. *lir, rub
N-BW lith, grasshopper (probably [li $\theta$ ] < lir-h)
PCC, C lerler, cricket
*le•t? *le•r ?, clean; cf. lir, rub
W le•ta, to clear away, clear off; both; cf. le•t, both < *IEd, alternate; PW *lela/i/u, make
PCC le•rumas, good, clean; le•rumaro bo•s, clean
SP-M lā-le'-me-baw', good
*lew, vibrate, oscillate, such as stems, limbs, twigs; cf. *leh, glide by; *len, clover, grass; *low, hang; *liw, fan, wave, gesture
W *lew, vibrate, oscillate (leweq, limb on a tree, branch, twig; liw-, spring; liw-, fan; lew-, fan)
N-BW 1Emmath, water clover
PK lew, grasses, clovers, herbs, weed, stem of flower, any small plant; CC lew, grass
PR lew, grass (any kind outside)
*ley, younger brother
W leyk'ut, younger brother, mother's sister's son, uncle; leh-, younger brother, relatives; net-leh, my relations, relatives, kinsmen; net-lehet, my younger brother; cf. k'uley, nephew?
N-W leh, younger brother
PCC leyta, relative(s); K leyta, friend
cf. Yurok -ley?, brother (of a woman); -let, sister, female cousin (of a woman) (Robins 1958: 216)
*lib-čh,$-{ }^{*}$ lip-čh ${ }^{\text {h }}$, submerge
W lip-, be thirsty, appease someone's (craving), lipiskuya, to be thirsty; me•m lipi•ra, water to have waves or riffles; lipča, to appease someone's thirst
N-BW lihpa-, thirst; lihpal-, be weak; M mem lé ${ }^{-}$-pah, thirsty
PCC libt ${ }^{\mathrm{h}}$ i, to flood, go under water; yo•wesna libthis, he jumped into the water, got in it
PR libtt i , "means everything going under covering everything," submerge
*lik-, hawk sp., Swainson's ?; cf. *k'ililuk, hawk sp.
N-M lik'-lik, sparrow hawk (Falco sparverius)
PR likki ?, Swainson's hawk (Whistler 1976e from Merriam)
If this is indeed the Swainson's hawk, a related W root may be lEk-, decorate, trim, cut a fringe, referring to this hawk's conspicuous white patch on the throat
*lim, fade away; cf. * $\lambda$ ' $\cdot \cdot m-u$, kill
W *lim, fade ? (lim-, be sick, ail; limon, out of sight or hearing, fading out of range of perception; limi ra, to rumble, as of an earthquake - diminuendo; limuča, a very far off vague rumble)

PK limpe, wiping, cleaning; limo, to kill; CC limbak, to flash or blink at intervals
PR limo, killing; possibly cf. B limtak, to limp
*lir, rub; cf. *ler, cricket; *lor, grind
W lirik to rub
PCC $\quad \operatorname{lirt}^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, to rub on
*liw, fan, wave, gesture; cf. *lew, vibrate, oscillate
*liw-na, fan oneself
W liwa•, liwe•, to fan; xun-le•wa, to wave to someone to come; se-lewna•, to fan oneself
N-W lew, wing, feather
PCC liwnan, to fan oneself; liwko, to wave at repeatedly; liwi•ko, to gesture with hand (once) at someone to come, to beckon

* $\operatorname{lo}(\cdot) 1$, tobacco

W lo $(\cdot) 1$, tobacco
N-B lol, tobacco
PH, R lo $\cdot 1$, tobacco
SP-M lōl, tobacco
*lolo $\cdot \mathrm{q}-\mathrm{i} / \mathrm{u}$, point; cf. *lul, cylinder
W lolo qa, to point with the finger; *lol, point, put a curse on someone while pointing
N-K lolô'k, deer bone awl
PK, T lolo $\cdot \mathrm{ki} / \mathrm{u}$, to point
PR lolo $\cdot \mathrm{ki} / \mathrm{u}$, to point at
*lom-u, place a sling
W lom-, sling; Pel-lomča, to tie a sling around, put in a sling; 1Om, bait (luma', to be baited; lomuma $\cdot$, to bait)
N-M lăn', sling
PR-U lomuro, still being placed; lomura behta, has been placed
*lom, happy
W lo(•)m, spirits, wine; cf. lo•y, spirit; lOm, bait; lo $\cdot 1$, tobacco
PCC lomi/u, happy, glad; cf. K lumhi, pretty
PR lomi/u, glad
*lor, grind, sharpen by filing; cf. *los, scrabble; *las-a, crawl; *lir, rub
W lor-, lo $\cdot \mathrm{r}-$, grind, rub, file
PCC lori/u, to grind, to sharpen by grinding
PK $\quad$ olt $^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, grind; lolu•ro, to file, sharpen by filing
PH-U lori/u, sharpen by rubbing, rub, file
PR lori/u, sharpen, grind on a stone, hone

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*los, scrabble; cf. *lor, grind; *las-a, crawl
W loso ra, to make the noise of the claws of a squirrel running on a tree
PR lo•st \({ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}\), to rub
*low, hang; cf. *law, flabby; *lew, vibrate, oscillate
W 1Ow-, hang; pat-lowe, to hang out, stick out; pat-luwa, to hang out and down
PH lo \(\cdot t^{\text {h }} u\), to hang (intr.)
PR lo•tu, hang
*lo•y-, adolescent girl
*lo(•)y-ba (plural)
W \(\quad \operatorname{lo}(\cdot)\) ymes, adult female virgin, girl, maiden
N-BW loyba, girl, young woman
PCC lo•yta, young woman; lo•yba, plural; K loyta, girl; loyba, girls
PR loyta, a girl
*lul, cylinder; cf. *lolo \(\mathrm{q}-\mathrm{i} / \mathrm{u}\), point; *lul, flowers; *lur, shin
W lul, long cylinder, large log, cylindrical thing; łul, sticks, rattle; łulu•s, bunch
    of sticks used instead of split-stick rattle; łi•l, flute; li•lus, flute
N-M lool', trunk (of tree)
PK lul, basket stick from redbud; cf. PK lollol, flute; PR lo•lol, flute
*lul, flowers; cf. *lul, cylinder
W luli, flowers
N-H luli', flowers
PCC, T, R lul, redbud
*lup, stick into (vertically ?); cf. * \(\lambda\) 'op, insert long things (vertically ?), poke, stick
into
W 1Op, stick in, reach in; cf. \(10 b\), string beads (i.e., insert string); lu p, vagina
PCC lupik spear (with flinthead)
SP-M loo'-pik, spear (for war, to kill people)
*lur, shin; cf. *lul, cylinder
W lurur, leg
PCC lu•l, shin
PR-B lupir, shin
*luyuq, ridge
W-M toom loo'-yook, too-mul'-lo-yuk, cheek bone (malar) ("face ridge")
PK luyuk, ridge, peak; CC luyuk, ridge
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*ła•, sit (perhaps from *ła-, be located + auxiliary *-?a, have > "have location"); cf. *łah, fall; *łu•t, dancehouse
W ła•, to sit (occurs only with directional or locative prefix; e.g., kinła•, to sit down; ?elła•, to sit down inside)
N-BW kEnLa-, sit; G nomtihła, afternoon ("west in sit")
PH, R -ła, locative case and subordinating suffix (if, when)
SP-M sun win'-nem tlah hen'-te, noon (sun in the middle)
*łah, fall; cf. *ła•, sit
W łaha, to fall; łahma - to fell a tree
PK łah-, ła•-, fall, fell
PR-U łah-, fall
*łal-a, stink, smell rotten
W łala, to stink
N-B Lala, stinking
PCC łala, to rot, spoil
PR-B łalta, rotten
*łaq-a, cover
W łaqa, to cover
PH-B łaka', roof
PR łakpa, to cover something
*łaqa, plant sp.
W łaqas, weed; łalas łaqas, pennyroyal
PCC łaka•, all kinds of tules; K big round tule (bulrush)
PR łaka, łaka•, round tule, bulrush
cf. Mim Ló-kos, big round tule (Callaghan 2001: 324 from Merriam)
*łaqal, play
W łaqal, play; łaqama, play with something
N-S łaqaala, play
PH łakala, to play, gamble
*ła•r, parch
W ła•r, roast; łaral, to be roasted; cf. $\lambda$ ’araq, warm; ła rat, mountain ginseng; sa•ra, sugar pine cones to ripen so that nuts fall out
PCC ła•ri, to parch with coals in basket; K ła•luro, ła•ruro, parch (seeds, pinole in a basket)
PR łari/u, to parch
cf. Alsea ła:7ł-, to cook, boil (Golla 1997: 162)
*łara•q? *łuyu $\cdot q$ ? porcupine; star
W łuyu•q, porcupine quill(s); star(s) (folk-etymology with łu-, stab ?, łu-, egg, seed ?)
N-BP łuyu•q, star
PCC łara•k, porcupine, white flint
PR łara•k, porcupine, star
SP-M 'sar-rahk', star
cf. Alsea łałt, star (Golla 1997: 162)
*łar-čh -u , tie a sling; cf. *law, tendon, sinew
W łarča, to catch with a rope, swing a lasso; łarčus, rope, lasso
PH $\quad \operatorname{art}^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, to tie a knot; łari/u, to lace up
PR łaroho, to tie (up); łat ${ }^{\text {he }}$ •ya, sling

* e , child

W -łe, child, children
N-W łe-ye, little boy (Whistler 1980: 267, identified as Noema dialect)
P mu•łe, male ego's child
SP mułe, son or daughter (Whistler 1980)
*łel-e, weave; cf. *lel-a/i/u, make
*łeles weaving (nominal)
W łEl-, to weave, wind, twine, coil, wrap; łila, to weave (indicative stem); łel, weave (imperative stem); łeles, weaving (nominal stem) (Merriam lists W ch'klel-lis for "twined weave" (twilled) and ${ }^{\text {ch }}$ 'kloi-e for "coiled weave" and comments "not made by Wintu")
N-C hlâp=hlě-lě, tule mat
PH łele', weave, make baskets; k’eni pi łeles, she’s making a basket
PR łele, to weave
*łe-n, brother-in-law (with kinterm absolutive)
*net-łe-(•)n, my brother-in-law
W łe ( $\cdot$ )n, brother-in-law; netłen, my brother-in-law
N-W łe•n, sister's husband, husband's brother
PCC nay-łe $\cdot \mathrm{n}$, my brother's wife, my sister-in-law; K netle $\cdot n{ }^{\text {ch }} \mathrm{u}$, nayłe $\cdot \mathrm{n}$, brother-in-law (wife's brother)
PR łe•n, brother-in-law (husband's brother)
*łes, spirit after leaving body, shadow
W łes, spirit, soul, shade, shadow, devil, ghost (Pitkin 1985: 296 suggests that

N-H łes, shadow, devil; M klěs', spirit or soul after leaving body
PK seł, summer house; H-U se•ł, little willow summer house for shade (metathesis)
PR se•ł, shade
*łet, exhaust, wear out; cf. *leq-č̌ ${ }^{\text {h}}-u$, tired
W łiti $\cdot q$, to be tired, exhausted, get tired; łitiq, tired, bored, sick of $<$ łEt-, be nervous, tremble, shiver
N-BW Letedu-, to shake, shiver
PR łe•t-, wear out (as clothes)
cf. Alsea łtaqw-, to burst (intr.) (Golla 1997: 163)
*łew? *łu- ?, gig, spear
W łu-, stab, pierce, poke; łuča, to stab
PK łew-, gig, spear
PR łew-, poke
cf. Alsea łxwi:- (or tł’wi:-), to spear, łxu:- (or tł’u:-), to force, push; Siuslaw łxau:, spear (n.) (Golla 1997: 163)
*łey-a, throw
W łey, to throw (indicative and imperative stem); łiya, to throw, to throw at, to throw a stone or heavy objects (not other things)
N-S łeya, throw, hit; BW son Le', you are throwing the rock, throw the rock!
PH łey-, to put, set; łeypa, to throw at, hit; k ${ }^{\text {halley, to throw away }}$
PR łey-, put, throw
SP-A glei, put; M ' $k l \bar{a}-a h '$ 'be mem, give me a drink
*łid, throw water
W $\mathrm{f} \cdot \mathrm{da}$, to throw water on the fire
PK łiduro, to sprinkle

* fik-u-p'ur-i, to fight (with reciprocal)

W łikup'ure, to fight (each other); łikup'uri (nominal form); cf. łixča, to bother someone
N-S tihkupa, fight
SP-M ${ }^{\text {ch }}$ 'leb-bah'-per-re, war
*łim-a, cave in; cf. *lim, fade away
W Tel-łimal, to be caved in, be demolished, bashed in, bent in
N-BW Limalna-, be sorry, feel bad ("cave oneself in")
PCC łi maho, to faint
*łiniq, snot
*łi•n-, blow the nose
W łi( $\cdot$ niq, nasal mucus; łiniqa, to blow the nose; sono $\mathfrak{\text { li }}$ na, to blow the nose
PH, R łinik, nose
PR łi•no, blow the nose
Sound-symbolic, with resemblant forms in other languages
*łob, bubble
W łub-, bubble, boil, simmer, rise and fall, of moving things (cf. łum, bubble up, splash, *łO, spot; łu, egg)
PK łobi, bubble; łobłobta, bubbling
*łom-, fisher ?; cf. *łom-i/u, put up
W łomu $\cdot \mathrm{s}$, rat, woodrat, mountain rat, mole
N-M schlo'-mé $t$ t, marten (Mustela caurina); C hlá-mět, fisher
PK-M shook klum'-me, fisher
*łom-i/u, put up; cf. *łom-, fisher ?
W łOm-, łuma', to add to, fill a plate or pipe, fill something in order to boil, to put something up to cook; cf. łome•, to be in the middle
N-BW kLomana-, to hide
PCC łomi/u-, put away, hide, save, store; K łomi/u, put away
PR łomu, put
*łon, snore
*łon-or-, sound bee-like
W łunura, to purr, have the sound of waterfall hitting the water at the bottom; ?ołonoq, bull hornet
N-BW Lona-, snore
PCC ło•no, snoring; all kinds of bees, honeybee; łonoroho, to growl (dog, bear); K ło no, name for bees, wasps all together; honeybee; ło n -, to snore
PR ło no, bee; łonoroho, to growl
cf. Alsea łnaq’w-, snore (Golla 1997: 162)
*łono(•)q, mollusk shell; cf. *łob, bubble
W łono $\cdot q$, olivella shell beads, olivella shell necklace; cf. siwi•łonoq, testicles, perhaps from łOn-, drooping; łanoq, earring; cf. *łO, spot, bubble, foam, boil, pimple, round, spherical
N-G łônôk, earrings
PT $\quad$ oło $(\cdot) \mathrm{k}$, sea-shell, shell of snail
*łos, foam
*łoł-, to foam
W łos, foam, saliva; qo•l łoło•ruma•, mouth to foam; ło•sa, to launder; ło•sis, ło sas, soap; łoso, wave crest
N-S łoca, wash; BP łohča, to wash; BW Loca-, wash
PK łoła•k, foam, bubbles, lather; cf. H-B ło•yak, foam
PR łos, foam on the water
*ło (•)y, weave, make a net; cf. *łoy...m, grapevine
*ło( $\cdot$ )yo-s, weaving, web
W ło yos, net, apron, weaving; łoyna, to cover oneself with a net-like cover (as a caterpillar making a cocoon); č’e $\cdot \mathrm{k}$ łoyos, type of net (č’e $\cdot \mathrm{k}=$ rope $)$

PCC łoyo•, spider web; ło•yomen, spider (Whistler 1976e from Merriam); K ło•yo, kerek ło•yus, spider web
PR-B łoyow, spider web
*łoy...m, grapevine; cf. *ło(•)y, weave, make a net
W łoymi, grapevine ( $\mathrm{mi}=$ tree, brush)
PCC ło yam, grapevine (the whole plant); K łoyom, grapevine
PR łoyam, wild grapevine
*łubuq, soft round plant sp. ? cf. *łupuq, thin, loose; *łup-e/u, drink/eat acorn mush with fingers; * $\lambda$ 'op, *łop, tule, bulrush
N-G łuxpux, ground creeper with red blooms and fine black seeds (redmaids ?)
PCC, C łubukmen, mushroom sp. (black inside)
cf. W łOb-, eat (eat round objects ?); cf. *łO, spot; łubeq, little round lake; $\lambda$ ’ub-, suck
*łup-e/u, drink/eat acorn mush with fingers; cf. *łubuq, soft round plant sp.?, *łupuq, thin, loose
*łupu-s, drinking/eating acorn soup (nominal)
*łupu $\cdot \mathrm{q}-\mathrm{i} / \mathrm{u}$, slurp
W łupe, to eat acorn mush with fingers; łupaq, eat (something) with acorn soup; łupus, eating, of acorn soup; łupu $\cdot q-a / i / u$, suck
N-G khlup, sacred broth or porridge of roasted buckeyes boiled in sand pools with hot stones; J clu pus, soup
PCC łup-, to drink soup; yiwitma łupus pi, he’s drinking acorn soup
PK łubu $\cdot \mathrm{ki} / \mathrm{u}$, sip slowly; łupta, drinking acorn soup
PR łupu-, drink acorn soup; ču yiwitma łupus, I'm drinking acorn soup
SP-M ${ }^{\text {ch }}$ loo'-běh, acorn mush
cf. Northern Sierra Miwok nyp•a, to make acorn mushy, to make something into acorn mush, acorn mush, acorn soup (Callaghan 1987: 171); PMy *lo?, *lo?(b'), with reflexes including: eat eggs or fruit, eat something (soft things), fruit, remains of something eaten, and other similar meanings; Maidu lôp, gobble something soupy with the hands; Lake Miwok łúb-, to slurp; Klamath ło:b’, eat (soup); Choctaw lạbbi, to eat with the fingers; cf. also PMy *lu(b'), with reflexes including: soften, dampen, wet, watery, not firm, made soft by water (a road or river bank); Mam lu?č, soft: fruit rinds or egg shells (all from Brown 1990: 26, 48)
*łupuq, thin, loose; cf. *łubuq, soft round plant sp. ?; *łup-e/u, drink/eat acorn mush with fingers
W łub, be thin, watery (batter, liquids) (cf. łub, bubble, simmer); łubu•ya, to get watery, of fruit when rotting, to be too thin, of something liquid (i.e., to be fermenting, bubbling); cf. łulel, to be spoiled; łal, stink; łułal, be caved in
PCC łupuku, soft, loose
*łu•t, dance house; cf. *ła•, sit
W łu•t, semi-subterranean big dancehouse, sweathouse, earthlodge

N-BP łut, dance house; K Lut, earth-covered (dance) house
PCC łu•t, sweathouse (big dancehouse); K łut, łu•t, dancehouse
SP-M 's'oot, soo-'klā, ceremonial house
Howard Berman (personal communication, 2003) suggests that *łu•t may be derived from *ła', sit, comparing Yokuts $t^{\text {h }} \mathrm{i}$ ?, house and Central Sierra Miwok ṭo?ye-, to sit

## m

*-m, dubitative, subjunctive (424.3); see *beyem under *bey and *bo m under *boh
W -m, dubitative suffix (doubt, interrogation of second persons; absence of any evidence which could provide a degree of certainty; marks declarative statements of slight doubt or weak interrogation; more recently a third person subject marker)
PH $\quad-\mathrm{m} /-\mathrm{mu}$, general subjunctive mood marker, with special uses as negative and purposive; -m?a/-mu?a, evidential "must be that"; -m?u/-mu?u, negative (Whistler 1978); -m/-mu, unmarked tense, quotative mode; -m, subjunctive; $-\mathrm{mPa} /-\mathrm{muPa}$, confident inference (with auxiliary -?a, have) (Whistler 1986)
PCC hase ba•m, let's go eat
PR mipel ba $\cdot \mathrm{m}$, did you (two) eat ?; mi ba $\cdot \mathrm{m}$, did you eat ?
cf. PMy *ma.., negative (Brown 1990: 58)
*-m, inanimate comitative (423.32); e.g., see *dek-m, climb something (under *dek, step, climb); cf. *-ma, causative
W $\quad-m$, generic comitative suffix (indicates that the verb has a syntactic object in the generic aspect, which may or may not be overtly expressed; frequently translated as "with" or "while doing something")
PC -me, valence-changing suffix, "with" (Whistler 1977, 1978); CC -me, comitative (Whistler 1981)
*ma-, *mi-, second person pronominal root (531.13); see: *ma-le-no, *ma-t, *ma-to, *mi, *mi-le ?, *mi-le-t ?, *mi-pel, *mi-pele-no ?, *mi-pele-t ?, *mis
W ma-, mi-, me-, second person pronominal root
N ma-, mi-, me-, mo-, second person pronominal root
P ma-, mi-, second person pronominal root
*-ma, objective case (512.21); cf. *-ma, causative; *-ma, suffix marking naturally paired objects; *mal-i/u, make
W -m, -um, objective case
N-BW yEcam, name (obj.)
PH -ma, animate objective case
PR -ma, objective case
*-ma, causative (423.33); cf. *-m, inanimate comitative; *-ma, suffix marking naturally paired objects; *mal-i/u, make; *?u-ma, thus (under *?u)
W $\quad-\mathrm{m}$, causative suffix (followed by indicative stem formant $-\mathrm{a} \cdot$ )
PH -ma, causative
cf. PMy *um, with reflexes including: first cause, original motive, infix equivalent to cause of, motive of; by, because of, on account of, cause, fault (agentive suffix), as a result of (Brown 1990: 49)
*-ma, suffix marking naturally paired objects (511.3); cf. *-ma, causative; *-ma, objective case; *may, foot
W haqam, elbows (dual); cf. haqa, ankle, elbow $<$ *haq, jointed (as of elbow or ankle); -m, generic aspect
P -ma, suffix marking naturally or conventionally paired objects (Whistler 1980: 256; e.g., sa•-ma, eyes; dam-ma, pair of gambling bones)
*made ? *mude ? mushroom sp.
N-G mi mude, mushroom sp.; kitmude, mushroom sp.
PK made, edible wild mushroom sp.
PT bade, toadstool? (Whistler 1976e from Radin)
*ma-le•no, second person plural alienable possessive
W male $\cdot \mathrm{n}$, second person plural alienable possessive particular aspect
PH-U male•nomin, second person plural alienable possessive animate possessed
PT mile-nomin, second person plural alienable possessive animate possessed
PCC, T mile•no, second person plural alienable possessive inanimate possessed
PCC, T, R male•no, second person plural alienable possessive inanimate possessed
cf. Klamath ma:l'm, 2 pl. genitive (DeLancey 1987: 462)
*mal-i/u, make; cf. *-ma, causative; *-ma, objective case
W mala , to make; mali, nominal stem; malu-, imperative stem
N-BW mali-, make
PH, R mali/u, to doctor
*ma•-a, bake
*ma•ła-s, nominal form
W ma•ła, to make patties, make bread; ma•f(as), patty, patties
N-BW maLa, bread
PCC mała, to bake
PR-U ma•ła-, to bake; małas, bake bread
*man-a', miss; cf. *min-a, be nothing
W mana $\cdot$, to miss (the mark), guess wrong
N-BW manay-, miss, be off, wrong (may be borrowed from P)
PCC, R mana•yi/u, to miss; K maya•yi/u, to make a mistake
cf. Alsea man'-, min-, to fall short, to fail (Golla 1997: 163); Northern Yana and
Yahi mal-..?a, to fail to hit, to shoot at and miss (Sapir \& Swadesh 1960: 121);
Northern Yana malla-, absent for a long time (ibid., p. 122)
*ma-t, second person singular inalienable possessive
W mat, second person singular inalienable possessive
N-BW ma-, second person singular inalienable possessive
PCC ma-, second person singular inalienable possessive
PCC, R mat-, second person singular inalienable possessive
SP-M mah, your
cf. PM *mi-, you sg., PMi *mi(•), thou, PCo *me( $\cdot$ ), thou, PY *ma-?, thou; PY *man', *min, your sg., *manan, your pl., PU *mi•ny, me•ny, thy (Callaghan 2001: 328)
*ma•t, ear; cf. *mut-u, hear
W ma•t, ear
N-W ma•t, ear
PH, R mat, ma•t, ear
*ma-t-o, second person singular alienable possessive
W mato, second person singular alienable possessive
N-W mota, second person singular alienable possessive inanimate possessed; BW mohto
PCC, K mato, second person singular alienable possessive inanimate possessed
PK, CC matomin, second person singular alienable possessive animate possessed
PR matono, second person singular alienable possessive inanimate possessed
SP-M mo'-to, your
*may, foot
*may-a•, follow, track
W mah (p), may (g), foot; may, feet, tracks; mayuma•, to show, demonstrate, direct, teach, give directions
N-J mat, foot; M mi'-e, tracks; BW may-, chase, go after, go with; cf. N-S nismay, with (= me-following ?)
PH, R may, foot; maya , to track
SP-V mainodv. ${ }^{\prime} \mathrm{k}^{\mathrm{c}}$, toes
*me(•)m, water
W me( $\cdot$ )m, water
N-BP mem, water
PH, R me(•)m, water
SP-A mem, water
*men, thing (511.4)
W -me, own, type, kind, variety; -men (g), -met (p); cf. *mE, deictic; *m, classifier
PCC -men, thing
*mi, tree
W $\quad \operatorname{mi}(\cdot)$, tree
N-B mí, tree
PR mi, tree
SP-M me'', tree
cf. Molala ma•s, fir tree (Berman 1996: 15)
*mi, second person singular subjective
W mi, second person singular subjective
$\mathrm{N}-\mathrm{W} \quad \mathrm{mi}$, second person singular subjective
PCC, R mi, second person singular subjective
cf. PM *mi-, you sg., PMi *mi(•), thou, PCo *me(•), thou, PY *man', *min, your sg.,
PU *mi ny, me•ny, thy (Callaghan 2001: 328); Klamath mi, 2 sg. genitive (DeLancey 1987: 462)
*mi-le ? *ma-le ?, second person plural subjective
W mite, second person plural subjective, neutral as to aspect male $\cdot \mathrm{t}$, second person plural subjective particular aspect
PCC, K, R mile, second person plural subjective
SP-A mile, you pl.
*mi-le-t ? *ma-le-t ?, second person plural objective
W male•t, second person plural subjective particular aspect male•tp'urum, second person plural objective particular aspect
PK mile•t, second person plural objective
*min-a, be nothing; cf. *man-a', miss
*min-čh -u -, to turn into nothing
*men-a, unspecified ?
W min-, die, dead; $-\min (a)$, negative suffix; minčuna•, for a loved one to die, to die on someone
N-BW -mena, possibility that something will happen: might, may, perhaps it will be; implies future time
PCC mina•, to extinguish; mint ${ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, dark, fire to go out; K me na, alone, nothing, something unspecified, anyway
PR-B me-na-lew, ordinary grass
cf. Alsea man'-, min-, to fall short, to fail (Golla 1997: 163); Maidu and Nisenan
-men, negative suffix (Berman 1983: 407)
*mi-pel, second person dual subjective
W me•l, second person dual subjective, neutral as to aspect
$\mathrm{N}-\mathrm{W}$ me•l-palel, second person dual subjective; BW mEl, you two
PK, R mipel, second person dual subjective
SP-A mip'-pel, you two
*mi-pele-no ? *ma-pele-no ? second person dual alienable possessive
W ma•len, second person dual alienable possessive particular aspect me•lelen, ma•lelun, second person dual alienable possessive generic aspect
PR mapelenomin, mapelemin, second person dual alienable possessive animate possessed
mapeleno, mapelno, second person dual alienable possessive inanimate possessed
PH mipelnomin, second person dual alienable possessive animate possessed; mipelno, second person dual alienable possessive inanimate possessed
*mi-pele-t ? *ma-pele-t ? second person dual objective
W ma•let, second person dual subjective particular
PK mipelet, second person dual objective
PR mipet, second person dual objective
*mis, second person singular objective
W mis, second person singular objective
N-BW mis, second person singular objective
PR mis, second person singular objective
cf. Klamath mis, 2 sg. object (DeLancey 1987: 463)
*mit, *mut ?, cover
W panti mituna , to cover oneself with something; ?ol-mite, to put something up on something
PCC mutthupas, to cover up with
PR-B mot ${ }^{\text {h }}$ opa, to cover
*molo, short version of
W $\quad$ *mO, short: mu•la, (to be) short, be without ears, short as to nose, be very short; molika, to be bobbed, shortened
PK molok, picture, petroglyph, doll
*mo•loq, California condor
W mo•loq, bald eagle, white eagle
N-G molok, California condor
PH, R mo•lok, condor
SP-M mo'-luk, mowl'-luk, Calif. condor
cf. Northern Sierra Miwok mol•ok-u-, eagle, C. Hart Merriam gives 'California condor' (Callaghan 1987: 154); Whistler 1977a suggests that the P forms are borrowed from Miwok, citing PMis *mol ok, condor. If this is the case, the loan extends across Wintun.
*moł, willow sp.
W moł, willow; also edible greens
N-M mŏs" ${ }^{\prime \prime}$, mos, willow
PCC,TT moł, big, brittle willow sp. (S. goodingii?)
*mon, juniper
N-M mun', juniper (Juniperus)
PH, R mon, juniper berries
cf. PK, TT-M monmon, McNab cypress ?, borrowed from Miwok (Whistler 1976e); Northern Sierra Miwok mo•nok-u-, cedar tree, incense cedar (Callaghan 1987: 155); Lake Miwok mónmon, a type of cedar, probably incense cedar (Callaghan 1965: 96)
Whistler 1977a suggests that the P forms are borrowed from Miwok, citing PMi *mo $n$, incense cedar. If this is the case, N would have borrowed from P or directly from Miwok, or P could have received its loan via N .
*moq, straighten up, fix up
W moqos, arrow straightener; muqas kerumada, I straighten arrows
N-C máh-kâ, arrow-straightener
PCC moknan, to fix oneself up, dress up; K mo•ke, big eagle or hawk feather coat
PR mo ki, large feather cloak; B clown in dances
cf. Alsea mi:kw-a, arrow shaft (Golla 1997: 163)
*mo•r, tamarack pine (a variety of lodgepole) ?; cf. *moy, seed
W mo•ri, tamarack (a larch sp.)
PK mora thok, knobcone pine ? Douglas fir ? tamarack pine ? variety of lodgepole
*moroq, move
*mormor (iterative)
W moroq, alive, move; mormoroq, (plural subjects) to be alive, to move, many to move, to quiver (as with life)
N-B pōmōko, earthquake [po•m mo.qo]
PK mormo ruro, itch
PCC mołok, to move
PR-B mołok, to move
The correspondence of W and Nr to PCC and PR $\ddagger$ is irregular and perhaps due to symbolism.
*moy, *muy, bend
W se-muyča, to bend around, of something pliable like copper wire; moyi $\cdot y a$, to smile; pantimoy, bone behind upper teeth and lip
PCC moyi/u, angry; K moy?aro, mad, in a rage; moyup'iriwin, fighter, warrior; PA-U muy?a-, cranky
*moy, seed ? cf. *mo r, tamarack pine
W moy?olo $\cdot q$, moy Roloq, tomato (analysis uncertain, but perhaps containing moy, "seeds"); cf. morit, pine seeds (Du Bois 1935: 115)
PK-M moyek, seedling conifer (Whistler 1976e); PTT mo•ye, seedling conifer ? (Whistler 1976e)
*mu( $\cdot \mathrm{k}$-u, turtle-shell shaped
W mu( $\cdot$ )k-, turtle-shell shaped object, to cover with a turtle-shell shaped object; muku-, imperative stem
PCC $\mathrm{mu} \cdot \mathrm{ki} / \mathrm{u}$, to lie on one's stomach
*munuq, sweet
W munuq, sweet
N-B mōnūka, sweet
PK munuk, be sweet, honey, nectar
cf. Molala mumu:s, fly (Berman 1996: 12); PUA *mumu, *meme, bee
*mut-u, hear; cf. *ma•t, ear
W mute, mutu-, hear, sense, perceive, understand, feel
N-S muta, hear
PH, R mutu-, hear
*mut-her, non-visual sensorial evidential ( $<$ *mut, hear + *her, passive)
W -nt ${ }^{\text {h }}$ er, non-visual sensorial evidential
PCC $-m t^{h} e r,-m u t^{h} e r$, tentative inference; implied sufficient grounds for certain knowledge; might (Whistler 1986: 69); indicates uncertain knowledge, an opinion rather than a claim of fact, or an assumption based on tenuous evidence rather than certain knowledge; translates as: I think ..., it looks like ..., might (Whistler 1986: 71); cf. -mte, -mute, tentative inference (?), morphological variant of $-\mathrm{mt}^{\mathrm{h}} \mathrm{er} /-\mathrm{mut}^{\mathrm{h}}$ er restricted to clauses in the irrealis mode, indicates assertion based on inference of circumstantial evidence but not direct knowledge; lacks the passive element -her (Whistler 1986: 72); cf. mut, to feel, auxiliary base of personal affect

## n

*-n ? *-no ?, genitive case, marks alienable possessive and subordinate subjects (512.22, 531.35)

W -n, -un, genitive case; -tun, emphatic possessive
P -no, alienable possessive (inan. possessed); -nomin, alienable possessive (an. possessed)
SP-M che-lo'-no hek-ke, rabbit-skin blanket [with -no, possessive]. SP-A tiuncuhui and SP-G tiunsupui, eyelash, may contain a possessive -un identical to the W suffix; however the analysis of these forms is uncertain
cf. PU *-ny, *-yn ? (after consonant), *-n ? (after vowel); PY *-in, genitive case (Callaghan 2003: 73); Berman (1983: 402) reconstructed Proto-California Penutian possessive *-n (with vowel stems)/*-ən (with consonant stems)
*-( $\cdot$ )n, kinterm absolutive suffix (520.); cf. *-na, reflexive
See: *łe-(•)n, brother-in-law; *ne-(•)n, mother; *ta-n, father; *p’oq, woman, wife; *?apa-n, grandfather; *?ama-n, grandmother; *labe-n, older brother

W $\quad-(\cdot)$ n, kinterm absolutive suffix (unproductive)
P $\quad-\cdot n$, kinterm absolutive suffix (Whistler 1980: 201-203)
*-na, reflexive; also *-na• ? (possibly analyzable as *-n-a, *-n-a ?) (423.34)
W -n, reflexive (followed by indicative stem formant -a or $-\mathrm{a} \cdot$ ); cf. *na, trust, real, actual; ni, first person pronoun
PH, R -na, reflexive
*na, *nah ?, mother; cf. *neh, mother, *ne-• n, mother
N-W -na(h), mother; Noema dialect nahan, mother; T-M me'-nah, mother (addressed); cf. tahan, father under *ta-( $\cdot$ ) n
PH-U na $\cdot k^{\mathrm{h}}$ e, mama (voc.); H-B nak ${ }^{\mathrm{h}} \mathrm{u}$, mother; A-U ?uwe na', oh, mother (voc.)
PR nak $u$, mother (voc.)
SP-A, G na, mother
Since the form is not attested in W, the N forms could be borrowed from P or vice versa
*nal ? *wal ?, lick (277.); cf. *wal-u, flame, lightning
W walikna', animal to lick itself; sem walikna•, to lick one's fingers; cf. t'elik, to lick; Pel-t'alikta, to taste
N-BW nal'-, nel'-, lick
PCC nala•ko, to take a taste of; K nal-, na•l-, lick
PR nal-, lick
*nam, through to the last
W nam-, all together, thoroughly (namal, to all get together in an action; namča, to go through a series to the end, to enumerate all)
PCC na•me, last time
*naq, relational locative; cf. *naq, navel
W naq, (measure, quantity) be just that far, just so full, high; naqta, filled, to fill
PH-U ?eteknak, side of die with the number one on it ["one-side"]
PR pinak, from there, from that side; sunak, from here, from my side
SP-M hen'-nok me hen'-ně, where did you come from? [demonstrative/ interrogative - side you come]
*naq, navel; cf. *naq, relational locative
W naq, navel, umbilicus; naqkenti, belly, the part between the navel and the pelvis ("navel-below")
N-BW nakdapi, belly button
PK nak, navel; cf. daka, belly
PR-B nak, nakar, navel
cf. Mk naka, navel (Callaghan 2001: 321 citing Dixon \& Kroeber)
*naw, robe; cf. *haw-a $\cdot 1$, wrap around
W naw, robed, clothed, dressed, of leather to be tanned, therefore clinging, of buckskin, a dress (nawal, to be clinging, or form-moulding, of a dress; to be tanned, of buckskin; te•rek nawal, the buckskin is tanned, i.e., it does not stand out stiffly when worn); cf. haw-, coil, lasso, coil rope, round, around, wrap around
PK nawakta, soft; cf. hawa $\cdot 1$, rabbit skin
*ne- (also *ni- ?), first person pronominal root (531.11)
See: *ne-pel, *ne-pele-no,*ne-pele-t, *ne-r, *ne-t
W ne-, ni-, first person pronominal root
N ne-, ni-, first person pronominal root
P ne-, na-, first person pronominal root
*neh, mother; cf. *na, *nah ?, mother; *ne•-n, mother
W ne•h, ne•t (p); ne•n (g), mother; net-nen, net-ne•h, my mother
PCC nehe', mother (voc., one's own); neh, mamma (voc., used by kids?)
*ne•-n, mother; cf. *na, *nah ?, mother; *neh, mother
*ma-ne- $\cdot \mathrm{n}$, your mother
W ne•n (g), mother; cf. ne•neh, mother's sister; nen, female cross-cousin, aunt, great aunt, stepmother; nene, aunt, cousin; neneh, aunt, auntie, great aunt, stepmother, female first cousin, female cross-cousin only; nene•, reciprocal term between female first cousins
$\mathrm{N}-\mathrm{H}$ mane $\cdot \mathrm{n}$, [your] mother
N-W ne•n, mother
PCC ne•nču, my mother; mane•n, mani•n, your mother; K no•p ne•n, doe (deer mother); ne•nč ${ }^{h} u$, mother (address)
PR ne•n, mother
SP-M nan'-choo, (my) mother; G nenchu, my mother
cf. Molala $p\left({ }^{h}\right)$ nän, mother (with kinterm prefix) (Berman 1996: 10)
*ne-pel, first person dual subjective
W ne•l, first person dual subjective (neutral as to aspect)
N-BW nEl, first person dual subjective; W ne•la ?
PK, R nepel, first person dual subjective
*ne-pele-no, first person dual possessive
W ne-len, first person dual possessive particular aspect
PH-U nepelnomin, first person dual alienable possessive animate possessed
PR nepeleno, ours (inan. poss.)
nepelenomin, nepelemin, first person dual alienable possessive animate possessed
*ne-pele-t, first person dual objective
W ne•let, first person dual objective particular aspect

PK nepelet ("preferred over nepet"), first person dual objective
PR nepe•t, first person dual objective
*ne-r, first person singular genitive
W ner, first person singular genitive
PCC, K, R nay, first person singular inalienable possessive and genitive
*ne•r, alike; cf. *ney, alone; *ne--n, mother
W ne•r, like, identical, alike, (also: imitate ?); cf. *nE, deictic
PH-B ne•re, to imitate
PR-B ne $\cdot$, to imitate; U nerta, mock
*nes, sturgeon
W niswih, steelhead salmon
$\mathrm{N}-\mathrm{C}$ něs, sturgeon
PH, R ne•s, sturgeon
SP-M nă-ă, sturgeon
*ne-t, first person singular inalienable possessive
W net-, first person singular inalienable possessive
N-W ne(•)t, first person singular inalienable possessive
PK net-, first person singular inalienable possessive (as in netłe•nčh $u$, my brother-in-law, my wife's brother, also nayłe•n)
*ney, alone ?; cf. *ne•r, alike
W-M ne'-o-hă-dah, lonesome
PCC ne•yi, don't get anything at hunting, animals stay away
The analysis of Merriam's W form is very uncertain. It may or may not contain neyo, cognate with P ne•yi.
*n(i)-, kinterm prefix resulting from metanalysis of first person possessive
W niča $(\cdot) \mathrm{y}$, grandson, niča $(\cdot)$ men, niece, granddaughter (vocatives minčay, yenčay, niča $\cdot m e n$, yenčamen)
PH nik'an, co-spouse (Whistler 1980: 265)
*nił-u, holler
W niłe, to scream, shout, holler, give a warhoop
PCC niłi/u, scare away, flush out
*no-, arrow
W no•t, arrow(head)
N-M nawt', arrow
PH nok'o, arrow
PR nok'o, arrowhead
The P forms may be borrowed from Maidu; cf. PM *nok', arrow (Callaghan 2001: 322)
*noł, to bark
W nOł-, to bark
PH, R noł-, to bark
*nom, west
*nom-el, *nom-el-ti (with locatives)
W nom, west; nome $\cdot 1$, west uphill; nomelti, west across canyon or river
N-BW nom, west; nomelte', a little ways west; nomtipom, Covelo
PCC nom, west; nome•l, west, way over west, far off to the west; K nom, west
PR nom, west (close by); nomel, west (farther away)
SP-M no-mel'-te, west
*non, *nun, pronged, joined
W nOn, prongs, pronged, join, joint; ?el-nonči, joint (of human body or objects); ?el-nunalas, joint of the body; noni, prongs of spear
N-B nōní, knee
PH, R nun, bow, gun
SP-M noon', bow
*no p, deer, venison
W no•p, deer, venison
N-W no•p, deer; BW deer, meat
PH, R no• p, deer, meat
*noq-i/u, ripe
*noq-u-ma, make ripe
W nOq- (nuqa $\cdot$, noq-i/u), be ripe, ripen; noquma $\cdot$, cause to ripen
PH noki/u, ripe; nokuma-, cook
PR nok ${ }^{\text {h }}$-, ripen, get cooked
SP-M nuk'-ke, cooked, ripe
*nor, south
*nor-el, *nor-el-ti (with locatives)
W nor, south; nore $\cdot 1$, no•lti ( $<$ *nore $\cdot 1$ ti), southward across river or canyon
N-G noy, south
PH wor, south (initial C changed under the influence of "north," see *way)
PR wor, south; worel, south
SP-M war-rel'-te, south; A huori, south
*nuh, boat
W nuhdoli, raft; lit. boat-tied
PH-B nu; balsa, tule boat
PR nu'h, boat, tule raft
SP-M noo', boat (bundles of tules)
cf. Mil nú•h, boat (Callahan 2001: 322 suggest that this is "most probably a Patwin loan word"; she also compares Northern Maidun nö, boat, from Dixon \& Kroeber)
*nup-u, dive (272.)
*nup-u-s, diver
*nupnup, iterative
W nupe, to dive; nupu-, imperative and nominal stem; nupustopit, diver; nupnupe, many to dive
PH, R hupu, to dive; R-U ču huphupuhtu, I'm a diver; K hupusmen, hell-diver, grebe
Irregular $\mathrm{n} / \mathrm{h}$ correspondence
*nu•q, smoke (273.)
W nu•q, smoke; nu•qa, to smoke (intr.)
N-S nuuq, smoke
PR mo•k-, smoke
SP-M nook', smoke (This appears in Merriam's comparative list only and is very difficult to read; it could be mook'. However, he would have written "mok" to represent $[\mathrm{mo} \cdot \mathrm{k}]$. As his "oo" is clearly $\mathrm{u} \cdot$, nu $\cdot \mathrm{k}$ is probably correct. This still leaves the PR m unexplained.)
*nur, salmon (272.)
W nu(•)r, salmon
N-B nūt, salmon; J nu rut, salmon
PH, R hur, salmon
SP-M hoor", salmon
Irregular $\mathrm{n} / \mathrm{h}$ correspondence - cf. PCo *(h)u raka, salmon (Callaghan 2001: 333); Alsea nu:ns-, to eat; nu:ns, elk (meat) (perhaps basically nu:nu:s- and reduplicated from original *nu:s-) (Golla 1997: 163); cf. PW *no•p, deer, venison

## 0

*-o, suffix forming alienable possessive first and second person pronouns (531.35)
W -o, independent pronoun suffix marking alienable possession (neto, my, mine; mato, your, yours) and emphatic (niyo, I; piyo, he/she/it); cf. yo, vocative particle
$\mathrm{N} \quad-\mathrm{o}$, first person singular alienable possessive suffix (occurs only in neto, first person, singular alienable possessive pronoun inanimate possesssed, and Teto, third person proximal alienable possessive inanimate possessed, but originally also in *mato, second person singular alienable possessive inanimate possessed, which has been metathesized to mota)
P -o, second person singular alienable possessive suffix (mato (H), matono (R), your, second person singular alienable possessive inanimate possessed; matomin, your, second person singular alienable possessive animate possessed)

## p

*-pa ? *-paq ? benefactive (423.35)
W -paq, personal transitivizer ("we bought it for him," "chase him")
N-BW -pak, encouraging or commanding suffix (pi leaqapak, talk to him; macet c'aawpak, sing for your grandson)
N-G si•pa, vulgar word for sexual intercourse ( $<$ *siripa, with benefactive)
PH -pa, benefactive
SP-M mem har'-pah, go get water
*pał-, crush; cf. *paq, bone
W pała, to pound meat, fish or potatoes, to crush or mash acorns, to crush anything with stones
NT-M pah'-che, marrow; B paLī, meat
SP-M pah'ch-le, marrow
*pan (also *pal ?), two; cf. *pel, dual; *pano(•)f, three
W pa•lel, two ( $<* *$ pan-lel ?); cf. pam, empty-handed; pan, move (step with two feet)
W-M pin'-nel poo're, double
N-G pale, two; B, S palel; J pat tem; M pal-lem pum, twice
PCC pampata, two ( $<$ *panpata); K papata, two; panomo, Tuesday
PR pampata, two; pampasan, two months
SP-M pah-poh'-tah, pah-pah'-tah, two; pah-pah too we'-tah, two men; A papasem, ten [two hands]
cf. PY *poyij, two, PM *pe•ne, two (Callaghan 2001: 329)
*pano(•)ł, three; cf. *pan (also *pal ?), two
W panu $(\cdot) \nmid$, three (Pitkin distinguishes panuł, three; panu $\cdot \neq$, several, many)
N-B panōL, three, twelve, eighteen
PCC pono(•)łta, three; K ponołta
PR ponołta, three
SP-M po-nōs'-tah, three; V pono'lta, three; ponoLsem, fifteen (three fives)
cf. Alsea (Buckley 1988:18) psinłx, three
*pan-ti, top; cf. *-ti, directional locative
W panti, (on) top, over, on (cf. pan-, move, -ti, directional)
N-J pen ti, on top; M pahs-pahn'-te, Red Bluff ("cliff top on")
PH, R panti, up, on top of; also H pan-, on top of (Whistler 1977); (also tan; e.g. na•no duł tanwen, top of my head; na'no kewel tanwen, top of my house (possibly dissimilation $\mathrm{p}>\mathrm{t} / \mathrm{w}$, but see also $\mathrm{p}>\mathrm{t}$ under *par, full; P also has a locative suffix -pa)
cf. PUA *pan, high (means "on top" in some daughter languages)
*paq, bone
*paq-?a, to be hard
*paq-a-ma (*paq-7a-ma ?), make hard
W paq, bone; paqa , to be hard; paqama $\cdot$, to made hard, make stiff
$\mathrm{N}-\mathrm{S}$ paq, bone; cf. c'anpaqna, yellow (rust color) "like bone" ?
PCC pak, bone; pak7a, hard; pak7ama, to tighten something up; K pak, ${ }^{\mathrm{h}} \mathrm{ak}$, bone; p'ak?a-, be hard
PR pak, bone fishhook; pak?a, hard
SP-M pahk', bone, bone awl used in basketry
*paq-i, dam, weir
W paqa•, to build a dam; paqi, bridge, dam; cf. puqe, to trap; M po'-kě, snare
N-C pá-ku, fish weir
PK paki, fish trap, a net with rocks at the side weighting it down; H-U pako•, bridge
*par, full (274.)
*paro-ma, *paru-ma ?, fill
W para•, to be full; paruma $\cdot$, to fill
N-M pah-yahk', full
PH paro--, to be full; K paroma, fill; CC paro•ma, fill up
PR taroho, fill up; taralta, it's full
*pat, out(side) (prefix and independent word) (422.2)
W pat, out, outside (prefix and independent word) (*pat, outer non-core; cf.
pani $\cdot \mathrm{k}$-, encircle; pali, wrapped, bundled up)
N-BW pat, out, outside
PH, R pat, outside (prefix and independent word)
SP-M paht, out
cf. PMy *pa: $\mathrm{t}^{\mathrm{y}}$, with reflexes including: outside, back of the body or of an object or outer side of, underside, the outside, a side of exposed surface, back, behind, outside the house, behind the house, outside the fence, and other related meanings (Brown 1990: 29)
*pate, mountain lion
W pate (g), mountain lion
PH, R pate, mountain lion
*pa•tpat, flat tule, cattail
N-M paht'-paht-too, flat tule or cat-tail (Typha latifolia)
PCC pa•tpat, flat cattails; $K$ flat tule, cattails
PR pa•tpat, the head (fluff part) of a cattail, also the whole plant
cf. Mil pátpat, cattail, flat tule (Callahan 2001: 325 suggests that this is probably a loan word from Hill Patwin; she also compares Ykr patak, tule, Yv poton, tule)
*payi $\cdot \not$, seed plant sp.
N-C pa•ł, upright bush with fine pods (< *payi•); cf. W pał-, pound, crush
PH payi $\because$, seed plant sp. with (yellow ?) flowers
*-pel, dual (531.21); cf. *pan (also *pal ?), two
See: *nepelet; *nepel; *nepeleno; *mipel; *mipeleno ?, *mapeleno ?; *mipelet ?,
*mapelet ?; *pipel; *pupeleno; *pupelet; *?ewpel, *?ewpalel ?; *?ewpelet
*pene $(\cdot) 1$, black oak acorn
W penel (g), peneł (p), black oak acorn(s)
N-W pene•l Tiw, black mountain acorns
PCC pene•l, Quercus kelloggii acorn; K mountain acorn
cf. Alsea pu:la, oak (Golla 1997: 163); Lake Miwok penéel, iron oak (Callaghan 1965: 108)
*per-i/u, swallow
*ber-e, be hungry, starve
*peru•, throat, esophagus
W pira $\cdot$, peri/u-, to swallow, be hungry, starve; peru•s, throat, esophagus, back of tongue; bira $\cdot$, to be hungry, crave, starve ( $<* \mathrm{bEr}$, starve $)$; berem, hunger, starving
PCC peru•, throat; berečh oyi-, be hungry (swallow want); K peru-, swallow; peru•, throat, esophagus; bera?aro, be hungry; berečheri/u-, starve [with passive]
PR peri/u-, swallow; bere?č ${ }^{\text {h }}$ oyi-, be hungry
SP-M choo ber'-rā ă-bo-te, I am hungry
*pes, doorway, entrance
W pes, door(way), entrance; cf. *pE, without
PR Tolpes, smokehole in dancehouse
cf. Alsea pni:k, outside, outdoor, door; Siuslaw pInak, garden (Golla 1997: 163); cf. also PW *pat, out(side)
*pi-, *pu-, demonstrative and quasi-pronominal third person root (531.15); cf. *bey, *be , lie, be
See: *pi, *pile•no, *pi-pel, *pu-pele-no, *pu-pele-t, *pu-r, *pu-t, *pu-t-u-no
$\mathrm{W}, \mathrm{N}$ pi-, pu-, third person pronominal root
P pi-, ?u-, third person pronominal root
*pi, third person singular subjective
W pi, third person singular subjective
N-BW pi, third person singular subjective
PH, R pi, third person singular subjective; cf. pi, declarative modal particle (Whistler 1986: 63); pi•t, then (ibid., 65)
SP-M pi, he
cf. Klamath bi, 3 sg. contrastive (DeLancey 1987: 462); Molala -pin, his, her, its; Sahaptian pən-, he, she, it (Berman 1996: 18)
*pil-a•, hot; cf. *pil-u, wrap; *pohpil, summer
W pila', person to be hot; pilama', weather to be hot
N-BW pElam(ha)-, hot

PCC pela•, (hot) sunshine; K CC T pela•men, cicada (hot weather bug)
PR pila--, hot
cf. Alsea pi:u:ł, to be warm (Golla 1997: 163)
*pi-le•-no, third person plural alienable possessive
W pele•n, third person alienable possessive, particular aspect
PCC pile•no, third person alienable possessive, inanimate possessed, inanimate possessor
*pil-u, wrap; cf. *pil-a•, hot
W pile', pilu-, to wrap
PCC pili/u-, wrap around
cf. W pali, wrapped, bundled up; PMy *b'al, with reflexes including: wrapping, bundling (Mopan b'łlik), roll up, twist, wrap up, turn over (Brown 1990: 21)
*pi-pel, third person dual subjective
W pe•l, third person dual subjective, neutral as to aspect pe•lel, third person dual subjective generic aspect
N-BW piloqEl, they two
PCC, K pipel, third person dual subjective
*pit, *pič (also *peč ?), squeeze; cf. *p ${ }^{\text {h }}$ et, pound with flat surface; * ${ }^{\text {h }}$ at-a, press;
*p'it, squeeze; *phit, mash
W pEt-, squeeze, pinch, constrict, press, poke, indent; doki piča, to choke someone; xun-piča, to squeeze; pečuma', cause to squeeze
N-S kethen petame, squeeze
PCC $\quad p^{\text {hit' }} \cdot$ ', to squeeze, to squash (one); K piti•ki/u-, squeeze
( P t could be from *č or $* \mathrm{t}$ )
*po•, now, new; cf. *po•m, ground; *po•-sani, today
W po•, new, now, recently; po•pom, now; po•bes, fresh
N-M paw', now; po'-pah-il, this year; BW pobe, new
PCC pa•, pa•l, now; K pa•, young; pal, now; cf. poho•wil, summer
PR pa•be, (brand) new
*po•-san-i, today; cf. *po•, now, new; *po•m, ground; *san-i, day, daytime
W po•sani, today, now
PCC, R pa•sani, today
*pohpil ? *po-pil ?, summer; possibly from *pompil, "earth hot," cf. *pil-a', hot;
*pomsim, winter $<$ *po $\cdot \mathrm{m}$, ground, earth
W po-pil, summer
N-G papil, summer
PCC, T, R poho•wil, summer; K ben $\mathrm{p}^{\text {h}}$ oho $\cdot$ wil, big summer (July)
*pol, water container
*phul, water container
W pulu $q$, container, deep container, basket, white grass basket, tumbler, pot, jug, bottle, water-containing vessel $<{ }^{*}$ pOl, container, hollow, sac $\mathrm{p}^{\text {huluq, bowl }}$
PCC, R polpol, lake, pond; K $\mathrm{p}^{\mathrm{h}}$ oko•la, basket, dipper, bowl
PCC me $\cdot \mathrm{mp}^{\mathrm{h}} \mathrm{ul}$, ocean (water all around, water seen in one place)
cf. Alsea p'uPú•ya, bucket; p'u?ú•t, full (Buckley 1988: 23); Eastern Mayan *pul, with reflexes including: container, water jug, draw water, fill a container to the top, cup for drawing water, pitcher, cup, vessel, and other related meanings; Northern Sierra Miwok pulís:a-, little basket, water-tight drinking basket; pulut:a-, dipper, bowl for dipping; Plains Miwok puluc:i-, basket, water-tight basket; Achumawi pulu:la, small mush basket or soup bowl; Tunica póluhki, bottle (all from Brown 1990: 36-37)
*po•m, ground; cf. *po', now, new; *pomsim, winter
W po $m$, ground, earth, land, world
N-B pōm, ground
PH-U pam, ground; T pom, under; po(•)mła, down
PR-U po•m, down; po•mła, down, low
*pomsim, winter; cf. *pohpil ? summer
W pomisim, winter
N-M pōm-sim, winter
PH, R pomsim, winter
*posolo, boil; cf. ${ }^{*}{ }^{\text {h }}$ ot-u, boil; ${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{o}$, fire
W posoloro, to boil (tr.), cook (tr.)
PR posolo, to boil
*pot, guts, intestines
W pot, intestines, guts, umbilical cord, bowels
N-BP pot, guts
PH, R pot, guts, intestines
SP-M pot', intestines
cf. PCC bus, belly; PMiw *púluk, belly, intestines; PCo *putlu, *puslu, pertaining to the belly; PU *puṭ•ul, *puṭlu-, *puṣlu-, belly, intestines; cf. PCos *pi•ti-(n), *pit•i-(n), abdomen, belly, tripe (Callaghan 2001: 320)
*puč-, jump
W počikta, to hop (Pitkin 1985 suggests this may be from pOk-, stick, prick, pierce, puncture, legs to stick out, hop; poko ra, birds hopping along)
PCC puta', to jump up and down (plural); putt ${ }^{\text {h }} \mathrm{u}$, to jump down (sg.)
PR putt $\mathrm{i} / \mathrm{u}$-, putaro, jump (up)
*puluq, mourning dove
W pulu $\cdot \mathrm{q}$ łey, mourning dove, folk-etymology "basket throw" (cf. PW *pol, *phul, water container)
PK, T puluk, mourning dove; CC dove
PR pulukpuluk, mourning dove
*pum, stoop
*pumpum, many stoop, be all stooped (iterative)
W pumel, to be stooped; pomin pumpumel, many to stoop down; cf. p'um, bend, double up, hunchback, perhaps from *p'Om, be unable to unbend
PK pumpu•mParo, all humped up, humped over
*pu•p, roe
W pu•p, salmon eggs, fish eggs, salmon roe, ovaries of salmon, a cluster of roe with skin on
PH pu', roe
PR-B pu', roe
Loss of final p in P is unexplained, perhaps dissimilation
*pu-pele-no, third person dual alienable possessive
W pule n , pe•len, third person dual possessive particular aspect
pe•lelun, pule•len, pe•lelen, third person dual possessive generic aspect
N-BW piloqam, their (dual)
PCC Tupelno, third person dual alienable possessive inanimate possessed
PR ?upeleno, third person dual alienable possessive inanimate possessed
PH-U, T-U ?upelnomin, third person dual alienable possessive animate possessed, animate possessor
PT-U pipelnomin, third person dual alienable possessive animate possessed, inanimate possessor
PCC ?upe•Inomin, third person dual alienable possessive, animate possessed, animate possessor
*pu-pele-t, third person dual objective
W pule•tum, third person dual objective generic aspect (also pule•tum and purunis)
N-BW piloqEl, them two (objective)
PR ?upelet, ?upe $(\cdot)$ t, third person dual objective animate
PK pipelet, third person dual objective inanimate
*puq-, blanket
W (wenem)puqas, blanket, quilt (wenem = middle)
PR p'okor, blanket type, comforter
PT-U kupu, blanket (metathesis)
*pu-r, third person singular inalienable possessive and genitive
W pir, third person singular genitive
pur, third person singular alienable possessive
N-W puy, third person singular genitive
PCC, K, R ?uy, third person singular inalienable possessive and genitive
*pur-i, dark
W puri•wa, be or get dark; puri•wi, darkness
N-G pu-itber, third-quarter moon, moon won't be up until late
PH-U p ${ }^{\text {h }}$ uy Załta, dark outside
*pu-t, third person singular objective
W put, third person singular objective, neutral as to aspect putam, third person singular objective particular aspect
N-W put, third person singular objective
PCC pi•t, third person singular objective inanimate; ?u•t, third person singular objective animate
$\mathrm{PK}, \mathrm{R}$ ?ut, third person singular objective animate
*pu-t-u-no, third person singular alienable possessive
W putun, third person singular inalienable possessive
N-BW putuna, his, her
$\mathrm{PCC}, \mathrm{K}, \mathrm{R} \quad$ ?u$\cdot \mathrm{no}$, third person singular alienable possessive inanimate possessed
*puy, east
*puy-el, *puy-el-ti (with locatives)
W puy, east; puye $\cdot$ l, eastward uphill; puyelti, there in the east (cf. *pu, yonder, there, those; pi, third person)
N-H puytipom, east; BW puy-, east, puye, a little ways east, pEl-, east a short distance (a back formation from peltipom, way east, $<$ *puyeltipom)
PCC puytuka, east; purnapomti•, east spirit; K puybe, puytuka, east; T-B puyel, east
PR puy, east (close by); puyel, east
SP-M poo'-yel'-te, east; A puri, east

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*phat-a, press; cf. *pit, squeeze; * ${ }^{\text {h}}$ et, pound with flat surface; ${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{it}$, mash W $\quad p^{\mathrm{h}}$ ata $\cdot$, to press
PH $\quad p^{\text {hatay }}$, seed beater
cf. PMy *pat (or *pat ${ }^{\text {y }}$ ?), with reflexes including: to form or shape tortillas from dough, mold with mud or soft substance, to shape or make pots from clay, mold, knead; Sierra Miwok patwa-, to press something down (all from Brown 1990: 29-30)
*phek-a•y-i/u ? *hik-a•y-i/u ?, stand (275.); cf. *he, *hi, demonstrative-interrogative root
*p ${ }^{\text {h }} \mathrm{ekp}^{\mathrm{h}}$ ek-a•y- ? hikhik-a•y- ? many stand (iterative)

W hika•ya/i/u-, to stand; hikhikaya, many to be standing $<\mathrm{hEk}$, stop, stand, stop in a standing position; cf. hik-, rake, hoe; hok-, jump; hik-, heap, mound, pile; *hE, stand (cf. hEy, stand bending; hE, demonstrative-interrogative)
N-BP hekka, ?olheka, to stand up; BW kenheka'-, stand
PH $\quad p^{\text {h }}$ cčh $^{\text {a }} \cdot \mathrm{yi} / \mathrm{u}$-, stand up; cf. $\mathrm{p}^{\mathrm{h}} \mathrm{ccch}^{\mathrm{h}} \cdot \mathrm{ya}$, foot of cloven hoofed; H-B piči•ya, legs of animal; CC $p^{h} \operatorname{tp}^{\mathrm{h}} \mathrm{ec}^{\mathrm{h}} \mathrm{a} \cdot \mathrm{y}-$, to stand (plural)
PR $\quad p^{\mathrm{h}}$ icch $^{\mathrm{h}} \mathrm{a} \cdot \mathrm{yu}$, to stand up
PH phič ${ }^{\text {h }} \cdot$ •ya, foot of cloven hoofed, and PK pako•, foot $\log (<$ *waqu $\cdot$, *waqo• ?, log) may point to a prefix p-, meaning "foot." If it is of PW ancestry, it may have combined with *hik-a $\cdot \mathrm{y}-\mathrm{i} / \mathrm{u}$, creating the two variants for "stand."
${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{e} \cdot \neq$, milkweed, wild hemp
$\mathrm{N}-\mathrm{K} \quad$ peL, Indian hemp; M narrow leaf milkweed (Asclepias)
PCC $\quad p^{\mathrm{h}} \mathrm{e} \cdot \neq$, plant used for string; K $\mathrm{p}^{\mathrm{h}} \mathrm{e}(\cdot) \nmid$, milkweed, twine, Indian string; KT $\mathrm{p}^{\mathrm{h}} \mathrm{e} \cdot$, wild hemp (Whistler 1976e)
*phem ? *bam ? grasp in one or both hands (276.)
W bam, put, arrange, part, carry, close with hands (cf. bam, fist)
PCC $p^{h}$ emtaro, carry (held in one or both hands, grasped); H-U (peru•) $p^{h} e m t a$, choke (someone, lit. throat grasp); cf. *?emi/u-, hold in arms (under *?imit)
*p ${ }^{\text {h }}$ er-, louse
W $\quad \mathrm{p}^{\mathrm{h}}$ eres, body lice
NG-M ped'-de, gray back; T-M ped-dem, larger [than yellowjacket] wasp; B perem, yellowjacket
PH $\quad p^{\text {h }}$ eri , (head) louse
PR pheris, head louse (body louse); Whistler 1976e: $\mathrm{p}^{\mathrm{h}}$ eri ${ }^{\text {, }}$, louse
cf. PM *pedes, body louse, PYnim *p ${ }^{\text {h }} t^{\text {h }}{ }^{\text {ta }}{ }^{\mathrm{h}}$ ? body louse (Callaghan 2001: 327)
${ }^{*} p^{h}$ et, pound with flat surface; cf. *phit, mash (perhaps the same root); *pit, squeeze;
*p ${ }^{\text {hat-a, press; * }}$ 'it, squeeze
W $\quad p^{h}$ Et-, hammer, pound: $p^{h} e \cdot t a$, to pound with a heavy flat surface; $p^{h}$ ita, to hammer; $\mathrm{p}^{\mathrm{h}}$ etaqas, flat
PR $\quad p^{\mathrm{h}}$ ete, seed paddle, seed beater
*p ${ }^{\text {h }}$ il-i, cut with sharp edge, cut long objects
W $\quad p^{\mathrm{h}} \mathrm{i} \cdot l \mathrm{la}, \mathrm{p}^{\mathrm{h}}$ ile, cut with scissors; $\mathrm{p}^{\mathrm{h}}$ ile•, to have a sharp edge; $\mathrm{p}^{\mathrm{h}}{ }^{\text {ili }}$, nominal form
PK, R $p^{\text {h }}$ il-, $\mathrm{p}^{\mathrm{h}}$ ili-, cut hair
cf. Alsea plu:h, feather, hair (Golla 1997: 163)
${ }^{*}{ }^{\mathrm{h}}$ il-i, crawling (like a snake), slithering (creature); cf. * wil-i, *p ${ }^{\text {hill-i } ? ~ s m o o t h ~}$ W $\quad \mathrm{p}^{\mathrm{h}} \mathrm{i} \cdot 1-$, crawl, slither (snake) ( $<\mathrm{p}^{\mathrm{h}} \mathrm{il}-$, cut long objects); $\mathrm{p}^{\mathrm{h}} \mathrm{i} \cdot \mathrm{lit}$, mountain whipsnake, snakes; $\mathrm{p}^{\mathrm{h}} \mathrm{iloq}$, earthworm
PCC, $K \quad p^{\mathrm{h} i l i} \cdot$ men, centipede; $\mathrm{CC} \mathrm{t}^{\mathrm{h}} \mathrm{o} \cdot \mathrm{k}$ pilimen, snake sp.; T-U tho pilimen,
tree snake; cf. CC ${ }^{\text {hillto }}$ kupa, to slip (and fall)
PR koyop ${ }^{\text {h }}$ il(i), earthworm, fishworm

* ${ }^{\text {h }}$ intus, skunkberries, sumac berries

W $\quad \mathrm{p}^{\text {hintus, sourberrry (Rhus trilobata); skunk wood, skunk bush, skunk berries }}$ NGT-M pin'-too, sour berry, aromatic sumac (Rhus trilobata)
PK $\quad p^{\text {h }}$ intus, skunkberries, sour berries, skunkbush sumac
*phit, mash; cf. *p ${ }^{\text {h}}$ et, pound with flat surface (perhaps the same root); cf. also ${ }^{*} \mathrm{p}^{\mathrm{h}}$ ata, press
W $\quad p^{h}$ itel, to be smashed
PCC $p^{\text {hiti/ }} \mathrm{u}-$, smash, mash something soft
cf. PMy *pic', with reflexes including: squeeze, wring, milk, blow nose, to twist in order to squeeze out, press, disembowel, tighten, press down, press something in order to extract liquid within; Lake Miwok $\mathrm{p}^{\text {híc'a-, to squeeze, crush quickly; }}$ Classical Nahuatl pici:nilia:, to squeeze something out for someone; Totonac p'it'á, squeezes it, squeezes it with the finger; Choctaw pičiffi, to squeeze; Tunica písa..., to press, to squeeze (all from Brown 1990: 30)
*p ${ }^{\text {h }}$ it, feathers
W $\quad p^{\text {hit, feathers; }} \mathrm{p}^{\mathrm{h}}$ ites, pites, valley quail
N-W phit, eagle
PH $\quad p^{\text {hit, feathers; CC also yellowhammer band }}$
PR $\quad \mathrm{p}^{\mathrm{h}}$ it, yellowhammer feather or belt
${ }^{*} \mathrm{p}^{\mathrm{h}}{ }^{\mathrm{o}}$-, protrude, swell; cf. *bul, protrusion; ${ }^{*} \mathrm{p}^{\text {h }}$ oyoq, head; ${ }^{*} \mathrm{p}^{\mathrm{h}}{ }^{\mathrm{o}}$-, float
W $\quad \mathrm{p}^{\mathrm{h}} \mathrm{Ow}$, protrude, as in $\mathrm{p}^{\mathrm{h}}$ oyoq, head; $\mathrm{p}^{\mathrm{h}} \mathrm{Ow}$-, swell; cf. $\mathrm{p}^{\mathrm{h}} \mathrm{Ob}$, lump, burst, spurt, fart; phoq, explode; $\mathrm{p}^{\mathrm{h}} \mathrm{OyVq}$, protruberance (head, mountain, knee); mi $\mathrm{p}^{\mathrm{h}}$ ołit, knobs or knots of growth on trees; $\mathrm{p}^{\mathrm{h}}$ ulit, bulges on a sick tree; p'ołčus, knobbed club
N-S phowca, swell
PCC $\mathrm{p}^{\text {h }}{ }^{\prime}$, ankle; phop'a, any stump, brush stump, the big burls that grow on oaks; K p'ota $k$, ankle, elbow; $\mathrm{p}^{\text {h }}$ ota $\cdot \mathrm{k}$, ulna ?, the forearm bone of a human, deer, etc.; H-B p ${ }^{\text {homak, knee }}$
PH, R $p^{\text {h }}{ }^{\circ} \mathrm{t}^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, swell; CC $\mathrm{p}^{\text {hol-, well } u p}$
SP-V podo'k, knee
${ }^{*}{ }^{\text {h}}{ }^{\text {o }}-$, float; cf. ${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{o}-$, protrude
W $\quad p^{\mathrm{h}} \mathrm{o}(\cdot) \mathrm{q}^{-}, \mathrm{p}^{\mathrm{h}}$ os-, float
N-S $p^{\text {h }}$ oyp ${ }^{\text {h }}$ oya, float
PR $p^{\text {h }}$ owt ${ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, float
${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{o}$, fire; cf. ${ }^{*} \mathrm{p}^{\mathrm{h}}$ ot-u, boil; ${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{u}(\cdot) \nmid$, blow
W $\quad p^{h} o \cdot h$, fire
N-S $\quad p^{h} o h$, fire
PH, R $\mathrm{p}^{\mathrm{h} o}$, fire

SP-M paw', pŏ, pŏh', fire
cf. Proto-Algonkian *po•tawe•wa, fire; *po•tawe', make a fire (Hewson 1993: 166)
*p ${ }^{\text {hon }}$, dew
W $\quad p^{\text {h }}$ ono $r a$, to drizzle, to be misty; $p^{h}$ una $\cdot$, to be dewy, to be dew
N-G pon, dew
PT po(•)n, dew
*p ${ }^{\text {hoq }}$, clap; cf. ${ }^{*}$ p'oq, ${ }^{*}{ }^{\text {h }}$ oq, pop
W $p^{\text {h }}{ }^{\text {oqp }}{ }^{\text {h }} \mathrm{o} \cdot \mathrm{q}$-, clap
N-BW pokca-, shoot
PCC $\mathrm{p}^{\mathrm{h}}$ oka , to clap ( pl ., more than once), make a clapping noise; $\mathrm{p}^{\mathrm{h}} \mathrm{o}^{2} \cdot \mathrm{kt}^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, to clap (sg.), clap hands together once
cf. Molala $\mathrm{p}^{\mathrm{h}} \mathrm{ak}^{\mathrm{h}}$, "bang" (Howard Berman, personal communication, 2003); PMy *poq', with reflexes including: burst open, thunder, burst, raise blisters, explode, sound of a bean pod or of a pod of the plant poq' upon breaking open; Northern Sierra Miwok pokțu-, to burst, explode, to blast open; Yuki pok', pop, explode; Choctaw bokafa, to break open, to crack, to burst, to open, to explode, and other similar onomatopoetic forms (Brown 1990: 41)
*p ${ }^{\text {h }}$ or, wreck (275.)
W yel-horuma', to break, destroy; yel-hura, to outgrow, be spoiled, broken, be the remains, be left over; po-m yelhura, to be an earthquake, earth to be destroyed; $<$ hOr, be left, remain
PR phor-, break (off)
*p ${ }^{\text {h }}$ ot-u, boil; cf. ${ }^{*}{ }^{\text {h}}{ }^{\text {o }}$, fire; *posolo, boil
*p ${ }^{\text {h }}$ ot-u-ma, boil (tr.)
W $\quad \mathrm{p}^{\mathrm{h}} \mathrm{Ot}-, \mathrm{p}^{\mathrm{h}} \mathrm{uta} \cdot$, boil, steam (intr.); $\mathrm{p}^{\text {h }}$ otuma $\cdot$, to boil (tr.), cause to boil
PH, R poti/u-, boil; potumaro, boiling (tr.)
*p ${ }^{\text {h }}$ oyoq, head; cf. ${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{o}-$, protrude, swell
W $\mathrm{p}^{\text {hoyoq, head }}$
N-W phoq, head
P $\quad p^{h}$ akulul, $p^{h}$ akokol, head (the first from Swadesh's Wintunian word lists, the second written in by Whistler; dialect?)
SP-V bu $\cdot k^{c}$, head
SP-M bŭk, head
*phu, *buk, ashes, dust
W bukul, dust, soil, dirty; dočibukul, ashes (fire making dust); $\mathrm{p}^{\text {h}}$ uke, snow to be powdery or like dust; $\mathrm{p}^{\mathrm{h}} \mathrm{uq}$, ashes after they're dumped (cf. $\mathrm{p}^{\mathrm{h}} \mathrm{Oq}$, explode, erupt ?); $\mathrm{p}^{\mathrm{h}} \mathrm{kk}^{\mathrm{h}} \mathrm{ul}$, dust (Swadesh 200-word diagnostic list from Wintunian word lists with notes by Whistler); M poo'-tus, Indian summer, smoky haze; cf. W-P baq, dusty, misty, smoky, thick of atmosphere
N-S $\quad \mathrm{p}^{\mathrm{h}} \mathrm{uk}$, ashes, dust

PK $p^{h} u t$, dust, ashes
PT $p^{h} u t, p^{h} u c ̌$, ashes, dust
PR phut, ashes, dust (fine dust only, e.g., when blowing); buti?aro, dusty
Widespread areal term; e.g. Klamath boqboq'-, become dusty, dusty-white; Nez Perce púxpux, dust; Sahaptin papxw, dusty, gray, faded; Molala puqp, dust; Wasco -spux, dust (Berman 1996: 20); Mil pó•tel, white ashes from a forest fire, Mm p'idúsi, ashes (Callaghan 2001: 323)
*phul, see ${ }^{\text {p }}$ pol
${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{u}(\cdot) \mathfrak{l}$-u, blow (of person, not the wind); cf. ${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{u}(\cdot) \mathrm{r}-\mathrm{u}$, breathe; ${ }^{*} \mathrm{p}^{\mathrm{h}}{ }^{\circ} \cdot$, fire
*phu( $)$ l-č ${ }^{\text {h }}$, blow on, blow at
W $\quad p^{h} u \cdot ł a, p^{h} u ł e, p^{h} u \not u-$, to blow; $p^{h} u(\cdot) \nmid c ̌ a, ~ t o ~ b l o w ~ o u t, ~ b l o w ~ a w a y ; ~ c f . ~ p ’ u \cdot ł a, ~ t o ~$ spray
N-PS phu•ła, to blow; BW puLcu'-, blow
PCC $p^{h} u \cdot f i / u-$, to whistle, blow into (plural); $p^{h} u \not t^{h} u$-, blow on (sg.); K $p^{h} u \not t^{h} u-$, blow out, exhale, blow away, blow on
PR $\quad p^{h} u \not u$, blow on, winnow; $U p^{h} u \cdot \neq t^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, blow for a long time
Widespread areal imitative term connecting 'fire' and 'blow'; cf. e.g. ProtoAlgonkian *po•ta•čike', he blows (Hewson 1993: 166) and Proto-Algonkian forms listed above under PW * ${ }^{\text {h}}{ }^{\text {o }}$, fire
${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{u}(\cdot) \mathrm{r}-\mathrm{u}$, breathe; cf. ${ }^{*} \mathrm{p}^{\mathrm{h}} \mathrm{u}(\cdot) \mathfrak{1}$, blow
*?ol-phur-u, breathe
*p ${ }^{\text {h }} \mathrm{u} \cdot \mathrm{ru}$, heart
W $\quad \mathrm{p}^{\mathrm{h}} \mathrm{u}(\cdot) \mathrm{r}-, \mathrm{p}^{\mathrm{h}} u(\cdot) \mathrm{ru}-$, breathe; ?ol-p ${ }^{\mathrm{h}}$ ure, , ol- $\mathrm{p}^{\mathrm{h}}$ uru-, to breathe; $\mathrm{p}^{\mathrm{h}} \mathrm{u} \cdot \mathrm{rus}$, heart
N-S phuyna, breathe; BW Tolpuyna', breathe
PCC $\quad p^{h} u \cdot r u-$, to rest; $p^{h} u \cdot r u(m a)$, heart; $K$ ?olp ${ }^{h} u r u$, to breathe; $p^{h} u \cdot r u$, heart
PR ph ${ }^{\text {h }}$ •ru-, rest; ?olp ${ }^{h} u r u-$, breathe
SP-M poo'-roo, heart

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*p'ač-a, spark
W p'a•ča, send out sparks, splash; cf. p'ay, set fire to
PCC p'ata', spark; K p'at ${ }^{\text {ha }}$ ', (one) spark
PR p'atah, to pop, spark
*p'a..1..m-, *p'a..m..l-, bobcat, wildcat
W p'ilimet, civet cat, bobcat; p'ałimet, wildcat, lynx, bobcat
PK p'amalay, wildcat, bobcat
PR p'amalay, wildcat, mountain lion
*p'aq, pound
W p'aqča, to crack acorns (with a stone)
PCC p'aki/u-, to nail; K pound, hammer

PR p'ahta, cracking (acorn) (by hitting on top)
SP-M choo-oot po-ko'-so-te, I struck him
*p'at, viscous
W p'ata•, to be thick (of doughy things)
PCC p'at ${ }^{\text {b }} / \mathrm{u}-$, viscous, thick
*p'e-, inclusive person pronominal root (531.12); cf. *p'ur-i, reciprocal
See: *p'e-le, *p'e-le-no, *p'e-le-t, *p'e-pel, *p'e-pele-no, *p'e-pele-t
$\mathrm{W}, \mathrm{N}, \mathrm{P} \quad \mathrm{p}$ 'e-, inclusive person pronominal root
*p'e•1 ? *p'i•l ? go out, pour out slowly; cf. *bil, burn bare
W p'i•la, to pour out slowly, to spill liquid
PCC $\quad p^{\mathrm{h}} \mathrm{o} \cdot \mathrm{p}$ 'e•les, fire going out, glowing (not quite out); T-U p'ilp'ilo, water flowing but almost dry
*p'e-le, first person inclusive plural subjective
W p'ele, first person inclusive plural subjective, neutral as to aspect
N-W p'ele, first person inclusive plural subjective
PK p'ele, first person inclusive plural subjective
*p'e-le•-no, first person inclusive plural alienable possessive
W p'ele•n, first person inclusive plural alienable possessive, particular aspect
PK p'ele•no, first person inclusive plural alienable possessive, inanimate possessed
*p'e-le-t, first person inclusive plural objective
W p'ele•t, first person inclusive plural subjective particular aspect
PK p'elet, first person inclusive plural objective
PR p'ele•t, first person inclusive plural objective
*p'e-pel, first person inclusive dual subjective
W p'e•l, first person inclusive dual subjective, neutral as to aspect
N-W p'e•l, first person inclusive dual subjective
PK, R p'epel, first person inclusive dual subjective
*p'e-pele-no, first person inclusive dual alienable possessive
W p'e•len, first person inclusive dual alienable possessive particular aspect
PL-U p'epelno, first person inclusive dual alienable possessive inanimate possessed
p'epelnomin, first person inclusive dual alienable possessive animate possessed
PR p'epeleno, first person inclusive dual alienable possessive inanimate possessed
*p'e-pele-t, first person inclusive dual objective
W p'e•let, first person inclusive dual subjective particular
PK p'epelet, first person inclusive dual objective
PR p'epe•t, first person inclusive dual objective
*p'il-e, choose
W p’iłe, to choose, pick, select (the favorite)
PCC p'ił-, pick out; K p'iłe-, pick out
*p'ir-čh $-u$, to skin
W p'irča, to skin an animal
PT-U p'irtu?, skin animal (imp.)
PCC p'iłt h , to skin, peel; K p'ilth ${ }^{\text {h }}$ uro, to skin
PR-B perto, to skin
*p'it, squeeze; cf. *pit, squeeze; *p ${ }^{h}$ et, pound with flat surface; *phat-a, press; *phit, mash
W p'ite, to feel fruit to see if ripe, i.e., to squeeze; p'ita', to squeeze (as through narrow confined space); cf. p'it-, thick, sound of splashing of thick liquids
PH-L p'it ${ }^{\text {h }} \mathrm{i} \cdot \mathrm{ko}$, fist
*p'od, physical injury
W p'ode•la, to (get) hurt, get injured physically, bodily; ruptured; perhaps < *p'Od, move back and forth, splash, vibrate, nod, spasm, quiver
PR p'odi, to pluck off (feathers off a bird, things off a tree)
*p'olo•q, tie a knot
W p'olo $q$ qa, to tie a knot, to tie on a bow
N-K polō'ka, knot; BW ?Elpoloknat-, tie
PCC p'olo•ki/u-, to knot on tightly; tie on tightly
*p’ołoy, potato sp .
W p’ołoy, Indian potatoes; 'cat ears' (a wild edible plant)
NGT-M pos'-loi, Brodiaea grandiflora (Indian potato)
PK p'osoy, brodiaea sp. (Whistler 1976e)
*p'oq? *p ${ }^{\text {h }}$ oq ? pop; cf. *p ${ }^{\text {hoq }}$, clap
W $p^{\text {h } u q a \cdot, ~} p^{\text {h }}$ oqa $\cdot$, to erupt, blast, pop
PCC p'oka', to pop, crackle
*p'oq, woman, wife; cf. *p'ot, old woman; *p'oqi-ta, woman; *p'ukuy, *p'uquy, young girl
W p'uqat (p), p'uqan (g), wife; p'uqaq'es, women; p'uqana, man to marry
N-S -p'oqan, wife
PCC, K, R Tonok, wife (Whistler 1980: 253 proposes *pur-un p’oq, his woman $>$ Proto-Southern Wintun *?ur-un-ok > P ?uy-Tonok, his wife; cf.
loss of p in P reflexes of *p'ukuy, *p'uquy, young girl, and loss of initial p in two SP forms: SP-M o-ke'-tah, woman $<$ *p'oqita, and ?ur, wild onion $<$ *p'u( $\cdot$ )r.)
PCC p'oksenčh $u$, sister-in-law, brother's wife; p'okuytu, mouse sp.; H-B pokoytu, shrew; T p'ukuytu, shrew
PR p'oksen, sister-in-law (husband's sister, wife's sister)
PCC, K, T, R p'o•k, beaver
cf. PMiw *póč•iṣ, woman, old woman (Callahan 2001: 331 suspects that this Proto Western Miwok form is a deep loan word from some Patwin dialect that underwent palatalization)
*p'oqi-ta, woman; cf. *p'oq, woman, wife; *p'ot, old woman
W p'o•qta, woman, female
PCC, K, R p'okita, woman
SP-M o-ke'-tah, woman; cf. o-kis', little girl (4-12)
${ }^{*}{ }^{\prime}{ }^{\prime}{ }^{\prime} q^{\text {h }}$ om, ${ }^{*}{ }^{\prime}$ 'o( t$) \mathrm{q}^{\text {h}}$ om, poison oak
W p'otxom, poison oak; cf. p'uka•s, poison
PH, R p'ok ${ }^{\text {hom, poison oak }}$
SP-M po-cho'-kum, poison oak
cf. Klamath č'imtsam, poison oak (Barker 1963:87); Atsugewi póxóm, poison hemlock (Olmsted 1964:10)
*p'ot, old woman; cf. *p'oq, woman, wife; *p'oqi-ta, woman
W p'uta', to be or grow old, of women; p'utah, grandmother, father's sister
N-W p'ota•s, old woman
SP-M 'pot, 'paht, 'pawt, old woman
*p'ukuy, *p'uquy, young girl (265.); cf. *p'ot, old woman; *p'oq, woman, wife;
*p'oqi-ta, woman
W p'ukuy, p'uquy, niece; p'ukusta, step-daughter, young girl
N-W č'u•n, older sister (borrowed from Hill Patwin); N-H net c'u•n, my (older or younger) sister
PH Zuču-, ?uču•n, older sister; PCC nay Zuču•n, my older sister; K na•min ?učh $u \cdot n$, ?učh $u$ ch $^{h} u$, my older sister; but: p'ukuytu, shrew, with preserved *p'
PR Puth $u \cdot n$, older sister
Whistler 1980: 110-111: "Hill Patwin shows the expected reflex of the Proto-Wintun etymon..... River Patwin, however, shows a second consonantal fronting: č>t ${ }^{\mathrm{h}} .$. . The reasons for this second, irregular fronting are obscure; conceivably it could be influenced by the regular, synchronic morphophonemic alternation between /č/ and $/ t /$ in Patwin verbs, although the conditioning factors are not really appropriate for the kinterms." Ibid., p. 275: "**p'oq (woman) + **kuy (small) > *p'uquy/*p'ukuy. "The recording of both q and k as the medial consonant in Wintu suggests that the medial consonant cluster simplification was never firmly resolved one way or the other, resulting in a lexical doublet."
cf. PYgen *na-?at ${ }^{\text {h }}$, older sister
*p'u( $) \mathrm{r}$, *p'u( $) 1$, wild onion
W p'u•ł, p'u•r, wild onion (p'u•ł<*p'u•r + -h, particular aspect or $<$ *p'u•l+ -h ?)
PCC p'ur, wild onions
K pulway, a bulb that grows around Cooks Springs, like an onion though not as strong; pu-rway, edible bulb, like an onion; K, T busway, wild onion; H-U pu rway, wild onion
SP ?ur, wild onion (Whistler 1976e)
*p'ur-i, nipple; cf. *p'ur-i, reciprocal
*p'ur-u, seep out
W ?i•mit p'uri, nipple; p'ure, to suckle; p'u•runa•, milk to come out of the nipple; p'ura, to milk a cow
PCC p'uri, a seep, a small spring; p'uri/u-, spring water to come out of the ground, to seep out; K p'oy, nipple
PR-U boy, nipple
*p'ur-i, reciprocal (423.36); cf. *p'ur-i, nipple; *p'e-, inclusive person pronominal root
W -p'ur, reciprocal; -p'ure, indicative form; -p'uri, nominal form
N-C dūr'-yu-pu-di, gift dance [give-reciprocal-nominal]
PH, R -p'ir, reciprocal
SP-V ciripisi', copulate
SP-M ${ }^{\text {ch }}$ 'leb-bah'-per-re, war [fighting each other]
cf. Karok pura•n, each other

## q

*qa-, green heron?
W qa•tqat, duck, mudhen, coot
NG-M mem'-kawt, coot (fulica), green heron (Ardea virescens)
PK kalawk'awk'aw, green heron; PT k'awk'aw; TT k'awk'aw ? (Whistler 1976e from Merriam)
PR k'awk'awč ${ }^{\text {h }} \mathbf{u}$ ?, green heron (Whistler 1976e from Merriam)
*qa, referential; cf. *he, *hi, demonstrative-interrogative; *-k, completive
W qat, referential (as for, perhaps, rather); qa, qah, or, and/or, uninflected particle, sentence connective
PT, CC ka, irrealis modal particle, a clitic (sometimes merely seems to indicate indefinite reference for a subject nominal (Whistler 1986: 63)
PR kana, but
*qačit, hawk or falcon sp.
W qačit, goshawk; cf. k'atit, hawk, chicken hawk (? < k'ač, crunch); k'ačet, bald eagle
N-M kah'-chit, red-tailed hawk (Buteo borealis)

PCC kat ${ }^{\mathrm{h}} \mathrm{it}$, kati $\cdot t$, bullethawk, peregrine falcon; $\mathrm{K} \mathrm{k}^{\mathrm{h}} \mathrm{a}^{\mathrm{h}} \mathrm{i} \cdot \mathrm{t}$, bullethawk, peregrine falcon; K,T, R kati•t, prairie falcon (Whistler 1976e); cf. CC kačhartu, sharpshinned hawk (Whistler 1976e from Merriam)
PR kati $\cdot$ t, hawk sp. smaller than red-tail
SP-M kah-teet', duck hawk
*qalaw, alder; cf. *k'al-, intense visual perception
W qalaw, alder
NGT-M kal-low'-me, tree alder (Alnus oregana)
PCC, T kalaw, white alder
cf. Alsea qlx̣a:-(?)c-t', alder (Golla 1997: 164)
*qaq, indistinct color ?; cf. *q'a•q, mental clouding; *qoq, bark
*qa•q, raven, crow
W qaqalas, faded brownish color, dirty-looking color; qa•qi, grayish; qa•qat, raven; qaqal yemer, Milky Way (also q'aqal yemer, "oblivion road," from *q'a•q, mental clouding)
N-C k•ak, raven; GT-M kahk', raven (Corvus corax); BW qak, crow
PK kakt"uro, light brown; kakt ${ }^{\text {h }}$ č'alal, "pale flower," Gilia capitata; CC ka•k, ko $\cdot \mathrm{k}$, raven, big black bird; $\mathrm{T} \mathrm{ka} \cdot \mathrm{k}$, raven
PR $\mathrm{ka}(\cdot) \mathrm{k}$, crow
SP ka•k, raven (Whistler 1976e from Merriam)
Widespread imitative word for crow/raven
*qar-č̌ ${ }^{\text {h }}$, rake (toward self ?, with mediopassive); cf. *k'ar-a, scrape
W se-qarča, to stir cooking; cf. se-k'ači-ča, to stir, grind; qEr-, pull
PH-U kart ${ }^{\text {h }} \mathrm{i}$, to rake; cf. CC k'a $\cdot d o$, to rake up
*qer-e•, belch
W qerča, qere•ta, qeruča, to belch; cf. qira•, to moan; qerumena•, suffer
PK kere•-, belch
*qeti, *q'eti? wormwood
W qeti, wormwood; Pitkin also lists xeti for McCloud dialect; cf. xit, chaparral; xetin, camas
NG-M ki'-te, kă'-te, sage herb; K kêtit, wormwood; NT-M 'ki'-et-te, sage herb (Artemisia ludoviciana)
PH, R k'et ${ }^{\text {th}}$, mugwort wormwood (Artemisia vulgaris)
*qewel, house; cf. *xerel, people of, village
W qewel, house, home, nest; cf. kum, be without holes, be a good shelter, provide shade
N-PS k•el, house; BW qel, house (cf. hiwa, home); G keweł, place; kêwêl, village; T-M ka'-el, house (appears to be intermediate form in loss of w)
PCC kewe, house; K kewel
PR kewe?, house

SP-M kě'-wel', house
cf. Alsea qli:x̣w-, to hide, cover; qlxwi:-slo:, hidden place, secluded spot (Golla 1997:164); PUA *kami-l (Nichols 1981: 26). PW *qewel and *xerel may be reborrowings of the same UA form or from two UA languages.
*qir, pull; cf. *her-u, motion back and forth; *q ${ }^{\text {h }}$ er, scrape; *kip, pull or throw up
*qirqir, pull (iterative), drag
W qEr-, qire, to pull, drag, draw; qirqire, to pull repeatedly, many to pull
N-S qii, pull
PCC ?olkir, to pick up with the hand (cf. -kir, to move with hand by pulling); K ?olkir-, ?olk ${ }^{\text {hir }}$
PR-B ?olkir, ?olketa, to pick up
PCC -kir, to move with hand (by pulling) (a bound form, requires a prefix); kirkiri, to drag
PK ?olkirisok, thing you pick up (fork); k'irkita, dragging
PR kirkir, to drag
*qoh, prone, inclined
W quhal, to fall prone; cf. kuk-, knock-kneed, bowlegged; qOh-, tan a bear hide, i.e., stretched out on a frame; koho ra hara $\cdot$, to walk noisily

PH-U ko ho, cripple, limp; HT-B lame; A-U koh-, cripple
*qol, throw water on fire (making steam)
W Tol-qolča, ?ol-qolčupaq, to throw water on the fire; ken-qula, to pour water
PK, T kula', little sweathouse
PR-B kola, sweathouse; U k'ula', sweathouse for ladies
*qo(•)1, mouth; cf. *holoq, hole; *k’olom, cup-type basket; *kalay, gap
W qo( $\cdot$ ), mouth
N-PS qo•l, mouth
PH, R ko•l, mouth; cf. K ko•lma, sing; R-B kolto, song leader
SP-A kol, mouth
*qo(•)la, hide, buckskin
W qu•lah, qu•leh, qu•lit, qu•let, elkhide; qu•lit, qu•let, elk; qu•le, elkhide robe, elkhide armor, dressed elkhide, elkhide clothes; cf. qOh, tan bearhide; qOl, shed; qu•l, lie down undressed; k'ula, to strip off maple bark; č'ahay k'ulaw, maple bark apron; se-korča, to put buckskin across the opening of a door or window $<\mathrm{kOr}$, net, veil, cataract
N-C kú-lět, elk; kú-le, tunic armor; kâ-lat, deerskin robe
NT-M ko-lah't, buckskin (tanned)
PK k'olay, hide (snake, lizard); H-B k'o•lay, buckskin; T-U k'olay, skin, hide of human or animal
PT k'olay, hide, skin, buckskin
PR-B k'o•lay, buckskin
cf. Proto-Pomo *qá lab?, *qalá b?, maple (McLendon 1973: 81)
*qo $\cdot$ ltep, poorwill; cf. *qo $(\cdot) 1$, mouth, *tep-i/u, emerge, sprout, cross (meet)
W qo•ltep, poorwill
NG-M hōl-dep, poorwill (Phalaenoptilus); T-M hahl'-děp
PK ko•l-te•pat, poorwill (mouth wide open)
*qom ? *q'om ?, big one(s) (particularly animates), "big old"
W qomos, big things, older relatives; ancestors, big, a lot, "big old"
N-B komosa, large; C ko-mó=měm, ocean (big water)
PH k'om, big; K k'ombanomin lollol, "old-people's flute"
PR k'om, big, used for things that grow, animals, fruits, also beads
*qop, bathe; cf. *q${ }^{\text {h}}$ at, * ${ }^{\text {hot }}$ ?, wet; *qum, dip
W qOp, bathe, wade, swim, dive, wash
N-S qopaa, swim
PCC kowi/u-, bathe, swim (not moving through water) ( ${ }^{*} \mathrm{p}>\mathrm{w}$ ?)
PR koyi/u-, bathe, take a bath
*qoq, bark; cf. *qaq, indistinct color ?; *qªpla, outer bark
*qoq-č, skin
W qo•q, bark; qoqči, skin, fur, hide; cf. xan-xuqa, to split off bark; qOq, peel
$\mathrm{N}-\mathrm{C}$ kóh-chi, deerskin
PH kokču, skinny, thin (of person)
PR k ${ }^{\mathrm{h}}$ oki, bark (of tree)
*qoq- ? skull
N-M tsoo-noo'-ko-ko, skull (analysis uncertain)
PH-B, R-B $\quad p^{\text {hakakay, skull; R-U pakukul; cf. *paq, bone }}$
*qor-i/u, grind; cf. *k'ar-a, scrape; *k'or, scratch; *k'ur-a', tear
*qor-i, meal (pinole type)
W qura', qori/u-, to grind; nep qori, meal of pounded grasshoppers; cf. q'Ot-, hit
N-B kōं, pinole, meal
PCC kori/u-, grind; kori, pinole; cf. kurth ${ }^{\text {h }}$, to break up; kurči, something frail (if you hold it, it breaks, like an eggshell); $\mathrm{K} \mathrm{k}^{\mathrm{h}}$ ori/u-, pound (pinole); kori (also $\mathrm{k}^{\mathrm{h}}$ ori ?), pinole; cf. k'ori/u-, smash up, mash up
PR kori/u, grind seeds, pound up; cf. $\mathrm{k}^{\mathrm{h}} \mathrm{ort}^{\mathrm{h}} \mathrm{i} / \mathrm{u}-$, scrape, clean scales off fish
*quč-u, tickle
W qučula, quču $\cdot q a$, qučuqučuča, to tickle
PK čhuku-, tickle; PH-U čuki (metathesis with regular sound change $* q>k$, but no fronting *č $>\mathrm{t}$ )
*qul, flame ?; cf. *holol, sunshine; *č' oł-, flow
W qul, waves < qOl, throw, spill, pour liquid, esp. water; č’ul, flame; cf. č'ul, pour, spill (cf. "sunlight spills")
PR kulta, to flame (up), kulu, a flame
*qum, dip; cf. *qop, bathe; *dum, dip
W qum-, to soak dried absorbant things, crush something dry before soaking
PT-U ku mul, to dip oneself up and down in water

## $\mathbf{q}^{\text {h }}$

* ${ }^{\text {h }}$ al, away, other, different; cf. * ${ }^{\text {h }}$ an, away

W xal-, other, apart, separate, away from, other, different, strange
PK $\quad \mathrm{k}^{\text {hal-, }}$ away, different
yu•ta pi $\mathrm{k}^{\mathrm{h}}$ alo-hara•bus, the rain all went away
PR $\quad k^{\mathrm{h}}{ }^{\text {alt }}{ }^{\mathrm{h}} o y$, visitors, strangers, people coming from somewhere else
cf. Alsea qahal-, different, other; qla:hk-, to run away, escape (Golla 1997: 164);
PMy *xal/xel, with reflexes including: different, contrary, varied, opposite, differ, vary, divide, change, diverse, other, of another kind, foreign, distinct (Brown 1990:
25)

* ${ }^{\text {hal }}$ al-tu? spirit
(The N and P forms below are shared areally, which most likely makes this a borrowing between N and P . However, $\mathrm{PW} * \mathrm{q}^{\mathrm{h}}$ al, away, other, different $+*-\mathrm{tu}(\cdot)$, person, people, is a plausible derivation, so perhaps the term is of PW ancestry in P (with double fronting) and was then borrowed into N. W ya paytu•, spirit, may have replaced an earlier *xal-tu( $\cdot$ ). An alternative connection may be with *sa $\cdot l$, pale)
N-W saltu, war dance man; G waisaltu, north spirits; T-M săl-too, wild oats (Avena sativa) (spirit)
PH saltu(ma), spirit (esp. any of the spirits impersonated in the dances)
PR saltu, spirit (any) of the dances (e.g., big head), ghosts, any spirit
SP-M sol'-too-in, people (white)
cf. Alsea slu:hk'-, to dream; su:lhak'-i:yu:, dream spirit, guardian spirit, supernatural power (Golla 1997: 165); Yana (all dialects) saldu, white man, perhaps < Spanish soldado (Sapir and Swadesh 1960: 149)
*q ${ }^{\text {hala, plant }} \mathrm{sp}$.
W xalah, root of snakehead, wild potato, edible, wild onion; xalat, wild greens along streams; cf. xula, water lily; halat, wild grapevine
NG-M hahl-lahp, root
PK, CC, T k'ala, mule fat
cf. P forms in hol- listed under *dum
* $q^{\text {h }}$ am, sack

W xam (also xami ?), net sack, carrying band
PK kham, sack; HT-B quiver
*q'an, away ?; cf. *q ${ }^{\text {hal }}$, away
W xan, away, off, out
PR k ${ }^{\text {h }}$ ay-łeye, to throw away
Irregular $\mathrm{n} / \mathrm{y}$ correspondence; perhaps not valid

* ${ }^{\text {h}}$ ap, wild grapes

N-C kap, grapes; GT-M 'kahp'-loi, wild grapevine
PH, R k ${ }^{\text {hap }}$, wild grape
Unless N-C's $k$ and M's ' $k$ represent [ $\left.q^{h}\right]$, this may be a case of borrowing between N and P .
*q ${ }^{\text {h }}$ apla, outer bark (as used for building); cf. *k'ab, crack open; *qoq, bark
W xapla, thick bark that comes out in slabs (cedar ?); cf. xOp, stripe; xOq, pull off bark slabs; xapla qewel, slabs of bark house, e.g., pine wood or any fir
PCC $\quad \mathrm{k}^{\mathrm{h}}$ apala, bark; $\mathrm{K} \mathrm{k}^{\mathrm{h}}$ apa $\cdot \mathrm{la}$, bark of any tree (easy to take off in spring when the sap is running), outer bark of any tree; cf. A-U čapo, bark house, tule house
cf. Achumawi (Olmsted 1966:13) ahphla?, bark (of trees in general and of ponderosa pine); Klamath (Barker 1963) p. 482: stabl's?m, inner bark; p. 392: stabl', to gather inner bark; stabl'a, gathers inner bark; stabalča, goes to gather inner bark; ProtoPomo (McLendon 1973: 66) * $\mathrm{q}^{\mathrm{h}}$ ahwal ${ }^{\mathrm{y}}$, bark (of tree); Maidu (Shipley 1963: 213) kapú, kupúmi, bark in thin sheets; Nisenan (Uldall \& Shipley 1966:249) kapum, bark
*q ${ }^{\text {has }} \mathrm{i} \cdot 1-7$ a, have impaired vision; ${ }^{*}-\mathrm{i} \cdot 1-$ is probably ${ }^{*}$-wil, ${ }^{*}-\mathrm{i}(\cdot) 1$, animate comitative; cf. *q'os, fog, steam; *q'a•q, mental clouding; *xah, *xir, dizzy
W (po•m) xasi•la, to get dusk; xa•sa, to be dimly visible in the distance; xasal, faded, pale (of color)
PCC $\mathrm{k}^{\mathrm{h}}$ asi $\cdot 17 \mathrm{a}$, be cross-eyed
cf. Achumawi (Olmsted 1966:58) xaš, dark, dim; Klamath (Barker 1963:325) qyos, be barely audible (> qyosa : /qyosa/ is barely audible, as a voice coming very faintly from the distance; Northern Yana xal..lu-, Yahi xamlu-, pitch dark (Sapir \& Swadesh 1960:179)
*q ${ }^{\text {h }}$ at, * $q^{\text {h }}$ ot ?, wet; cf. *qop, bathe; *het, sudden escape of water
W xat-, throw mud or pitch; xatuma, to snow wet snow; Rel-q'atal, person to get wet; ser-q'ačaya, to splash in all directions
N-S qhułtala, wet; T-M hat'-tah-lah, wet
PR $\quad k^{h} o t^{h} u$, wash something
Perhaps *q ${ }^{\text {h }}$ ot with assimilation in W to: łat-, wet, damp, moist, soak, drench; sat-, wet; hat-, escape of water

* ${ }^{\text {h}}$ aw-a, choke on

W xawal, to choke (not choke to death) on a bone, something to be stuck in one's throat; also xawal, to get a fish bone lodged in throat
PH, R k ${ }^{\text {h }}$ awaya-, to choke (on); cf. H-U k ${ }^{\text {h }}$ awt $^{\mathrm{h}} \mathrm{i}$, cough up
*q'awa ? *q'awa ? paddle
W xawas, fan-shaped seed beater; xawa•, to beat seeds into container, to thrash fruit or nuts off a tree; xawi, seed beater
NT-M ah'-wah, seed paddle
PH-B č'ewayho, soup-paddle

PR-B č'ewak, soup-paddle
cf. Jacaltec xaytox, to break harshly (Brown 1990: 60)
*q ${ }^{\text {haydani, autumn }}$
W xaydani, autumn
N-H khayda, xayda (?), autumn
PH-B $k^{\text {h }} a y d a n i$, autumn
PR $\quad k^{\mathrm{h}}$ ada $\cdot \mathrm{ni}$, fall

* $q^{\text {h }}$ ed-, ${ }^{*} \mathrm{q}^{\mathrm{h}} \mathrm{ič}-\mathrm{a} / \mathrm{i} / \mathrm{u}$, cut; cf. * $\mathrm{q}^{\text {h }}$ er, scrape; * ${ }^{\prime}$ 'ih, separate into strands or slices

W xiča, xita, xite, xiči/u-, to cut; xe•ta, to slice, carve; xide, to cut off limbs
PK $\quad \mathrm{k}^{\mathrm{h}}$ eda•ro, slice once; $\mathrm{k}^{\mathrm{h}}$ edi, a slice; $\mathrm{k}^{\mathrm{h}}$ eduro, slice into many pieces
PCC k'ača', to cut one thing; k'ač/i/u-, to cut (up, into pieces)
PR k'ačh ${ }^{\text {hoho, k'ačaho, to cut }}$
cf. Klamath (Barker 1963) qd${ }^{v}$, cut (pp. 316-17); qat’, clear forest, cut down brush (p.
313); qodo, coccyx, base of spine (p. 323; cf. W xidi, buttocks); q'eč', pound, chip, scribble, scratch, sharpen (p. 329); gatt', break, cut in 2, chop down (p. 137); Achumawi -anakat-, to cut (with ax), to chop wood (Berman 2001: 347; Berman lists many other similar terms throughout the area); cf. PMy *q'et, with reflexes including: break the back, break with hand, tear off branches, break limb; Mixe ket, to break (for example a metate), Sierra Popoluca kit, break; Zoque, kihtu, it is broken; Nahuatl (Tetelcingo) kitlackotuna, he bursts it, he breaks it; Atakapa kec, to break; Natchez kecup, broken; Wappo ké?tekhi?, broke itself in two (all from Brown 1990: 19)

* ${ }^{\text {h}}$ ep, beard, whiskers (particularly of fish)

W xep, fish head (any species which is edible); xepes, head of suckerfish or sturgeon (which have whiskers); salmon head, the middle jelly-like part, the celluloid-cartilaginous top part or front center of a salmon skull, or fish head, a food delicacy; xipa; to have the fish head feast
PH-U k ${ }^{\text {h }}$ epum, septum
And the following with double fronting:
PK sepsep, whiskers, beard, tree moss, stream moss; sepsept ${ }^{\text {h }} \mathrm{i} \cdot \mathrm{r}$, catfish, carp (whisker fish); T sepsep-t ${ }^{\text {h }} \mathrm{i} \cdot \mathrm{r}$, catfish, carp (whisker fish) (Whistler 1976e from Merriam)
PR sepsep, se•psep (?), beard, mustache, whiskers; B sepseptu, catfish

*k'or, scratch; *qir, pull
W xe(•)r, flour; xire•, to shave, carve; cf. k'Or, shave, whittle, scrape, plane; q'Ed-, break
NT-M nō'p-chā'-ke-‘ka'‘-te, skin scraper or dressing knife
PH, R $\mathrm{k}^{\mathrm{h}}$ er-, to scrape off, shave; cf. T k'era•, to cut down a tree; $k\left({ }^{( }\right)$el-, to whittle; $\mathrm{K} \mathrm{k}^{\mathrm{h}}$ eda $\cdot$, to slice, carve
cf. Klamath (Barker 1963: 313) qat', clear forest, cut down brush; ibid. p. 318: qet', clean off, scrape off, trample down > sqet'a:/sqet'a'/ scrape with a sharp instrument; Alsea tqi:sa, flour (Golla 1997: 166)

* ${ }^{\text {h }}$ es, perforate

W xise•, squirrel to chew/chop off outside of green burr to make it edible; cf. xusi, pine nuts
PK $\quad \mathrm{k}^{\mathrm{h}}$ esa', to make a hole; T k'esa', k'esu (pl.), to perforate
cf. Achumawi (Olmsted 1966:16) -anaqe $\cdot \mathrm{s}$, q-i $\cdot \mathrm{s}$, to break (inanimate agency)
*q ${ }^{\text {h }}$ et-a, throw solids; cf. *k'ete•t, one
W xEt-, throw; xita, to throw solids
PR ketaketa, scattered around

W xili, minnows
PCC se•lismen, snail; K, T se•lis(men), snail

* ${ }^{\text {h}}{ }^{\text {o }}$, striped skunk cf. *xos-a, air, blow

W xo•h, skunk
N-BW qoh, skunk
PCC, K, T $\quad \mathrm{k}^{\mathrm{h}} \mathrm{o} \cdot$, striped skunk
SP-M kow", kah'w, big skunk
*qºlo, hard dome shape; cf. *k'olom, cup-type basket; *xok, basket type; *qo(•)la, hide, buckskin; *kol-i, something joined, added on to perimeter
W xolom dipper; cf. xOm, concave; k'oles, hooves, claw
 thing)

* ${ }^{\text {h }}$ olo, sunflower sp.; cf. *k'ala( $(\cdot)$ l, flowers

W xolem, a little sunflower sp. which doesn't stand up high but is spread out (the seeds are pounded to make flour for bread, or browned to eat with acorn soup); č'araw x xolom, sunflower; me•m x̣olom, waterlily; cf. kolom(sek), wild sunflower; xolom, umbrella leaves; so•tos xola, Indian rhubarb leaves; xula, waterlily, xulu $\cdot t$, wild parsley; halat, wild grapevine
N-G kŏlŏm (khowi), sunflower; M kol-lum, kah-lahl, wyethia; C kâ-lâ-kâi, sunflower seed
PCC, K, TT $\mathrm{k}^{\mathrm{h}}$ olot, sunflower (Wyethia augustifolia ?) (yellow); cf. C, T, CC kulukulu, flower sp. (a lily ?); čo•loyčoloy, waterlily; č ${ }^{\text {h }}$ owlulu, waterlily; K kulu•kulu(č'alal), Johnny-jump-up (lily sp.)
*q ${ }^{\text {hon }}$, dry; cf. *k'on, clench, stiff
*q ${ }^{\text {hono-s (adjective), dry, dried }}$
*q${ }^{\text {hon }}$-ma (causative) (tr.)
W x̣On-, (to) dry; xonos, dry, poor; xonma', to dry (tr.)

N-M kon-no nawp, dried meat; BW xananop, jerky
PCC $\mathrm{k}^{\mathrm{h}}$ ono , dry, dried out; $\mathrm{k}^{\mathrm{h}}$ onos, is dried up; $\mathrm{k}^{\mathrm{h}}$ onma-, dry (tr.); $\mathrm{K} \mathrm{k}^{\mathrm{h}}$ ono-, dry; $\mathrm{k}^{\mathrm{h}}$ onma-, dry (tr.)
PR $\quad \mathrm{k}^{\mathrm{h}}$ onta, dry; $\mathrm{k}^{\mathrm{h}}$ onohtu, a dried up (person), wizened one
SP-M kon'-no', kŏn', dry
*q ${ }^{\text {h }}$ op, stripe; cf. *k'op, chop; *q'op-a, break with fingers; *q'op-u, cut off, slice

* ${ }^{\text {h}} \mathrm{o} \cdot \mathrm{p}$, striped, many stripes
*q ${ }^{\text {hop }}{ }^{\text {č }}$-, tr. (with mediopassive)
W xOp-, stripe, wiggle; xopča, to make one stripe; xo•p, to make many stripes; xupa, to make stripes, to stripe; DL xopora hara•, (the salmon) are striping along, i.e., the salmon are running upriver; xoportikuya, fish to want to jump back into the water
PK sutuma $k^{\text {h }}$ obnanta $\cdot$, ring-tailed; $\mathrm{k}^{\mathrm{h}} \mathrm{o}$-bnanta, striped; H-U $\mathrm{k}^{\mathrm{h}}$ opt $^{\mathrm{h}}$ unanta, escape
*q ${ }^{\text {hop }}$-u, cut off, slice; cf. *q'op, stripe; *q${ }^{\text {h}}$ apla, outer bark; cf. *k’op, chop; *q'op-a, break with fingers
W xup, cut, slice; xupus, that which is cut off, sliced, a chunk
PCC $\mathrm{k}^{\mathrm{h}}$ oba•, to cut off, cut one; $\mathrm{k}^{\mathrm{h}}$ obi/u-, cut up into pieces; T-U kop'či, small block of wood
*q'or, larynx, growl; *qor-i/u, grind; *k'ar-a, scrape; *k'or, scratch; *q ${ }^{\mathrm{h}}$ er, scrape
W xoro ta, to snore, to growl (make laryngeal sounds)
N-BW q'Ota'-, q'Ota-, snore
PR k ${ }^{\text {hora, larynx }}$
PCC, $\mathrm{C} \mathrm{k}^{\mathrm{h}}$ ara $\cdot$ mananas, cleared her throat
PK k'umurharo, growl (perhaps merged with *kim-u•r, rumble, roar)
*q ${ }^{\text {h }}$ os-u, seek luck; cf. ${ }^{\text {* }}{ }^{\text {h }}$ os, fog, steam
* ${ }^{\text {h }}$ os-i (nominal form)

W xos, charm, seek power; xosi, charm; se-x̣osuna', to seek good luck; xosuna', to make up after spanking; to seek power, to want sympathy, to claim as a friend or relative
PCC $\mathrm{k}^{\mathrm{h}}$ osup'iri, guessing game; $\mathrm{K} \mathrm{k}^{\mathrm{h}}$ osu-, play handgame, gamble; $\mathrm{k}^{\mathrm{h}}$ osi, handgame, grass game, gambling song
PR $\quad k^{\mathrm{h}}$ osi/u, to gamble; $\mathrm{k}^{\mathrm{h}}$ osi, handgame

W xos, fog, steam, gas; xosiha, to be foggy
PCC, T, R $\quad k^{\text {h }}$ os, fog; $k^{\text {h }}$ os?a-, foggy
*q ${ }^{\text {hosos, lungs; cf. *xos-a, air, blow }}$
W-M ho'-shă, lungs (probably represents [xoso]); cf. hosopa, hosok, be light in weight; xo•sa, be bloated
N-W $\mathrm{k}^{\mathrm{h}}$ os, lungs


SP-M kus'-sol, kos'-sol, lungs
cf. Klamath (Barker 1963: 508, 507) t'oso $\cdot \mathrm{q}$, lungs; tsa $\cdot \mathrm{k}$ ', be light (in weight)
*qud, bend, squat; cf. *xed-i/u, fart; *kuk, bend; *k'uwi•l, bent
W xudu ra, to move in a sitting position; xuta•, to slide on behind; xutuł, mountain beaver; cf. č'u•da, to sit on haunches
NGT-M kō-too, ch, C ko-túhl, beaver
PR $\quad k^{\text {h }}$ udi, to bend forward; cf. H-U hudhu $\cdot d i$, to squat; PK hudhu duro, crouched The last two P forms may point to a variant in $\mathrm{x}_{\mathrm{x}}$
cf. Klamath (Barker 1963:332) q'oč', bend; q'oč'a, bends (intr.)

* ${ }^{\text {h }}$ ur, dislike

W xure, to grudge; xurp'ure, to be jealous of each other
PCC $\quad k^{\mathrm{h}} u w c ̌ i$, to hate (anything, people, food), be sick of it, oversaturated, tired of; H-B khyče-, hate; T-U ku•čis, he hates food, tired of it; H-U kuyči, not like a food
*qhy ? *q'uy ?, sprout
W xuyiha, to be fragile like tender shoots; wines xuyit, a special spirit in the head, one who makes you think, see, or hear, a guardian accompanying spirit, a spirit that is with you wherever you go (cf. "the germ of an idea")
PK k'uya, the point of an acorn, where the acorn opens up, where it germinates

## $q^{\prime}$

*q'a- ? *q'i- ?, cloud; cf. *q'a•q, mental clouding; *x̣os-a, air, blow; *q'i(•)r, dirt (earth)
W q'a•h, cloud; q'a•ha, to be cloudy; cf. xahi•la, to become dusk
N-H q'aha, cloud; S q'ah, cloud; BW qaha', cloudy
PCC k'i•r?a, cloudy; k'i.r, cloud, sky
PR k'i•r, cloud
cf. PY *k’ylyj ?, cloud (Callaghan 2001: 323)
*q'aba, chin, jaw
W q'aba, jowls, jawbone; cf. qabah, cheek(bone); xaba, jaw(bone); xabah, cheekmeat, e.g., hog jowl; xababa, base of the neck; "jaw" in McCloud dialect
N-W q'aba, chin, jaw (whole face ?); C ká-ba, face
PCC k'aba, chin; M jaw, chin
PR k'aba, chin
cf. PY *?aw'as, chin (Callaghan 2001: 319)
*q'al-i ?, charcoal (285.); cf. *wal-u, flame, lightning
W q'ali, charcoal (also k'eli)
PCC wali, hot coals; M coal, charcoal (perhaps *q' > w under the influence of *wal-u, flame, lightning)

PR wali, glowing coals
cf. PMy *q'al, *a:q'a?1, with reflexes including: red-hot coal, charcoal, coal (Brown 1990: 18)
*q'an, wing, armpit; cf. *k'alaq, feather; *q'an, wide
W q'an, wing, armpit; cf. q'ana•, to be wide; *q'al, feathered; q'a•h, cloud; kan, legs spread; qanal, in bloom
PCC k'an wing; kan, armpit; K k'a(•)n, wing; kan, armpit
PR $\quad \mathrm{k} \cdot \mathrm{a} \cdot \mathrm{n}$, wing of a bird; kan, armpit
cf. Alsea ql-ql, armpits (Golla 1997: 164)
*q'an, wide; cf. *q'an, wing, armpit
W q'ana', q'anal, to be wide
PR k'ani?, coarse coiling style
*q’an-łala, *qan-sala ?, flying squirrel ?; cf. *q’an, wing, armpit; *łala, stink, smell rotten; *sala, arm, shoulder
W q’anłalas, flying squirrel (lit. armpit stinking, folk-etym.)
N-C ka-ni=tlět, gray squirrel, jumping squirrel; cf. G-M choos'-kah-nah'-laht, hummingbird
PK k'ansalaymen, bat (axillary smell); (Whistler 1976e from Merriam);
T k'ansalay, bat
PR k'ansalay, bat (Whistler 1976e from Merriam)
*q'ap-a, be trapped; cf. *k'ap, move stones
*q'ap-ma, to trap (tr.)
W q'ap, trap (n.); q'apa, to be tangled up (as rope), get caught; q'apma', to catch in a trap
PCC k'ap, to be caught; k'apa', caught, get caught on self; k'apma, to trap; K k'apta, caught; k'apmaro, caught, hooked together
PR k'apta, caught; k'apas ču, I caught it
cf. Alsea qa:x̣(a)-t', net (Golla 1997: 164)
*q'a•q, mental clouding; cf. *q'a- ? *q'i- ?, cloud; *qaq, indistinct color ?; *q ${ }^{\text {h }}$ as-i•l?a, have impaired vision; *k'ilap-?a, afraid; *xin-a, sleep; *xah, *xir, dizzy; *q’id-u, forget; * $q$ ' $i \cdot 1$, dull
W q'a q , lose one's mind, crazy, forget, fail, lose consciousness, devil; q'aqełta, to be forgetful, faint, know nothing, oblivious; cf. q'i.q, tantrum, angry; k'ide', bray (of donkeys); k'idi ra, squeal with laughter, giggling
N-W xa•xa, q'a•xa, drunkard; BW k'ahala', crazy; qaqa-, get drunk; qopa-, (get) drunk
PCC $k$ 'a $k$ ki, to refuse (to give away, a request); k'ak-, hot (primarily of weather)
PK k'akma me•m, hot water, beer, whiskey
PR k'aka, a burn (on body, clothes)
PT-U k'akma čoyis ču, I've got fever

The W and N forms and the first PCC form, along with related PW forms, point to a "mental failure" or "mental clouding" meaning. The P "hot" and "burn" forms may have arisen via an expression of the effect of hot weather on the mind, particuarly in light of the PK use of "hot" for alcohol and the W related term q'i.q, tantrum, angry, which indicates a kind of mental hotness.
cf. Klamath (Barker 1963:330) q'e•gi, be absent, lacking (cf. q'ay, no, not); sneq'e•gi, loses something; cf. Alsea q'aykw-, to be crazy (Golla 1997: 164)
*q'aya, older woman
W p'uqayah, old lady, grandmother, father's mother; cf. PW *p'ot, old woman; *p'oq, woman, wife; *p'oqi-ta, woman
PCC k'a•y, old woman; k'ayaba, women; k'a•yba, old women
PR-U k'ayaba, lot of ladies; cf. Whistler's PR k'asas, old lady, and PK k'asal, old lady
Whistler 1980: 268 reconstructed *p'oqay. However, only W reflects the combination of the two roots *p'oq and *q'aya, older woman
*q'ay-i/u, walk; cf. *har-a', to go
*q'ay-s-a, walk fast (intensive)
W q'aya', to walk, go, hike, stroll; q'ayuma•, to cause to/let walk; cf. k'aysa, to walk fast, do something fast; k'ayuma', to make something go fast
PH k'ayi/u-, walk; cf. PCC -k'ayu, to want, to be about to, to start to (auxiliary base)
PR k'ayi/u-, walk; k'aysaro, walking faster
*q'ede, arm
W q'ede, arm
$\mathrm{N}-\mathrm{Ha}$ kéde, arm
PCC k'edil, wrist; K k'ede(•)k'ede, wrist; T k'edek'ede, wrist, ankle?
PR-U k'edel, wrist
*q'ep-, dip
W Tol-q'ipča, Zol-q'epča, to dip liquid; cf. q'opuma•, to dip water, make someone take a bath; q'upa', to wash, bathe, soak clothes
N-BW q'Ohpa-, swim
PCC Talk'epi/u-, to dip out; K Tolk'epi/u, dip (out)
PR k'epo-, dip (up, out)
*q'eq-a ?, *k'eq-a ? hiccough ? gag ?
W q'e qa , to gag, to try to vomit unsuccessfully; q'i•qa, to try to force with exertion while defecating
PK č'ika•ro, hiccough
PR-B čeka, to hiccup
Irregular correspondence due to sound-symbolism

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*q'id-u, forget; cf. *q'a`q, mental clouding
N-BW kLidu-, forget (probably represents [q'idu] or [qxidu])
PCC, K k'idi/u-, to forget
PR k'idi/u-, to forget
*q'i·l, dull
N-S q'eelca, dull
PT k'ill?a, dull
PR k'i·r?a, dull ?; k'i·l, dull (not sharp)
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*q'ilaq, dirt (earth) (collected ? piled ?); cf. *q'i(•)r, dirt (earth), ground; *wilaq,
*welaq, earth; *hul, cave in
W q'i•laq, cemetery, graveyard, grave, dirt (earth) (cf. q'il, smear)
PR k'ilak, silt

* ${ }^{\prime}$ 'i(•)r, dirt (earth), ground; cf. *q'ilaq, dirt (earth)
W q'i(•)r, mud, dirt
PCC k'ir, ground, dirt; K k'i(•)r, ground, earth
PR $\quad \mathrm{k}$ ' $\cdot \mathrm{r}$, fine, powdery dust, clay?
SP-M kā-ret, land
*q'oba, red paint
N-G k'oba, blood-red paint
PCC k'oba, paint (of any color); P, H, T-B k'o ba, ochre
SP-M ko'-bah', red paint (of red earth or rock)
Unless the N form represents [ q 'oba], this may be borrowed.
*q'oł, borrow
W q’uła•, to borrow (also q’ała•)
PCC $\quad \mathrm{k}$ 'ołe $\cdot$, $\mathrm{K} \mathrm{k}^{\mathrm{h}}$ ołe $\cdot$, to borrow
PR k'ołey, to lend
*q'oł ? *k'oł ? seed plant sp.
N-G k'ôł, a grass with white blooms and knoblike pods
PCC k'oł, seed plant sp. (prob. Compositae); K, T seed plant sp. (Achyrachaena
mollis ?)
If $N$ k' does not represent [ $\mathrm{q}^{\prime}$ ], the form may be borrowed between N and P .
However, the existence of W k'ołma', to pound acorns fine, may be evidence of a
larger word family.
*q'op-a, break with fingers; cf. *k'op, chop; *q ${ }^{\text {hop }}$, stripe
W q'Op-, q'upa, pick off tips of grass, of branches, twigs; xan-q'upal, to break
off; q'o•pa, bobtailed
$\mathrm{N}-\mathrm{S}$ qepa, cut

PH k'opa•, to cut or break off; k'opt ${ }^{\text {h }} \mathbf{u}$, cut off, broken off; k'upum, finger; K also toe
PR k'opt ${ }^{\text {h }} u$, half, cut
*q'or, grab a handful; cf. *koro, net
W xan-q'ura', to pick grass in fistfuls, to tear off grass or clover; cf. q'Op-, pick off tips of grass
PCC $\quad k^{\prime}{ }^{\prime}{ }^{\text {h }}{ }^{\mathrm{i}} / \mathrm{u}$, to grab up, gather; cf. k'uru $\cdot \mathrm{t}$, new growth twigs on a tree in spring
PR k'ori/u-, grab a handful (like grass, etc., without picking out things individually)
*q'ot, split?
W q'ot-, strong, stout, forceful, loud, hard, deep, brave; q'ut-, much noise, of the voice; ma•t q'ute, to have one's ears displeased; cf. qOt-, quta', to get hit
N-S khotyu, split
SP-M kot-toot, cut him
cf. Alsea qta:w-, qtu:-, to dance the war dance (Golla 1997: 164)
*q'o(•)t-7a, dirty; cf. * ${ }^{\text {hatat, }}{ }^{*} \mathrm{q}^{\text {h }}$ ot ? wet
W q'o.ta, to be dirty
N-S q'oota, dirty
PH k'ot?a, k'o•t?a, dirty
PR-B k'o•t-a, to get dirty
*q'učul, worm sp.
W q'učulah, potato bug
PK k'učhay, small black flying beetle sp. ?; k'uuč'ay, worm sp. smaller than fishworm, red (birds dig them out when it rains)
PR k'oč'ol, k'očol, acorn worm
*q'uh-i/u, cough
W q'uhe, q'uhi/u-, cough
N-W qoha', to cough; BW q'uha'-, cough
PCC, R k'uhi/u-, to cough; cf. K wohi/u-, to cough
*q'un, moldy, muddy
W q'une•, to be moldy, water to be muddy or dirty; cf. W-M kon, koon, koo'ně, blue
PH k'un?a, muddy, roiled
PR k'un, moldy (acorns, etc.)

[^1]N-W -y, genitive (in: puy, third person singular genitive)
$\mathrm{P} \quad-\mathrm{y}$, pronominal genitive and inalienable possessive case
PCC $\quad-\mathrm{y}$, genitive kinterm case inflection
*-ro ? *-r ?, subordinating suffix of causal or temporal anteriority (424.8)
W -r, subordinating suffix of causal or temporal anteriority ("because")
PCC -ro (_V/-taro _C) (+/- aux. -bo/be), functions to indicate related predicates sequential in time, or simultaneous predicates where one is background to the other
*-s, nominalizer (423.37)
W -s, generic aspect
PCC -s, ongoing or completive aspect (i.e., non-inceptive aspect, neutral with respect to tense); -s, -(s)tu (?), nominalizer
cf. Nez Perce -s and Sahaptian -š, both nominalizers, Klamath -s, noun suffix, and Molala -s, which forms nouns from verbs and is used in underived nouns as a general suffix of concrete nouns, and Mutsun -s, nominalizer, instrumental (Berman 1996: 11-12, 25)
*-s, objective case suffix for singular second (and first ?) person (531.321)
See: *mis, second person singular objective
*-s, see *-h
*sa-, *sas, light (source ?); see also *san-i, day, *say-i/u, light
W *sa, light: sa(•)s, luminary, sun; say, light; san, day; sah, blurred; satawil, sunstroke; sawa•łuq, glow worm; satu•s, stars
PH sa', eye; cf. H-B sat'a, to look for ?
PR sas, eye; B sa, eye; cf. B saso, to look for
cf. PY *sasa-, eye (Callaghan 2001: 318)
Jespersen (1946: 163) mentions a Malay taboo on the word for "eyes" during hunting season and compares Irish súel, "eye" from the Proto-Indo-European word for sun [*saw-el, *saw-en]. Something similar may have occurred in P.
*sak, pine sp.
N-C sák=mi, yellow pine; T-M sahk'-me, Ponderosa pine (Pinus ponderosa); sahk-me' bah'-ke, forest (timber brush)
PH sakmu tho k , Ponderosa pine? Douglas fir? any tall pine?
PR čusak, pine (any kind ?); U ču•sak, evergreen trees
The Nomlaki recordings are unreliable. Unless $k$ represents [ $q$ ], the form could be borrowed. Whistler 1977a suggests that the P forms are borrowed from Miwok, citing PMie *sak•y, digger pine. This is supported by the fact that the PH and PR forms are not closely related. The N form could have been borrowed from P or vice versa after borrowing from Miwok. Cf. W t'aqa•smi', fir tree, Douglas fir or spruce
*sa•l, pale; cf. *sala, leaves, foliage; *tal, lack of color
W tum sa•lala, face to be pale
PK sa•lthuro pi bo•s, he's pale (getting blue-colored, whitish, don't look too good)
*sala, leaves, foliage; cf. *sa•l, pale
W sala, leaf, leaves, dry leaves, leaves green and on the trees, falling dry leaves, dry leaves and on the tree, turning autumn leaves; cf. salal, be/turn yellow, of leaves; being/turning pale of leaves; to turn fawn-colored, said of a deer in the spring; to turn reddish brown (to lose original color); salal ha.w, red fox; salal lubeles, red wolf; cf. sah, blurred, probably originally "lose substance" - cf. sali•q, thin; xalat, edible greens sp.

PCC sala, leaves (of oaks, cottonwood, etc.), foliage, leaf on tree; K leaves on the ground, leaves all bundled up, foliage (lots of leaves and plants, leaves altogether); cf. CC sa $\cdot \mathrm{l}$, sweet, big clover; K sa•l, California burclover (Medicago hispida); T sa $\cdot 1$, sweet clover sp.
PR-B sala, leaf; R sal, sweet clover sp.
*sala, arm, shoulder; cf. *sat, hold in hand
W salas, back (bodypart), shoulder(s); scapula, shoulder blades
N-W sala, arm; T-M sal-lah', shoulder
PH sala', arm
PR sala, arm (the whole thing)
SP-M sol-lah', sō-lah', arm
*san-i, day, daytime; cf. *sa-, *sas, light(source ?); *say-i/u, light
W sani, daytime
N-BP salat, moon
PCC san, sun; sana $\cdot \mathrm{r}$, moon; saniPa, daytime; wenem sani, middle of the day; sanisani, every day; K san, sun; sanibo, daytime
PR san, sun, month (lunar); sani, daytime; sanar, moon
SP-M sun', sahn', sun; sun-nahr', sahn'-nar, moon
cf. PMi *synty, *syt•y (*syt ?), eye; PCo *hinte, hi(•)n, eye; PU šynty, eye; PM *hi(•)n, eye, (small) seed; PMi *hi $\cdot \mathrm{s}$, PCo *(h)is-men, PU *hi•s, sun (Callaghan 2001: 318, 322)
*sapasapa, oriole
W sapasapat, sapat, oriole, red-breasted
NT-M sap-pah'-să'-put, oriole (Icterus)
PK sapa•sapa, Bullock's oriole (or any oriole)
PR č'apč'ap, oriole (Bullock's or any) (Whistler 1976e, from Merriam's chahp'chahp, oriole)

## *saq, spear

NT-M sahk', spear (for fish); paw'-sahk, poker [fire-spear]; ahn-sahk, cache for acorns (built on posts)

PCC sak, long, straight stick; K gig (noun), fish pole, shaft (of a spear)
PR sak, stick
cf. W xaq, hit or punch with fists; Merriam lists for W: sak-lub'-bit, Orion, which may possibly contain saq, spear
*sa•q, blood; cf. *sa $\cdot q-k$ 'ur- ?, rainbow
W sa•qa, to bleed; sa•q, color of blood? blood stain? (obsolete); cf. sa•q, colored, colors
N-S saaq, blood; B sakat $\cdot \mathrm{c} \overline{\mathrm{i}} \mathrm{L}$, brown bear; T-M sah'-kah, raw
PH, R sa•k, blood
SP-M sahk', blood; cf. sah'-kan-nan'-now, robin
*sa•q-k'ur- ?, rainbow; cf. *sa•q, blood
W sa $\cdot q-k u w c ̌ i, ~ a ~ r a i n b o w ~ s t a n d i n g ~ c u r v e d, ~ a r c h i n g ~ o v e r ~(k u w-, ~ b e n d, ~ c u r v e ; ~ c f . ~$ k'uwi $\cdot 1$, eyebrow); cf. sa $\cdot q$-hikayi, rainbow
NT-M sah'-koo-lah-mah, rainbow; C ku-lá-ma, rainbow
PK sa•k t'uri•l, rainbow; H-B sakč'orel; T-U sakč'ori•l
PR-B sakč'orel, rainbow
cf. Nisenan (Uldall \& Shipley 1966: 229) Tole•sykyn, rainbow; with the second part of the PW form, compare these UA forms for "rainbow": Mayo kurués, Yaqui kurúes
*sat, hold in hand
W sač-, hold, carry in arms, embrace, hold in lap < sat-, hold, carry, lift (smooth, flat objects ?); cf. sataq, pestle
N-B cot•ok, pestle
PCC sat-, to grope for, feel around, search around for with hand
*sa•w, acorn bread
W sa•w, black acorn meal bread, made with red dirt
N-G sau, acorn bread; T-M sow, sah'-o, meal baked on hot stones
PK sa•w, acorn bread; H-U black acorn bread
PR-U sawa, big clods of dirt
cf. Maidu (Shipley 1963: 216) sawó, buckeye; Central Yana sau(na), acorn bread (Sapir \& Swadesh 1960: 149); Karok sárA, bread (Bright 1957: 378)
*say, maple (big-leaved)
W-M si'-e-choos, si'-me, maple
NT-M si' $\overline{\mathrm{i}}^{〔} \mathrm{e}-\mathrm{ko} \overline{\mathrm{c}}^{〔} \mathrm{k}$, maple (Acer macrophyllum); si'-kōk, skirt of maple bark worn by women; G-M si'-kōk, maple; C saí-kok=mi, maple
PK, TT saysay, big-leaved maple
PR say ?, big-leaved maple
*say-i/u, light; cf. *sa-, sas, light(source ?); *san-i, day; *č'ay-a, to light a fire
W saya', to (turn on the) light; sayi, light (n.); sayuna•, to have torch-light; nomway sayi, North Star
PCC sayu, light, put the light on; sayi, light (n.), lamp; K sayi/u-, light up
*sede, coyote
W sedet, coyote, dog
N-B sedet, coyote
PH sedew, coyote
PR sedew, loon sp. (sounds like coyote)
*se k , root, especially basket root; cf. *č'e k , rope
W se-k, root
N-S sek, root; T-M sā ${ }^{`} k$, root, pine root
PCC se•t, root (for baskets); K basket root; K , T tulare root (the root)
PR se•t, tulare root (plant and root); the ground material (buff), runs around and around on baskets, around the willow basket sticks which run lengthwise in the coiled baskets
SP-M sětch', root
*seke•, *sekey, pubic hair, perhaps body hair in general; cf. *č'ekey, hair
W sekey, body hair; seke, pubic hair; sekeya, to be pubic hair
N-BP s•eke•y, body hair; T-M ket-sek'-ket, beard
PK ye•sekey, pubic hair (woman's); T sečey ?, pubic hair; H-U ye•seke, man's pubic hair; H-B sečey, pubic hair; sečhey (seč'ey) pubic hair (man's); L-U seče', pubic hair
PR-B sečey, pubic hair
SP-G tscheseki, beard
*sel, side, sides; cf. *sem, hand, finger; *ser, crosswise
W sel, both, all; selet, both, selet harma, to surround, selet le•t, both, on each side; me•m selet, edge of water where it flushes up on the ground; seletin hara', hair to part itself
PK puysel, east side, the people in the east; nomsel, west side
*sem, hand, finger; cf. *sel, side, sides; *ser, crosswise
W $\quad \operatorname{sem}(\mathrm{g})$, se• (p), hand, finger(s)
N-W sem, hand, fingers
PH, R sem, hand
SP-M sem, hand, fingers
cf. $\mathrm{PM} *$ jim, arm (elbow to shoulder) (Callaghan 2001: 319)
*sen, digging stick
W sen č'u•s, digging stick; senmi; the brush digging sticks are made of (Ceanothus or Cuncatus)
NT-M sen', digging stick
PKT sen, digging stick

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*se \(\cdot q\) tu, chief?
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N-K sêktu, chief
PCC, R se•ktu, chief, captain

Most likely a borrowing between N and P and ultimately from a Miwok language (cf. Mip ceka-, chief (Callaghan 2001: 321)); note, however the PW suffix *-tu( $\cdot$ )
*ser, crosswise, twice; cf. *sel, side; *sem, hand, finger
W ser-, crosswise, twice, in two directions
PH, R serpołta, six (twice three); PT serth ${ }^{\text {h }}$ upus, wade across
*ser-panoł, six; cf. *pano(•)ł, three; *ser, crosswise, twice
W serpanuł, sepanuł, six
N-DK se-panoL, six
PH, R serpołta, six
*sew, *siw, pack
*siw-i, testicles
W siwa•, sewi/u-, to pack, stuff, sack; siwiy (g), siwih (p), testicles
N-BP sewet, testicles
PH-B siw, food-pit; K siwi•, testicles
PR sewo $\cdot$ ro, putting things away, caching
*si , tooth, teeth, seed(s); cf. *siwi, testicles, under *sew, *siw, pack
W si , tooth, teeth, seeds, pits
N-H si , teeth
PCC si $\cdot$, teeth; K teeth, fangs; T-U si•, seed
PR si?, tooth
SP-A sii, teeth
cf. PMi *ky (•)t, *kyt•y; PCo *si(•)t, *sit•e, PU *ky(•)t, *kyt•y, tooth, teeth (Callaghan 2001: 318)
*sič-i/u, drill
NT-M se'-chah', fire drill block (of cedar, Libocedrus); C sí-chu, fire drill
PCC sič'i/u-, to drill; K sičh $\mathbf{i} / u$ -
May be borrowed between N and P , but is part of a larger word family with W sEr-, twirl (cf. PW *sir-i, copulate) and PW *sis-, squirm
*sid, move light-weight things
W side•, pick, gather, bring in little, light-weight things (e.g., pine needles); sidel, to be blown away, blown off the ground; cf. sikča, to sweep; di(•)t, wipe
PCC si•da, to clean off dust, leaves, etc. (with hand, not with brush or broom)
*sik, polish
W sikča, to sweep; si•kus, broom
PT-U sikohos pi?, he's polishing something

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*si
NT-M se'-ik, barn owl (Strix)
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PK, T, R si•k, barn owl
PR-U si $\cdot \mathrm{k}$, screech owl
SP-M she'-ik, barn owl
Possibly borrowed between N and P
*sil, slip
W *sil, smooth, slip; siloq, smooth, slick; cf. tilo $\cdot \mathrm{qa}$, shine; suluqta, sliding, to slip; *sul, slip, slide; xalila, to be slippery, slick; sali•qa, be flat, thin
PH-U siltokoparo, to slip
cf. Central and Northern Yana (Sapir \& Swadesh 1960:179) -xalili-, smooth
*sil, black; cf. *č'il, black
W silel, to be blind
PCC, K sil-, black
PR-B selti, black
SP-M sil-le'-ah, black
*sili, gall
W silih, gall
PCC sili, gall; K gall bladder
PR-U silli, gall
*sip-čh $-u$, straighten, make stiff
W sip-, pull off, out; pomin sipču, get tangles out (esp. of hair); cf. xan-xipča, to pull off, of cloth
PCC $\operatorname{sipt}^{\text {h}} \mathbf{i} / \mathbf{u}-$, stiff (like untanned leather, joints, muscles, anything not limber)
*sir-i, copulate; cf. *sis, squirm
W sire, copulate
N-G si•pa, vulgar word for sexual intercourse [ $<$ *siripa]
PK sil-, si•r-, copulate; H-U, siri-
SP-V ciripisi', copulate
*sis, squirm; cf. *sir-i, copulate
W sis-, squirm; pat-sise, to wriggle, squirm, working themselves out of a hole (rattlesnake, otter)
PR sisamen, bigger (lizard), blue underneath, which was killed for poison
*sob-čh-u- (with mediopassive), *sob-a, pull off; cf. *č'ob, skin peels off; *thup-u ? *thub-u? pull out
W supa, to take off, slip off (as clothes); pat-sopča, pat-sopču-, to slip out (as heart out of dead body, tr.); sopna•, to take off all clothes (to bathe or swim)
PCC soba', to come off, pull off; sobu, to pull off (pl.); sobal, to come off; sobt ${ }^{\text {h }} u$, to come off; sobi, to pull off lots; K sobt ${ }^{\text {h }}$ uro, anything come off
PR soppitta, taking out, cleaning out
*soč- ?, badger
W patsočit, patsačit, badger; memsačit, beaver (folk-etymology, cf. pat-, outside; mem, water; sat-, be wet, or sat-, to carry)
N-C sá-châk, badger; cf. T-M kok-saw'-chit, nuthatch (Sitta aculeata) (meaning of kok- unknown)
PCC, K, T čotom, badger
cf. Puget Salish šáw' ${ }^{w} \neq$, mountain beaver (Hess 1976: 456)
*soh, *so $\cdot$, cross-sibling
W soh, sibling; net-soh, my sibling; soheres, relation; so ha, to have a sibling of the opposite sex; so•has, dead sibling of the opposite sex; so•hap'ulel, a man and his sister; cf. sO', kin, show affection (especially to consanguineal kin); so, kin, especially siblings; somo $\cdot n$, samo $\cdot n$, brother-in-law
Nnoe-W -so(h), brother?; so(•)s, twins; cf. G sômôn, brother-in-law; T-M net sum'-mon, husband's sister
PCC nay so', my sister; K so•hona pel, two sisters; pipel so'honap'ita, them two brother and sister; nay so', my sister(s) (younger or older)
*sokok, cocoon rattle
W soko kus, cocoon rattle
PH soko kay, rattle; H-B sokokay, cocoon
PR sok'ot, sokot, cocoon rattle
Irregular; possibly a loan
*somVk, thighs, hip
W somik, hip
PH somak, hip; H-B, T-B somok, hipbone
Irregular
*son, rock; *sos, big rock; cf. *sono, nose
W son (g), rocks; sos, big rocks; suna; to be rocky
N-BW son, rock
PK so•s, boulder; sos, sandstone, rough rock of a special kind used to grind down beads to make a grinding rock; black, glassy rock, obsidian ?
PR-U sos, big rock
SP-A conoi, stone
*sono, nose; cf. *sub-u, smell; *su(•)t, inhale; *son, rock
W sono, nose ( $<\mathrm{sO}$, stone, rock, nose, beak, i.e., bare protruberance; cf. *sO, denuded; *sOn-, shed feathers; sOp, undress, flay; sOt, pull off hair)
N-W sono $\cdot$, nose; PS sono
SP-M sun-no', so-naw, sō-naw, nose; A sonom, nose
Note the relationship between "nose" and "rock" which is also found in IndoEuropean. PIE *nas-, "nose, nostril" is reflected in Old Norse as nes "promontory." Perhaps an underlying meaning of "outcropping."
*soq, thing
W soqo, unknown kind, whatever kind, strange, eerie, pejorative (probably from so, unspecified + ?oqti, identity, kind), classifier of uncertainty; soqot, whatever kind of thing (it is) $<*_{\mathrm{s}} \mathrm{O}$, ancient, unknown; cf. suk, perfective; -so, temporal anteriority
N-W čəpasoko, grandfather, great-grandfather, gpb [grandparent's brother], spgrandfather [spouse's grandfather] ("-soko is clearly a suffix added to the term now restricted to mother's brother, etc., in order to distinguish G+2 'grandfathers.'" Whistler 1980: 117-119)
PH -sok, instrumental, locative (e.g., PCC ła•risok, parching basket)
cf. Yurok so $\cdot \mathrm{k}$, noun, sort, thing (Robins 1958: 250)
*sow, shrub sp.
W sow, Indian file, a kind of plant
PCC, K, T sow, chamise
*sub-u, smell; cf. *su(•)t, inhale; *sono, nose
W sube $\cdot$, subu-, to smell (tr.)
N-PS su•ba, to smell (tr.)
PT-U subu ki, cigarette
cf. PCC, K th $u \cdot b i / u-$, smell, stink; PR the ${ }^{\text {h }}$-bu-, smell, stink; PH-B somsomi, smell; T-U sumsu•mu?, smell this (imp.); PR-B somosomoho, to smell
cf. Puget Salish sub(u), smell (Hess 1976: 448)
*sud-u, to smoke something
W su•da, to smoke (tr., as a trap to kill odor); sudu•ra, smoke to come out, to be smoking (intr.); sudu•ruma $\cdot$, to scorch; xun-su•da, to put pipe in mouth and suck
PCC sudu, to smoke something/someone out
*suku, dog
W suku (g), dog
N-W suhkut, dog; BW sukut
PH-U suhkut, dog
SP-V tcuku', dog
Diffused throughout California. cf. e.g. PMis *čuku-, dog (Callaghan 2001: 325).
Whistler 1977 suggests that the SP form is borrowed from Miwok
*sul, blanket, cover
W sulaq, suloq, blanket, bedding (perhaps $<$ *sul, slip, slide)
PCC su•l, floor; K floor covering (rug, skin); H-U blanket or cover
PR-B su•ł, mat
cf. Alsea cu:lqw, blanket (Golla 1997: 161)
*sumu, sugar pine
W sumuhmi', sugar pine (with -mi•, tree)

N-C sú-mu, sugar pine nuts; su-mú=mi, sugar pine
PCC sumu ( $\mathrm{t}^{\mathrm{h}} \cdot \mathrm{k} \cdot \mathrm{k}$ ), like redwood, but smaller, cedar; K T sumu, sugar pine
cf. Nisenan (Uldall \& Shipley 1966: 229) sumu', sugar pine
*sunu, nest
W sunus, nest, (snake) den
N-G sunu, bird's nest
PH sunu', nest
PR-B sonu', nest
*surut, strap, tumpline
W-C surut womulmit, hair-belt woman; cf. sub, unravel string, twine; su•r, parallel?; č'u•ra, to carry a lot in a lifted lap of apron or dress (cf. č'ur, spawn)
N-B cūt, burden net; T-M soot', carrying band for head
PCC suruk, packing strap; surut, carrying strap, tumpline; K surut, burden net, pack net (carried on back)
*su(•)t, inhale; cf. *sub-u, smell; *sono, nose
W xun-su•da, to put a pipe in the mouth and suck; M poo'-roo-soo'-tă-mus, lungs ["breath inhalers"]
PCC sutu $k$ ko, to inhale (sg.), to cure by sucking; su•tko, to inhale (pl.), puff (pl.); K sutu $\cdot \mathrm{ki}$, to inhale, suck in
*sutu, tail
W sutu, tail
N-W soltu, tail; H so tu
PH, R sutu, tail
SP-M soo'-too, tail
*suy-u, slide
W suyewilna•, to slide, ride on sled; suyu $\cdot q$ ča, to slide (*sOy-, slide, shuffle, probably from $*_{\text {sO }}$, denude(d); cf. sayawil, to slip; se-soyokmes, type of dance; *sul, slip, slide)
PCC suyu•to, slide (down, as a pole, on your rear, on your feet in snow, etc.)

## t

*-t, objective case suffix for kinterms and pronouns (531.322)
W -t, objective case suffix with inalienably possessed nouns, third person pronominal root pi/pu and hewe $<$ ?e, third person proximal root; cf. -t, particular aspect
PH -t, objective case suffix on kinterms and pronouns
*-t, inalienable possessive suffix for first and second person singular, perhaps originally identical with *-t, objective (531.34)

See: *ma-t, second person singular inalienable possessive; *ne-t, first person singular inalienable possessive
*-t-n, alienable possessive suffix for third person singular pronouns and kinterms (*-t, objective $+{ }^{*}$-n, ${ }^{*}$-no, genitive)
W -tun, alienable possessive suffix for third person singular pronouns and kinterms
N -tun, alienable possessive suffix attested for third person singular and one plural pronoun
PH -tno, kinterm alienable possessive suffix
*-t-in ?, kinterm locative case ? (531.36)
W -in, locative
PH -tin, kinterm locative
*-ta, human classifier ? (511.2)
See *p'oqi-ta, woman and *wi-ta, man
*-ta, subordinating suffix (424.9)
W -ta, subordinating inflectional suffix, indicates temporal anteriority or simultaneity which is conditioned, dependent, or resultant, and marks the verb as dependent syntactically, translates as "while, during, after, when, as"
PCC -t, subordinate object form of -ro (?); PK, PCC -ta, participle (consonant stems) (Whistler 1986)
*tah, father; cf. *ta-( $\cdot$ )n, father; *teh, *te• ? child ?
W -tah, spouse's parent, child's spouse; ta•ta, father (voc.)
N-H ne(•)t tah, father (my); N-W mi-tah, father (voc.) (Whistler 1980: 243)
PCC tah, father; ta $\cdot \check{c} \mathbf{c} u$, my father; K tah, father!
SP-M tah', father
cf. Tututni -ta?, father (Golla 1976: 219)
*tahal, tongue
W tahal, tongue
N-B tahal, tongue
PCC tahal, tongue; $K$ taha $\cdot 1$
PR tahal, tongue
SP-M tah-hahl, tongue
cf. PYnim * $t^{\text {h }}$ alxat ${ }^{\text {h }}$, tongue (Callaghan 2001: 319)
*tal, lack of color; cf. *sa•l, pale
W talal, to have changed color, be faded, be pale, turn (of leaves in the fall), to have turned (of leaves), to lose color like a dress that fades
PCC taluk, clearing (on a hillside)
*ta-( $\cdot$ )n, father (with kinterm absolutive suffix *-( $\cdot$ )n); cf. *tah, father
*ma-ta- n , your father
W ta n, father; ta na, to father, to have a father, to make a father; ta nit, father, the one who fathered, sired; nettan, my father; mata•n, your father; ye•ta, father (addressive)
N-S -taan, father; BW -tan; N-W tahan, father (Whistler 1980:267, Noema dialect; cf. nahan, mother, under *ne•-n)
PCC ta $n$, father; mata•n, your father; K ?uy tan, his father
PR tan, $\mathrm{t}^{\text {h }}$ ančh i , father; tanč ${ }^{\text {h }} \mathrm{u}$, naytan, my father
SP-M mah-tahn, your father
*tapl-, clover sp.
W tapleh, a dry, edible clover
PCC taplan, clover sp. (smaller than sa•l); T clover sp. (big, dark leaves)
*taqa $\operatorname{taqa}$, scorpion; cf. *daq, burn
W $t^{\text {haqaqa }}{ }^{\text {h }}$ aqat, taqa taqat, scorpion; t'aqa•t'aqat, black widow spider; cf. taq, slash; tah, sharp
NT-M tah'-kwaht', scorpion
PCC, T taka•taka, scorpion; K takakwayt (Whistler suggests borrowing from Nomlaki); taka•taka (Whistler 1976e from Merriam)
PR taka taka, potato bug (not centipede)
cf. PMy *tya:h, with reflexes including: knife, obsidian, blade, sharp stone, a kind of caterpillar with spines that hurt if they penetrate you, nettle with thorns on little leaves, sharpen, slice; Lake Miwok táhti, a round, featherless arrow shaft which is pointed at the end; Zoque (Rayon) tyahu, he pricked it, he pierced it (like a thorn); Mixe tahšp, to let blood; Chatino ča:, sharp; Mixtec (San Juan Colorado) tyaá ti, it stings (insects, etc.); Kiowa t'a, knife (all from Brown 1990: 28)
*tarak, woodpecker sp.
W buli tarak, big red-headed woodpecker which makes a big noise (scalp used to make headband for luck); cf. č'ura•t, Calif. woodpecker, acorn woodpecker, small red-headed woodpecker
N-BW tadatat, woodchuck; B tōratat, red-headed woodpecker
PCC, K, T tara•t, acorn woodpecker (red head); K nom-tara•t, pileated woodpecker
PR tara•t, (hairy) woodpecker; red section of hairy woodpecker's scalp
SP-M ter-rah'tch, Calif. woodpecker
cf. Karok (Bright 1957:363) kúrat, Calif. woodpecker
*tede, red; cf. *t'edVq, ant
W te•di, red; te•da, to be red; tede•ki, blood
N-B tedēkit, red
PR t'ededusčh $u$, I'm hot (from a fire); t'ededumaro, it's real hot (heat falling on someone from a fire, radiant heat)
*teh, *te• ? child ?; cf. *tah, father
W k'uteh, nephew, male cross-cousin; cf. t'e $(\cdot)$ s, in-law, esp. child-in-law
N-W te•, son
PCC ?uy te•, his children (sons or daughters, mother's children); pi harasa ?uy tehetin, she went to her son's; K mate', your kid; te•čhu, his child (boy or girl)
PR teč ${ }^{\text {h }} u$, my daughter; ?uyte, her son or daughter
SP-M táa-bah, family
Whistler 1980: 133 suggests that $-t$ 'e(h) " is probably related to the suffix -t'et with a diminutive sense noted in Nomlaki (and possibly also to the "in-law" term t'e(•)s, although this latter connection would have to be very old.)" Cf. W t'e, alone, exclusive, only; ku•t'et, small, child, baby (see *ku-, small, child)
*tek, *tik ?, light
W tik-, light, daylight, flash; tikal, daylight, to be daylight, to be light, of day
N-BW tEkala, bright
PCC te•ki, sunshine, light
*tel, dice?
N-G tel•a, type of women's dice game; tedela, type of women's dice game
PK tela, Indian dice (made of elderberry hearts); T tella, dice
Areal term, likely borrowed between N and P .
*tep-i/u, emerge, sprout, cross (meet)
W tEpi/u-, emerge, be transformed, appear, behind, sprout, previously unseen to appear, cross over, rise, come; tep, behind, the last, the end; tepča, come to life, emerge, come out; cf. dib, overflow sluggishly, thickly, used when speaking of muddy water or lava, to have become ooze
N-G wînteptcit, God, man come from dead; BW tepa, tomorrow; G têp, both aces in the right hand; cf. S thepca, flow
PCC tepi/u, to come out, emerge, come to life again; tep, guess on the left side; K come out, cross, get out, be born, sprout, start growing, come up, go out; tep, fork (of tree); crotch, groin
PR tepi/u-, appear, go out, come out; tepi, out
cf. Alsea ta:p-, to fly, jump; ta:p-s, wings (Golla 1997; 165)

* tet $^{\mathrm{h}}-\mathrm{i} / \mathrm{u}$, drink

N-B tè $\cdot \overline{\mathrm{i}}$, tetūle, drink
PH tet $^{\mathrm{h}} \mathrm{i} / \mathrm{u}$-, to drink
PR-B tet ${ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}$-, to drink
Probably borrowed between N and P .
*tewe, to fly, go up
W tEw-, sail, float, fly, blow up; tewe•la, to fly; tewelta, to be swept away by the wind; $\mathrm{t}^{\mathrm{h}}$ Ew-, $\mathrm{t}^{\mathrm{h}}$ iwa, tiwa, to fly; tew, dangerous, mysterious (perhaps from tEw , float; cf. tiw, search, hunt, and tiwi, to foretell the future; yuken
tewe•ya, to feel a premonition of danger; tewismet, "the devil"); $\mathrm{t}^{\mathrm{h}} \mathrm{e} \cdot \mathrm{ha}$, to be flying a short distance, flying real high up, spread wings and take off; cf. $t^{\text {h}} \mathrm{e} \cdot \mathrm{rit}$, bird, $\mathrm{t}^{\mathrm{h}} \mathrm{e} \cdot \mathrm{ra}$, to fly (obsolete)
PCC, R tewe-, to fly; K tewe-, jump; cf. K warnapom ti', north spirit
cf. Yurok terit, sandpiper; Cayuse ti-in-tuks-tin, to fly (Berman 1996: 23, from Henshaw); Molala tyen-, fly (Berman 1996: 23)
*tey, forehead
W teyi, forehead, top of pelvis; cf. teyča, pick flowers (bend down to pick?); see PW *tey
NT-M tā, forehead; BW teth, forehead
PK teyeteye, chest, breast
SP-M 'ter, tär, forehead
*tey, pick one at a time
W teyča, to pick flowers one at a time
PR teyi, to pick berries
*-ti, directional locative suffix (512.33)
W -ti, in, at; locative directional suffix
PC -ti, directional suffix, from, by (Whistler 1977b, 1978)
SP-M [-ti attested in:] no-mel'-te, west; wi-yel'-te, north
cf. Klamath and Molala locative suffixes -t (Berman 1996: 11)
*tiCe•, drum; cf. *tiltil, ringing sound
W tide, to bray, make music; tidit, musical instrument; tiduma(•), to make music
N-K tilê't, hollow log drum
PH tine•l, drum
PR-B ti•nel, drum
*til, * ${ }^{\text {h}} \mathrm{t}$ l $?$, shine
W tilo qa , to shine, glare, glitter; $\mathrm{p}^{\mathrm{h}}$ oyoq te $\cdot \mathrm{la}$, to be bald (head to shine)
PCC $\quad \mathrm{t}^{\mathrm{h}}{ }^{\mathrm{i}} \mathrm{t}^{\mathrm{h}}$ ilos, twinkling (as a star, continual)
P-M teel'-bo-ko, lightning
P tilamen, star (Dixon \& Kroeber 1919 quoted in Callaghan 2001: 332)
cf. PMi *ty?le, star ? (Callaghan ibid.); PMy *til, with reflexes including: suddenly shine, sparkle, glitter, lighten, flash, sparkle, catch fire, burn, to light, illuminate; Kwakiutl c'eliqa, something shiny (Brown 1990: 28)
*tiltil, ringing sound; cf. *tiCe $\cdot$, drum
W tile, to ring, tilča, ring a bell, bell to ring, to spring a trap; tilti•la, to ring (of a bell); tiltiliha, to jingle (diminutive of tilti•la)
N-BW tiltil, cricket
PK tiltil, ti•ltil, crickets
*tip, * t'ip ? try
W t'ipe', to try; t'ipemena', to practice; t'ipewilp'ure, to dare or challenge each other; ?el-t'ipe, to taste or sample something
PCC tipana-, try to do; H-U tipananta, try on clothes
*tir-i, belt
W tire•, to put on or wear a belt; tiri, tiru•s, tiruma•s, belt; cf. č' $\mathrm{i} \cdot \mathrm{r}$, look through almost closed eyes, squint; č'iri•k-, thin, slim, narrow, attenuated
NT-M te, belt worn by men or women
PCC tiri, dance belt; K tiridiyak, belt (about 3 in . long, made of fine beads, valuable) (cf. CC tirči/u, tight-fitting; diyak, belt worn by the bighead; K diyak, dancing belt; belt, any kind)
SP-M te-re, ter-re, belt worn by men
*tiw, search for
W tiwe, search for, hunt for
PCC tiwnan, to buy (hunt for oneself, get for oneself)
*tiwi•t, killdeer
W tuwetzt k , shrieking sound made by a bird (Du Bois \& Demetracopoulou 1931: 359); cf. M til'-le-hah, te-le'-to-lit, te-le'-lit, kil-te'-de, killdeer; te-le'hah, meadowlark
NGT-M te-wé'-dē ${ }^{\text {'d }}$-dik, killdeer (Oxyechus vocifera)
PCC, K, T tiwi•t, killdeer
PR tiwi•t, killdeer (Whistler 1976e from Merriam)
SP tiwit, killdeer (Whistler 1976e from Merriam)
Sound-imitative with similar terms in other California languages; e.g., Palewyami Che'-e-e'-te, killdeer (Berman 2002: 439)
*to-, pole; cf. *t'u, cane
W tolo $(\cdot) \mathrm{q}$, pole, paddle, fire-poker; toloy, mush paddle; cf. tole, leg; toki(t), handgame sticks
PK yay to•yi, house retaining stakes, back posts; yayto•yi, house posts (side)
*-to ?, *-tu ? agentive (511.5); cf. *-tu(•), person, people
W -to , disjunctive postclitic (foregrounding, agent, focus, contrast)
PH -tu, agentive
*tob-i, spike; cf. *t'op, be sharp; *to 1 l, stick up
W tOb-, tuba', raise, i.e., grow in the earth (i.e., grow without implication of increase), own a pet; tobit, that which is raised/grown; ?ol-tubas, stump
PK to•bito, buck with unforked horns
*tok-i ? *t'ok-i ? sticks; cf. *toq, stand up long things
W toki, handgame sticks; t'Ok-, sticks, make sticks, gambling sticks, set long thin things even or into the ground

N-G tohki', sticks (Hesi regalia)
PCC t'ok, stick; K toki, stick used for counting money in grassgame; t'ok, little stick
Diffused, irregular correspondence.
*to $\cdot 1$, stick up; cf. *tob-i, spike
W to•la, plants to grow
PCC to•li/u-, stick (head) out, up
*tolto- ? *totow- ?, roadrunner
W-M pum'-taw'-taw-what', pum-to'-waht, roadrunner [with po-m, ground]
PR-B thult ${ }^{\text {h }} \mathrm{ul}$, roadrunner; $\mathrm{t}^{\mathrm{h}}$ olt ${ }^{\mathrm{h}}$ ow (Whistler 1976e from Merriam)
Most likely diffused and not a good set
*ton, willow sp. or basket sticks from that willow
W ton, willow; white willow wood, bark and the sticks of white willow wood (used for baskets); tonmi', (white) willow tree; toni č'u•s, willow stick; (-mi•, tree; č'u•s, wood, stick)
NT-M ton'-me, willow (Salix hindsiana)
PCC ton, a pole, upright post; K ton, basket stick
PR-B ton, post supporting house
cf. PCC, K tunuk, baby cradle; H-U t'unu•k, baby cradle from willow; A-U, T-U tunuk, cradle basket; PR-B t'onok, baby basket
*toq, stand up long things; cf. *toq ? *tuq ?, nape of neck; *tok-i ?, t'ok-i ?, sticks
W toq-, to be like a post, stand up anything long, from tOq, set long thin things even or into the ground; toqči, a post; toqča, to set a post in the ground; cf. $\mathrm{t}^{\mathrm{h}} \mathrm{Oh}$, rigid; tok, dancing place
PK toktok, primary wing feathers
*toq ? *tuq ? nape of neck ?; cf. *toq, stand up long things
W toqi qi, (back ?) part of the neck; backbone, when on living body or skeletal, toqi $\cdot \mathrm{qit}$, spine; cf. doki, neck, throat; toro $\cdot \mathrm{r}$, ridge
NT-M dok'-kon', back bone (vertebrae)
PCC tukutuku, neck (esp. back of neck), whole neck, back of neck high up on head; cf. Takit, back of the neck; K tuku•tuku, neck; cf. PR čočhe, neck (archaic word), nape of neck
cf. Alsea ta:kw-, to swallow (Golla 1997: 165); Mins, Mip to pa-, nape (Callaghan 2001: 331)
*toqo ? *doqo ? beetle sp.
W doqos, bulletin bug; cf. doqos, arrow, bullet (folk-etymology)
NG-M daw-kaw, beetle (all kinds)
PCC toko men, water beetle; K toko $\cdot \mathrm{k}$, a bug that lives in the ground, makes a hole about 3/4" deep, about the size of a fly; K CC ant lion
*tos, basket type
$\mathrm{N}-\mathrm{C}$ tâs, burden-basket; cf. W tho ${ }^{\text {h }} \mathrm{s}$, camp(ground)
PK tos, kind of basket (big)
*to to, dance type ?
N-G to totcono, fast type of dance
PK to to, name of old (pre-Kuksu) dance type
PR to•to, "shakehead dance," with feather costume, old-time dance
Most likely a loan between N and P and not reconstructible
*tu, ahead of, before, first; prefix: ahead (422.3); cf. *tum, eye
W tu-, straight ahead, forward, in front; tuda, much further along; tune, forward, front, first; tuwa, tu?a( $\cdot$ ), a little further along, further on; tu•ntaqa, first; tuwa kele•l, further out; tu•n, still, yet, far ahead, long past, a while ago, a long time ago; tu•n?ukin, long ago; tu•n-p'uta•č'epet, ancestress; tu•nku•ra, to have the first child
PC tu-, ahead, first (prefix) (Whistler 1977b)
PCC tu•so, to go first < *tu•, first + ho, verbalizer; K tu•patuka č ${ }^{\text {h }} \mathbf{u}$ hara•bus, I'm going ahead; tube, early morning
SP-M too'-pe, first; too'-pe-win, first people
cf. Alsea tu:, tu:-c (particle) here!, an-tu:-n, that there; Siuslaw tu:(a), that one (Golla 1997: 166)
*-tu( $\cdot$ ), person, people; cf. *-to ? *tu- ?, agentive; *t ${ }^{\mathrm{h}} \mathrm{u}(\cdot) \mathrm{n}$, body; whole
W -tu', -t"u', classifiers meaning something like "people" or "beings"; e.g., ya•paytu•, shamanistic spirit, killer spirit, white person; wint ${ }^{h} u \cdot h$, person, people
N-G łakaltu, male supernatural being; K sêktu, chief
PCC se•ktu, chief, boss of any kind, captain
PR se•ktu, chief, headman, captain
*tum, eye; cf. *tu, ahead of, before, first
*tus-men, tears
*tusupuy, eyelashes
W tum (g), eye, eyes, face; tuh (p), one eye, particular eye(s); tusmen, tears; tusupuy, eyelashes
N -Ha tumút, eye
PCC, T tu•men, tears; tusupuy, eyelash; K tus, whole face, cheek; tusupuy, eyelash; T tus, face, cheek
PR tus, face; tusmen, tears (in eyes); tusupuy, eyelashes
SP-M too'-mah, too', eye
cf. PMy *tum, center, middle (Brown 1990: 58)

## $t^{h}$

*t ${ }^{\mathrm{h}}$ ah, berry sp .
W $\quad \mathrm{t}^{\mathrm{h}}$ ah, sarvice berry, service berries; cf. $\mathrm{t}^{\mathrm{h}}$ abat, (wild) service berries; $\mathrm{t}^{\mathrm{h}}$ ahmi, service berries, salmon berries [tree]
N-C tá-hi, service-berries; cf. ták-chi, raspberries
PC-M tah', chokecherry
*thak, put on a hat
*thak-i, hat
W $t^{\text {haka }}$ a , to put on one's hat; $t^{\text {h }}$ aki $(\mathrm{t})$, hat, cap; cf. panti čaxča, to put a deerhead up as a decoy
N-BW thaki, hat
PCC $t^{\mathrm{h}}$ ači, hat; $K t^{\mathrm{h}} \mathrm{ach}^{\text {hi, cap, hat }}$
and irregular:
PCC, K, T thaknan, to get dressed (up), to ready one's house, the dancehouse, etc., get things arranged when expecting someone
cf. Nez Perce tá•qma•ł, hat; Sahaptin táqmał, hat; Molala taqäm, taqqam?, taqqäm, hat (Berman 1996: 21)
*thak-čh ${ }^{\text {h }}$ i, dump (granulated solids ?)
W $\quad \mathrm{t}^{\mathrm{h}}$ akča, to shove, push, spill granulated solids; $\mathrm{t}^{\mathrm{h}}$ akal, solids to be spilled; $t^{\text {hakči, nominal form }}$
PK $\quad t^{h}{ }^{\text {att }}{ }^{\text {h }} \mathrm{i} / \mathrm{u}-$, dump (out)
*thał-, bump
W ?el-t ${ }^{\text {h }}$ łłča, to break
PR $\quad \mathrm{t}^{\mathrm{h}}$ ałalas ču, I bumped (myself); thałalta, bumped
*tha•p ?, *sap ?, wash face, wash up (282.)
W Pel-sapana', to wash one's face
PH-U ta punanta, wash your face
PR $\quad t^{\mathrm{h}} a \cdot p u n a n$, wash your face and hands; $\mathrm{t}^{\mathrm{h}} \mathrm{a} \cdot$ punanat $\mathrm{t}^{\mathrm{h}} \mathrm{i}$, everyone wash up! (before eating)
*thapa, sand
W wenemt ${ }^{\text {th }}$ apa, to be a mound or island in the river ("middle-sand" ?)
PR thapa, sand
*thaw, left
*thaw sem, left hand
W thaw-, left; thawsem, left hand
N-BP thaw-(sem), left side
PH-B $t^{\text {h}}$ aw, left-handed
PR thaw sem, left hand
*thel-a ${ }^{\text {h }}$, liquid spreads; cf. *thil- Pa eat with someone
W $\quad \mathrm{t}^{\text {helela}}$, liquid to spread out
PCC $\quad \mathrm{t}^{\mathrm{h}}$ ela $\cdot$, (water) spreads out (after spilling)
*theł, crack open; cf. * $\mathrm{t}^{\mathrm{h}} \mathrm{oł}-\mathrm{i} / \mathrm{u}$, break up surface
 to be a rip, split on cloth; čEł-, to stone, hit with a rock
PCC $t^{\text {h }}$ ełu, to slice wood down, to cut thin shavings off so as to make something fit in
cf. Proto-Cholan *til/*tihl, with reflexes including: fall, collapse, crush (chile peppers), break (arm, leg), fall apart, tear down completely or into bits, and other related meanings; Totonac (Papantla) tilha, he breaks it to pieces, he destroys it; Tonkawa til?aye-, to crush (it) (by falling on ...), to hurt, injure (it) by pressure (all from Brown 1990: 39-40)
*thil-Pa eat with someone; cf. *t ${ }^{\text {h }}$ el-a , liquid spreads; * ${ }^{\text {h }}$ eł, crack open
W $\quad \mathrm{t}^{\mathrm{h}}$ El-, $\mathrm{t}^{\mathrm{h}}$ ila $\cdot$, to eat with someone
PH-U $\mathrm{t}^{\mathrm{h}} \mathrm{il}$ ?a henta, lunch
*thoł-i/u, break up surface; cf. *theł, crack open; *thulu? *tholo ?, pestle
W *thoł-, break ( $<$ * $^{\mathrm{h}}$ ol, stir, as in: $\mathrm{t}^{\mathrm{h}}$ oloh, mush paddle; cf. $\mathrm{t}^{\mathrm{h}}$ ul-, swim, i.e., "break water's surface" ?); thuła, to chip; thołča, to break; thułal, broken; cf. tuł, bang, roar, thunder, shoot with rifle, to be popeyed
PH-U, T-U tołi, pound (anything, e.g., meat); cf. A-U thulup, rock acorn cracker
PR tho•-?aro, "crazy," what happens to someone caught by a spirit up on Sutter Buttes, when they get trapped or distracted while up there ["cracked (up)"?]
*t ${ }^{\text {h }}$ oq-č ${ }^{\text {h }}-\mathrm{i} / \mathrm{u}$, lean against (tr.)
W $\quad$ el- $t^{\text {th }} \mathrm{oqča} / \mathrm{i} / \mathrm{u}$-, to lean something up against (as a board against the entrance so as to close it); ?ol-thuqa, to stand up long things (as poles); cf. tuka•, to make handgame sticks; kento $\cdot \mathrm{k}$, to put into the ground (tree, pole)
PR $\quad \mathrm{t}^{\mathrm{h}} \mathrm{okt}^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, to lean (something) against
*t ${ }^{\text {h }}$ ub, spit
W thube, to spit (once)
N-BW tuba'-, spit
PK thuba-, to spit
PR thuba, to spit
cf. PMy *ty ${ }^{y}$ hb'-i, to spit, *ty ${ }^{y}$ uhb', saliva; Maidu t'up, spit; Zoque (Francisco Leon dialect) čuhpì?u, spit; Popoluca (Oluta) tìcuhpa, spit; Choctaw tufa, spit; Natchez cufhagiš, spittle; Keresan šupšup, spit; Colorado tu?pakeno, spit; Mosetan čupi, spit (all from Brown 1990: 26)
*thul-e/i/u, swim; cf. *t ${ }^{\text {h}} \mathrm{oł}-\mathrm{i} / \mathrm{u}$, break up surface
 by boat; to travel on the water either swimming or in a boat; $\mathrm{t}^{\mathrm{h}} \mathrm{u} \cdot \mathrm{la}$, to glide on the water
N-J tu-le, swim
PCC thuli/u-, swim
PR $t^{\text {h}} u l i / u-$, swim; $t^{\text {h }} u l e$, you swim!
cf. Alsea tlu:q'w, land close to the shore, beach (Golla 1997: 166)
*thulu? *tholo ? pestle; cf *thoł-i/u, break up surface
W $\quad t^{\text {h}}$ oloh, pestle, mush stirrer; $\mathrm{t}^{\text {h }}$ olo $\cdot y$, cooking paddle, paddle for stirring
PCC $\mathrm{t}^{\mathrm{h}}$ ulup, pestle
*thu( $) \mathrm{n}$, body, whole; cf. *-tu( $\cdot$ ), person, people
W wint ${ }^{\mathrm{h}} u \cdot n \mathrm{t}^{\mathrm{h}}$ unis, (the whole) body; $\mathrm{t}^{\mathrm{h}}$ unama•, altogether, all over all of it; $t^{\text {h }}$ unin hina, to come together (for war), enter into trance, come up to somone; $\mathrm{t}^{\mathrm{h}} \mathrm{u} \cdot \mathrm{n}$, back (body part), slope, back above waist, back of the body slope ( $\mathrm{t}^{\mathrm{h}} \mathrm{u} \cdot \mathrm{n}$, steep, slope); cf. tu, tu•n, ahead; tu•nmaq, chest, breastbone
N-BW tun, body; T-M toom', whole body; N-W thu n , chest
PCC, K $\quad t^{h} u \cdot n$, body; T-U thu n, lots
PR $\quad t^{\mathrm{h}} u \cdot n$, body
SP-M toon', whole body
*thup-u? *t ${ }^{\text {h }}$ ub-u? pull out; cf. *sob-č-u, *sob-a, pull off
W $\quad \mathrm{t}^{\mathrm{h}}$ upuwil, to pull out weeds or plants; ?ol- $\mathrm{t}^{\mathrm{h}}$ upča, to pull up (as traps)
N-BW tip-, thip-, pull
PCC thubu-- to pull out
PR t'ubu•-, pull
*thuq, single thing or individual emerges; cf. *čuk-a, approach
W $t^{\mathrm{h}} u q$ ča, to pull out, to pull out a single hair, to pull out something by the roots, to take out a splinter; thuqe, to tweeze hair
PT-U $t^{\text {h }} u k t i s$, he comes out (as in kewena thuktis, he's coming out through the house)

## $t^{\prime}$

*t'a-, chew; perhaps *t'ač and identical with *t'ač, split/slit two halves
W t'ača•, to chew on, eat on something (perhaps $<*$ t'ad-, split, cut)
PR t'ała $\cdot \mathrm{k}$, to chew; cf. H-U, T-U thačoho, chew
*t'ač, split/slit two halves; cf. *t'a-, chew
W t'ača, to split without separating wide open; se-t'a•t, to split open, to split apart, to split twigs, wood, watermelon ( $<*$ t'ad-, split, cut); cf. t'e $\cdot 1$, slit
PCC t'ači, abalone shell pendants; T-U abalone and abalone shell
*t'al-a, fall; cf. *dil-i, fall
W t'ala, to fall off
$\mathrm{N}-\mathrm{S}$ t'ala, fall
PCC, K t'al, to fall; CC t'alma, to drop (tr.)
PR t'alta, fall (of nuts, people), fall down; t'alma, to drop
*t'ał-a, clothe, clothes; cf. *t'amu', shoe
W t'ała, to wear clothes
NT-M tah-hlah-pen'-peet, naked [clothes-without]
PCC, K t’ała', clothes
PR t'ała, clothes, clothing
*t'amu', shoe; cf. *t'al-a, clothes
W t'amu•s, shoe(s); t'ama $\cdot$, to wear shoes
N-SS tami, shoes
PT-U t'amu, t'amu•, shoe; t'amu', foot; t'amu, footprint
*t'aq-i/u, pound
W t'aqa', to pound, pulverize, grind with a stone; pukit'aqi, acorn mush before cooking
PCC, K t'aki/u-, pound, grind, smash up
PR t'ak ${ }^{\text {h }} \mathbf{i} / \mathbf{u}-$, pound
*t'aq, slap
W t'aq-, slap, pet, pat; t'aqča, slap, slap on the body, slap one slap, spank
PH-U t'akči, t'ak'a, to slap; sem t'akt'akči, clap hands
*t'ara, mushroom sp.
W t'arak, lily mushroom
PCC, K t'arap, mushroom sp.; T mushroom sp., shelf-type (on cottonwoods?)
PR t'arap, mushroom sp. (flat, on trees)
*t'arara ? *č'arara ? kingfisher
W t'a rarak , belted kingfisher
NGT-M chă-dah'-dahk', kingfisher (Ceryle)
PCC čh $a \cdot r a r a$, kingfisher; K čharara, belted kingfisher; KT čh ${ }^{\text {h }} \cdot \mathrm{rara}$, belted kingfisher
PR č'arara, kingfisher
SP čharaw, čh ${ }^{\text {hararaw, belted kingfisher (Whistler 1976e) }}$
cf. Palewyami Cho-taw'-to-klōs', kingfisher (Berman 2002: 439)
*t'eb, split apart; cf. *t'eč-a, slice; *č'eb-a•, to scrape, scratch; * $\lambda$ 'ab, $\lambda$ ' eb, break
W t'epča, to skin a deer; se-t'epča, to cut open, tear open (an animal)

PK t'ebap'iri, t'ebapita, to split apart (as a long stick), split open (tearing cloth or tearing open deer guts); t'ebč ${ }^{\text {h }}$ opita, already split off (as a large branch falling down off a tree)
*t'eč-a, slice; cf. *t'eb, split apart, *t'ač, split/slit two halves
W se-t'eča, to cut fish or deer apart
PR t'etaho, to split open a fish (down the middle into two pieces); T-U, te•te, fish cut in slices; H-U te•lta, sliced meat
*t'edVq, ant; cf. *tede, red
W t'ido•q, red ant (or "ant" when modified, e.g., lalas t'ido•q, little black ant)
NG-M ted'-dawk', ants (all kinds)
PCC t'edek, big (red?) ant sp.; dark-colored big ants (in ground); T big red ant sp.
PR t'edek, big red ant sp.
*t'el, smoke hole
W-M tel' hol'-luk, smoke hole; cf. pat-čeli, door; xeli, door; M puluk (teluk), cooking basket, close twine
PK Tolt'el, smoke hole
*t'eqel, palm; cf. *dek, climb, step
W Tol-t'eqel, forehead ("upper palm"?); cf. t'aqal, palm or under-foot, sole < t'aq, pat, pet, slap, pound; cf. tep-t'ikil, heel
NT-M dow-tak-le, sole
PCC, T-B t'ekel, palm of hand
PR-B t'ekel, palm of hand
SP-V tíkíl $\overline{\mathrm{i}} \overline{\mathrm{l}} \overline{\mathrm{i}}^{\prime} \mathrm{u}$, baby's heel
*t'er ?, tend in indicated direction; cf. *t'ir, twist
W t'Er, move, act, tend, in indicated direction; cf. ther-, glide, spread the feathers to glide
PCC čentere, to hang down; K wayt ${ }^{\text {h }}$ ere, "face the north," the Colusa place with the dancehouse
*t'er-i, make round; cf. *dir, *dił, roll; *t'ir, twist
W t'ira, to catch fish in net, hold out net to catch fish; xun-t'erča, to fold, close; ?ol-t'ira, to hold up a dish to catch water; t'e-ri, big pack basket
PT-U t'eri, anything round
*t'es, sneeze
W t'ise', to sneeze
PCC č'esi, to sneeze; K č'esi/u-
PR č'esi/u-, to sneeze
Irregular correspondence due to sound symbolism. Widespread similar forms.
*t'e( $\cdot$ )s, spouse's parent, child's spouse, in-law one generation removed
W t'e•s, -t'es, spouse's parent, child's spouse
N-W t'es, spouse's parent, child's spouse
PCC t'e $\cdot \mathrm{s}$, in-law (generation higher); nay t'e $\cdot \mathrm{s}$, my father-in-law, my mother-inlaw; K nayt'es, father-in-law (wife's father, husband's father), son-in-law (daughter's husband)
PR t'e•s, daughter/son/father/mother-in-law, in-laws in general
$*^{\prime}{ }^{\prime} \mathrm{i}-$, *thin $^{\mathrm{h}}$ - ?, know; cf. *t'ip, make sparks; *t'ihi $\mathrm{t}-\mathrm{u}$, ask
W t'ipna', to know
N-BW t'ipna-, know

PR $\mathrm{t}^{\mathrm{h}} \mathrm{c}^{\text {h }}$ a, know, understand
*t'ihi $\cdot \mathrm{t}-\mathrm{u}$, ask; cf. *t'i-, *thi- ?, know
W t'ihi ta, t'ihi tu-, to ask a question, ask for advice
N-BW tihitE-, hand over, get, give
PCC, K t'ihi•ti/u-, ask
PR-B t'ehiti, tiito, t'ehitu, to ask
*t'ik-i/u, pour solids
*t'ik-u-pa(q) (with benefactive)
W panti t'ika, panti t'ike', to pour solids on something; t'ikel, to be filled with solids; doči bukulin t'ikupaq, bake it in the ashes!
PCC t'ičo', to put in a sack; t'iči, to bury (tr.), to cover up with dirt; t'iči kewe,
 sack); t'ičh'ikewel, sweat house; ?ut t'ič̌h uparo, threw (dirt, gravel) on/over him
PR t'ič hu-, bury; B t'ičiłu•t, sweathouse
*t'ip, make sparks; cf. *t'i-, *thi- ?, know
W t'ipe', sparks to fly, to send out sparks, fire to crackle; ?el-t'ipel, something to be in one's eye; cf. M che'-pok, ashes
PCC t'ipili, to roast in earth oven, (cover with ashes) meat roasted in pit with ashes over it; K roasted squirrel; cf. t'ipa, acorn bread
PR t'ipil, to bake in ashes; cf. t'ip ${ }^{\text {h }}$, bread
SP-M e'-pah, acorn bread
Whistler 1977a suggests that the P forms for acorn bread are borrowed from Miwok, citing PMiw *cíp•a. If this is the case, P would have folk-etymologized the borrowing and changed c to t . However, W dibilis, acorn bread when the dough is thick (dib-, ooze, overflow sluggishly, thickly) and tibil, make acorn cakes, indicate that these forms involve a root of older lineage.
*t'ir, twist; cf. *dir, *dił, roll; *t'er, tend in indicated direction
W č'anin t'i•ra, to twist to one side; cf. č'anin t'ili $\cdot \mathrm{ka}$, to twist (someone's arm); t'ilikta, to wind; t'iłe', to twist and roll wild iris to make rope; t'il-, spiral,
twist, wind, roll, bore, focus; t'ile', to be twisted, as a vine around a pole or tree
PCC t'ir-, to twist (in the fingers)
*t'ok, spot
W t'okča, to have a spot; t'uka', to have (a) spot(s); t'oko ra, to be spotted (all over); cf. łuk-, spot; łuxča, to have chickenpox
PK t'oki, one spot; t'oku ro bo•s, spotted, freckled
cf. Klamath (Barker 1963: 538) lto $\cdot \mathrm{q}$ ', be spotted
*t'oli, dragonfly
W t'oy bolma, dragon fly (folk etymologized: lit. penis suck)
PR-U t'oli, dragonfly
*t'on, tarweed
N-G t'on, tarweed
PCC, K t'o•n, white tarweed sp. (prob. Hemizonia rudis, hayfield tarweed)
Possibly a loan between N and P
*t'op, *t'up, be sharp; cf. *tob-i, spike
W t'Op-, spear, stab, stick, pierce, thorns, prickles, be sharp, be pricked, joint, set ends together, guess in gambling, hornet, wasp; t'upa;, to stick with something sharp, get shot; t'opča, to sting
PCC t'opelto, get up, raise oneself up; K pi ?ete•ta t'opu•l bes, that's a pole; t'opu ro, put (net) down in water to catch fish; U t'o•pt'opma, itching all over body
PR t'u•p, spear (n.); t'up, spear, slice finely
SP-M tup'-pel-to, stand up!
cf. PMy *t'op, to pinch (Brown 1990: 58)
*t'or, pinch
W t'or, bite, pinch, nip at (< t'Or-, take acorns out of cups ?)
PCC t'ori?a, be stuck on
*t'ot, thick liquid
W t'Ot-, t'uta', to throw thick liquid, make acorn flour into dough; cf. čutupa, to be thick
PH-U, A-U tote, nasal mucus
*t'u-, cane; cf. *to-, pole
W t'uwe $s$, cane, crutch; t'uwemena', to walk with a cane
PCC t'uha, the stick held by a dancer ?; T-U t'uha', walking cane; K t'usa, walking stick
*t'ubuq, mortar?
W t'ubuq, largest storage basket

PR č'obok, mortar; B mortar hole
If cognate, P would have backed *t' to *č' in a reversal of the fronting chain (an early hypercorrection?)
*t'uduy, *t'uy, stone, small round rock
W t'ud-, round, ball, naked; t'uduy, ball; t'udu $\cdot \mathrm{q}, \mathrm{t}$ 'uduq, round; se-t'udu•ra, to roll around; M too-doo, small stone for splitting acorns; C notudui ulumus, he stoops picks up stones; cf. t'une', to make (into) a ball; xun-t'uye, to make bundles; č'u•d-, to sit on haunches
N-BW tuduhu, ball; G tudut, puck (knob of wood for shinny)
PC dudi, ball
PR t'uduy, rock; R-U small rock
SP-M 'too-yook, round like ball
cf. PCC, R-B t'odoy, short; SP-M 'to-dok, short; PH-U t'odo•k-Paro, stingy
*t'uk-u, drown
W t'uke', to (die by) drown(ing), to be submerged; t'uku-, imperative stem
PR t'uč ${ }^{\text {hu}} u$, t'uči/u-, to drown
PH-B t'usi, to drown (irregular)
*t'uk-u-k ${ }^{\mathrm{h}}$ en, you might drown (with *-k ${ }^{\mathrm{h}}$ en, may, might, lest)
W t'ukuken, you might drown, lest you drown
PR č'o•nan, t'učučin mi, watch out! you might drown
*t'ul, to finger
W t'ulčuheres, the one it is tabu to touch, the one made handsome, Tulcuheres, the Sun (with evidence from myth, perhaps 'the one who was beaten as a (potential) spouse'; cf. tul, to beat a spouse; tuk, throb, pulsate); C translates "tulchuherris" as "dug out of the ground," which may refer to a person originating on earth in contrast to Sun in the myth. The most likely meaning of the root t'ul- is "touch, stick fingers in to touch or dig up." Cf. č'uli•ka, flames, flames going along, licking about
PCC t'ulukpale, I'm gonna stick my fingers in and get it out [e.g., into mouth of a choking person]; K t'ulukta, grabbing, fondling

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*t'umi, fog
W t'umi
N-S t'umiit, fog
PT t(')umi, waterfall; cf. K sumuklay, to be foggy
SP-M too'-mě, fog
*t'uw, pine?
W t'uwe}s\mathrm{ s, crutch, cane
N-G t'u}\cdotwa,\mathrm{ walking stick
PCC t'uwa', pine tree; K T t'uwa·(t'ok), digger pine
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*t'uy, seal (close)
*t'uy-čh -i , net
W t'uy-, plug up, stop up, fill up, seal, bundle up, spurs, bird's down; C tuichi kelis, feathered head net; tuichu kilis, net faced with white down; cf. č'uyih, be cramped, cramps, rheumatism, be numb
PK t'uyi/u-, close (door), dam up, (water) to back up; cf. CC, K, R toyi/u-, to stop, quit, end, edge; SP-M toi'-yu'-pah, full
PR-U t'uyt ${ }^{\text {h }}$, sack from twine; t'uyt'uyta, separating acorn seeds rotating basket

$$
\lambda
$$

* $\lambda$ 'ab, * $\lambda$ 'eb, break; cf. *t'eb, split apart

W $\quad \lambda^{\prime}$ 'e-, to interrupt a physical continuity, break; $\lambda^{\prime} E b, \lambda^{\prime} \mathrm{Ep}$, break, tear; $\lambda$ 'abalpom, French Gulch (Whistler 1980: 24: "... the most promising phonemic interpretation of the term [for French Gulch] seems to be $/ \lambda$ 'abalpom/. La Pena (1978: 324) offers a translation as 'good (peaceful) ground', but I consider a more appropriate translation to be 'broken up-place (or country).' This could refer either to the natural topography of the French Gulch area, or, if the term is a late coinage, to the local disruptive effects of 19th century mining in the area. The root $/ \lambda$ 'ab-/ seems to be somewhat uncommon in Wintu, but survives as a common root in Patwin. Cf. WPCC $/ \lambda$ 'aba•/ 'to break (one thing) to pieces; to shatter' and / $\lambda$ 'ab-ču/ 'broken into pieces; shattered.' The -al ending on the Wintu form is presumably related to the Wintu \{el\} stative root-deriving verbal suffix.")
PCC $\lambda$ 'ebu, to chip (pl.); $\lambda$ 'eba', to break (like an eggshell, bust up); $\lambda$ 'ebi, to chip, to round bead blanks by chipping; $\lambda$ 'eb $\lambda$ 'e'bis, nibble; $\lambda$ 'abu, to break (pl.) into pieces; $\lambda$ 'aba', to break (sg.) into pieces (flowerpot, bottle on a rock, etc.)
cf. Alsea łxwmt- (or ty’umt-), to tear (Golla 1997: 163)

* $\lambda$ 'al, (empty ?) shell

W $\quad \lambda$ 'al, shell; $\lambda$ 'ala $\cdot s$, abalone shell, seashell, clam, mussel, oyster, earring
N-G ma•tlala, earrings; TG-M klal', any shell
PCC, K $\quad \lambda$ 'al, shell (any; oyster, snail, turtle, nut, acorn)
PR $\lambda$ 'al, empty shells of acorns, walnuts, beans, etc.

* $\lambda$ 'ap-u ? *t'op-u? fit

W $\quad \lambda$ 'apure, to suit, match, fit; $\lambda$ 'apurna', to try on; $\lambda$ 'apurma', evenly (divided) PR t'opu-, fit
$* \lambda$ 'aq, finish; $* \lambda$ ' ${ }^{\prime}$ - $-\mathrm{c}^{\text {h }}$ (with mediopassive) ( $* \lambda$ ' ${ }^{\prime}{ }^{\prime \mathrm{k}}-\mathrm{c}^{\mathrm{h}}$ ?)
W $\lambda$ 'aqama, to stop snowing; cf. $\lambda$ 'aq, obsidian, chip ?; $\lambda$ 'akama, rope to break; łaq, cover; $\lambda$ 'akča, to burn up (tr.)
PK $\quad \lambda$ 'att i , done (of the dancing), finish, wind it up
PR $\quad \lambda$ 'akt ${ }^{\mathrm{h}}$, to finish a period of fasting, to be over with it, last finishing up of the dance, ceremonies

* $\lambda$ 'aqa, (dry ?) grass

W $\quad \lambda$ 'aqas, łaqas, weed
PCC, K $\quad \lambda$ 'akan, hay, dry grass

* $\lambda$ 'aq-a, strike at

W $\quad \lambda$ 'aqa', to flake, retouch obsidian; cf. $\lambda$ 'ak-, make arrowheads
PR $\quad \lambda$ 'aka-, kick

* $\lambda$ 'ar, white stone

W $\quad \lambda$ 'a•buruq, marble, white stone, agate; cf. łuru-qi, white
PK $\quad \lambda$ 'ara $\cdot \mathrm{k}$, small white rocks (heavier than gravel, only come from certain places, maybe in some dry spots in the creek; white, black, small)

* $\lambda$ 'ał, rattle; cf. * $\lambda$ 'al, (empty ?) shell

W $\quad \lambda$ 'ał, live mollusc (in its shell; e.g., oyster, abalone, mussels, clams), mussel (shell); cf. $\lambda$ 'asa sus, rattle, split rattle, wooden rattle; łas, stick for rattling; łasa•sus, łasa•sunas, any stick used for rattling, music, song; łada•rus, elderberry rattle
NT-M 'kah'-sah'-soo, rattle; C ka-hlá-hlu, rattle (split-elder baton); H $\lambda$ 'a $\lambda$ 'ałi, rattle (clapperstick); BW kaLaLu, kaLalu, singing stick
PK $\quad \lambda$ 'ałi, big clapper sticks used by dancer, small clapper sticks used in singing, rattle, singing stick

* $\lambda$ 'er, pierce through; cf. $* \lambda$ 'ab, $\lambda$ 'eb, break

W $\lambda$ 'eriča, to shoot low (tr.); sanihas $\lambda$ 'eriča, Morning Star ("daylight archer"?)
PCC $\quad \lambda$ 'eru, to punch holes (pl.) in; $\lambda$ 'era', to go through an opening (flying or walking), punch a hole in (with awl, etc.); cf. $\lambda$ 'er-, shout, cry out; K $\lambda$ 'er-, scream

* $\lambda$ 'erew, bulb sp. (Brodiaea sp. ?)

W $\quad \lambda$ 'ere $(\cdot) \mathrm{w}$, tigerlily (bulbs), mountain lily
PCC, K $\quad \lambda$ 'erew, harvest brodiaea ?

* $\lambda$ 'et, ground squirrel

W $\quad \lambda$ 'et, California ground squirrel; also łet, ground squirrel $<$ łEt, be nervous, tremble, shiver (perhaps a folk-etymology)
N-W $\quad \lambda$ 'et, ground squirrel
PCC, K, R $\quad \lambda$ 'et, ground squirrel
SP $\quad \lambda$ 'ek?, ground squirrel (Whistler 1977a)

* $\lambda$ 'ey-e, bare the teeth

W si• $\lambda$ 'eya, to show all the teeth (smile broadly, i.e., spread lips); si $\lambda$ 'eyes, a person whose teeth are always showing
PK $\quad \lambda$ 'e•y-, laugh, neigh; T-U $\lambda$ 'eye, laugh
PR $\quad \lambda$ 'ey, to laugh; B to smile

* $\lambda$ 'ik, dull (of senses)

W ma•t $\lambda$ 'ikeles, stopped up ears
PCC $\quad \lambda$ 'i•ki, pain has gone down (refers just to pain)

* $\lambda$ 'ił-, shelled and dried acorns

W $\lambda$ ’iłe, acorns
$\mathrm{N}-\mathrm{C}$ tlí-hla, acorns (shelled and dried)
PCC t'iła, hulled and dried acorn kernel (without the skin)
PR t'iła, dried acorn kernels
The P forms may have been dissimilated ${ }^{*} \lambda^{\prime}>\mathrm{t}^{\prime} / \_1$

* $\lambda$ 'ir, roast

W $\quad \lambda$ 'idi ruma', to fry (dissimilation $* \mathrm{r}>\mathrm{d} / \_\mathrm{r}$ ?)
PK $\quad \lambda$ 'il-, $\lambda$ 'ir-, roast, scorch (hair off a squirrel)

* $\lambda$ 'itq-, apply light pressure with hand

W $\quad \lambda$ 'i'tqa, to feel, touch
PCC $\quad \lambda$ 'iti $\cdot$ ko, to squeeze (sg.), squeeze easy, press lightly; $\lambda$ 'i•tko, to squeeze (pl.), press down, squeeze or press on lightly repeatedly

* $\lambda$ ' $o \cdot m-u$, kill; cf. *lim, fade away

W $\quad \lambda$ ’o ma, to kill, slaughter, murder; cf. ło•m, stick; ław, hit; łu, stab, pierce; $\lambda ’ u$, stick in (all from *łO- ?)
PCC, K lum-, lu•m-, die, dead
PR lu•m-, dead, die
SP-M loo'-mir-rit ?, dead; lum-o'-oot, kill [him, her, it] (an animal, man)
P may have changed $* \lambda$ ' to 1 by contamination with lim-, see ${ }^{*}$ lim
cf. Alsea łxma:n-, (or tt’a:mn-), to kill; Siuslaw tł’xmai-, kill, tł’xmi:ti:, bow (Golla 1997: 163)

* $\lambda$ 'op, *łop, tule, bulrush

W $\quad \lambda$ 'op, flat tule; łupul, tule, needle grass, rat-tailed grass
NG-M 'hlup', big round tule; T-M 'hlŭp' (Scirpus lacustris); B Lap, tule
PCC łop, round tule, bulrush; T $\lambda$ 'op
cf. Mim șappa, tule (Callaghan 2001: 324)
$* \lambda$ 'op, * $\lambda$ 'op-č ${ }^{\text {h }}$, *łop-č ${ }^{\text {h}}-$, insert long things (vertically ?), poke, stick into; cf.

* $\lambda$ 'ut, * $\lambda$ 'uč'h - , apply sharp pointed object

W $\quad \lambda$ 'Op, $\lambda$ 'upa, put, stick in long things vertically; $\lambda$ 'upča, to stick into the ground, bow one's head; ?ol- $\lambda$ 'upča, to tack up hides against the house; ken$\lambda$ 'upča, to throw or put a person in deep water; $\lambda$ 'opča, to put something into, dump (acorns, hide), also łopča, to spill out on the ground, to dump out or down
PCC $\lambda$ 'opt ${ }^{\text {h }} u$, to put in (sg.); $\lambda$ 'o $\cdot \mathrm{p}$, to fill (pl. of $\lambda$ ' ${ }^{\prime} \mathrm{opt}^{\mathrm{h}} \mathrm{u}$ ); $\lambda^{\prime}$ 'optaro, filling, putting in (a lot of things)
łupa', to poke with a needle, prick; łopt ${ }^{\text {h}}$ unana, put on (as shoes or gloves) (insert one’s fingers or toes into); łopt ${ }^{\text {h }} u$ ' iri, put together; łu•pi, to put feathers on head
PK łuparro, stick in hand, stick in anyplace, with a needle; łopt ${ }^{\text {h }}$ uro, put on, attach; łopt ${ }^{\text {h }}$ upita, joint
PR me $\cdot m ł{ }^{\prime}{ }^{\prime}$ opt $^{\text {h }} u$ ?, put it in the water, soak it in the water; $U \lambda$ ' opt ${ }^{\text {h }}$ unan, ring (put one's finger into); $\lambda$ ' $^{\prime}{ }^{\text {th}}{ }^{\mathrm{h}} u$, łopt ${ }^{\mathrm{h}} u$ ?, to put together

* $\lambda$ 'or-, protruberance

W $\quad \lambda$ 'Or-, $\lambda$ 'ura', to pile up rocks or earth; $\lambda$ 'uru•m, mound; cf. łor, freckles, pimples; łOr-, add; łur-, small dots or freckles
PR $\quad \lambda$ 'ora, knee; cf. $\lambda$ 'uri?, earwax ?

* $\lambda$ 'uk, worm

W $\quad \lambda$ 'uk, worm, cutworm, pinworm, maggot; cf. łu q , worm
N-BP $\lambda$ 'uk, worm
PCC $\quad \lambda$ 'ut, cutworms (greenish); T worm sp. (cutworm ?)
PR łupłup, worms
cf. PMy *luqu:m, worm (Brown 1990: 18)

* $\lambda$ 'uq, remove from body

W $\quad \lambda$ 'uqe, to pluck (chicken), pick (fruit); $\lambda$ 'uqel, hair to come loose or off; $\lambda$ 'uqča, to pick (flowers); cf. x $\mathrm{Oq}-$-, pull off large slaps of bark
PCC $\quad \lambda$ 'uku', to gut (a deer), cut open; K $\lambda$ 'uk-, gut, degut, take guts out cf. Alsea łi:q-iy-s, feather; łi:x, tail feather (Golla 1997: 162)

* $\lambda$ 'ut, * $\lambda$ 'uč-, apply sharp pointed object; cf. * $\lambda$ 'op, * $\lambda$ 'op-č' - , *łop-č̌h-, insert long things (vertically ?), poke, stick into
W $\quad \lambda$ 'u, stick in, plant; $\lambda$ 'učuna', to stab oneself, to pierce oneself with a sharp pointed object; $\lambda$ 'u•t, stick up, erect something sharp; cf. se- $\lambda$ 'očo $\cdot y a$, mash; q'ay $\lambda$ 'o.ča, chew up; $\lambda$ 'ač-, mash, weight down; cf. łuča, łuče, stab, gig, spear
PCC $\quad \lambda$ 'utu•ko, to scratch (sg.); $\lambda$ 'u•tko, to scratch (pl.) (with nails, claws, brush); K $\lambda$ 'utu-, pinch; $\lambda$ ' oč ${ }^{\text {h }} \mathbf{u}$-, pick up with pinch-like motion
cf. PMy *luč, with reflexes including: remove thorn (with needle, etc.), prick, remove with needle, to gore; Huitoto Murui llutade, to inject, puncture, prick one time with a small thing; Zapotec (Isthmus) rudu, to give a poke, to perforate, to jab (animals); Shuswap łu?, to poke, stab, sting (all from Brown 1990: 23)


## u

*-u, imperative or irrealis stem-deriving suffix (423.22)
See *kay-i/u, shame; *koy-i/u, koyi-?a, hurt, sick, want; *xed-i/u, fart;*k'ah-i/u, wind, wind blows; *k'eb-i/u, loosen by scratching; *lel-a/i/u, make; *wač-i/u, cry; *yal-i/u, leave; *?od-i/u-, itch, scratch
*-V $(\cdot) 1$, stative ? (423.14)
See: *kip-Vl, roll, run continuously; *k'aral, stative of *k'ar-a, scrape (?);*k'uwi•l, bent; *witil(-7a), be fast, do fast; *łaqal, play
*- $\mathrm{V}_{1} 1$, suffix of unknown meaning (511.7)
See: *holol, sunshine; *kopol, pond; *xerel, people of, village; *k'ala(•)l, flowers; *pene(•)l, black oak acorn; *qewel, house; *tahal, tongue; *t'eqel, palm; *yoho(•)l, toad
*-V(•)r, continuative (423.12); see *kim-u•r, rumble, roar; *łon-or, sound bee-like; cf. *har-a', go; *wer, come
*-V•y, iterative (423.13); see *hil-a•y, swing arms; *phek-a•y-i/u ? *hik-a•y-i/u ?, stand

## W

*wač-i/u, cry
W wača', wači/u-, cry, weep, keen, sob, wail
N-BW wOca-, cry
PCC, K wat ${ }^{\text {th}} / \mathrm{u}-$, cry, whine
PR-U wa•thi/u-, cry
SP-A hueti chu huati, I will weep
cf. PR-U waru $\cdot \mathrm{k}$, red; PK watwa•ti, red (prob. originally referring to eyes and face, but in H-U forms also used with light, redwing blackbird, house, which may, however, be loan translations.)
cf. PYn *wa xil, to cry, PM *wak, to cry out (Callaghan 2001: 330); Klamath swaqča, cries, weeps (Barker 1963: 397)
*wak, wide (open ?); cf. *waw, open mouth
W wa k , widen ?; se-wa $\cdot \mathrm{k}$, to open up wide; waku, open it wide!; cf. wa $\cdot \mathrm{w}$, wide open; waw, open wide
PR-U wač'akta, wide
*wal-u, flame, lightning; cf. *k'al, intense visual perception; *nal ? *wal ?, lick;
*q'al-i ?, charcoal
W walu qa , to lighten; $\mathrm{p}^{\mathrm{h}} \mathrm{o} \cdot \mathrm{h}$ walwaluq, flame; cf. Palula, glimpse
N-S woloola, burn
PCC wa•lbok, lightning to flash; wal?a, to flame; K wa•lbok-, lightning to flash, spark; cf. H-U we•la, light
PR-B wa•lboko, lightning
SP-M wal-loo'-mah, cremation; wal'-le, flame or blaze
cf. PU *wil•ep, lightning; PYnim *walam, walma, lightning; Mins wil•ep-y-, Cscr wilep, lightning; PM *wis-p'il, lightning (Callaghan 2001: 323)
*walu, barren
N-G walusa, hermaphrodite [barren-intensive]
PCC walu, barren woman (has borne no children)
*wan, end point
W wan, end, top of tree, tip of nose; wana', -wana, to be or move in a certain direction (toward the end point?); kenwani, evening, late; $M$ wahn', a point
N-H thu ku ke•nwana, sundown, sunset
PT-U wan, point, end
*waqu $\cdot$, *waqo ? log
W waqu•s, log; waq-, to pile < waq, log ends/tips; cf. wosik, hollow log
PK wako• log, limb; pako• foot $\log$ (for crossing stream); cf. PCC wakne, waves
*wasasa, *wasas-7a ?, rattle (rustle ?)
W was, dry leaves, rustle (of dry leaves), make a noise like dry vegetation; wasa•sa, to rattle (not organically), to rattle the instruments to make a specific sound (music), the sound of deer hoof rattles
N-C wâ-sâ-su, rattle (cluster of oak-galls)
PCC sawar, a rattle (of rattler); sawarho, rattling; K wasas?aro, rattling (intr.); wasasamaro, shaking (tr.) it (like a rattle, etc.) [make it rattle]
cf. SP-M pah-sas-lah, elderberry stick
*wataq, frog
W wataqmet, frog
N-W wataq, frog; BP watak, frog
PCC, K, T wata $\cdot \mathrm{k}$, frog
PR-U wata $\cdot \mathrm{k}$, frog, toad
*waw, open mouth; cf. *wak, wide (open ?)
W se-waw, to open one's mouth and leave it open; se-wawča, to open someone's mouth with one's hands
PCC wa•wo?, open up (mouth)!; wawčh ${ }^{\text {h }}$, jaw (the whole thing); K wa•wi/u-, mouth open; wa•wis, hornet?
PR wa•wis, hornet, wasp
cf. Jacaltec yawnomi, to laugh (opening the mouth wide) (Brown 1990: 60)
*way, north
*way-el-ti (with locatives)
W way, north; wa•lti ( $<$ * wayelti), north across canyon or river; waye•l, uphill north
N-G wai, north
PCC, K way, north
PR way, north (close by); wayel, north
SP-M wi-yel'-te, north
*we( $\cdot$ ) 1 , salt
W we $(\cdot) \nmid$, salt, $<{ }^{*}$ wEł, mix, combine, salt, season; cf. wiłewil, people to be mixed together in a crowd
N-S weł, salt; BW wiLca, also
PCC, R we•ł, salt
SP-M wes', salt
*wenem, middle, center
W wenem, middle, center
N-G wînêmpom, aces in the center
PCC, K wenem, middle, center
PR-B wenem, center
SP-M wen'-nem, middle
*wer, come
W wEr-, wira, wer-, come
N-J wey, to come; G weda, I came (greeting); weyam, did you come (greeting); BW we-, come, bring, give; win boya wea', lots of men are coming
PCC, K, R wer-, come
cf. Alsea wi:1-, to arrive, come to stop (Golla 1997: 166)
*wer, come!
W war, come! (cf. har, go!); we•?, come! we?e• war, (be sure to) come!
N-W Tel ba we, come and eat
PK wer, come here! CC, R wer, come!
*were-s, coming, a coming
W weres, coming, nominal stem
PCC po weres yemena, someone coming along the road
PT-U keweti weres, he's coming from house
PR po weres, who's coming? somebody's coming
*were, imperative stem
W were, imperative stem
PCC po pi were•t'i behna, somebody is gonna come tomorrow
PK pile nattuka were-bus, they're coming home
PR po werebo, who's coming
*were, bring inanimate
W were, to bring something inanimate; were $\cdot \mathrm{n}$, while bringing
PCC were', to bring (inanim.), to bring back; cf. weri', to bring along (animate)
were, bring!
pima pi were-sa, he brought that were m ? u , didn't bring it

PK pi were bus, he bring it out to me pe• were•le, (he's) gonna bring something
*wer- $\mathrm{i} \cdot \mathrm{l}$, to bring an animate; cf. -wil, *-i $(\cdot) 1$, animate comitative
W weri $\cdot$ l, to bring something animate, come with someone, bringing someone (live, animate) here
PCC weri- to bring along (animate) pi ?ut wi•tama weri $\cdot$ sa, he brought that man along
PR nay k'elt ${ }^{\text {hi}}$ iła ?ut weri•le, when I return, I'll bring this back (animate?)
*wer-ma, let come, make come (with causative)
W werma•t hara•-wira 7ibi•da, I've got to go; they want me to come
PK ... lew wermaro, to make plants grow (come) ?ut wermato, he'll come to me ("gonna let him come")
*wer, struggle
W se-wiruna, to kick continuously with both feet; se-wirunama, to make someone wiggle by holding on to him when he is trying to get away; cf. ?olwirčuna', to flip oneself up in the air
PH-U weri p'inanta, fight back when trapped
*wey, stuff feathers
W wEy-, wiya, to stuff (feathers only ?); ?el-weyu k'alaq, stuff the feathers in! [stuffed dancing outfit?]
PK weya, dancing outfit; pi weya k'apta, she got caught by a feather
*wi-ta, man; cf. *win, person; *wiy, *wi•, man, husband
W wi•ta, man
N-G notwîta, male supernatural being; G ketewitat, one thousand, one big man
PCC, K, R wi•ta, man
SP-M we'-tah, man, guessing game: the small object
*wik, pull
W wikča, to do, be doing, touch; cf. wihila, to touch
PCC wiči $\cdot \mathrm{si} / \mathrm{u}$, to pull; $K$ wičhi-, pull
*wik, move hips ?
W wik-, sway, rock, tip, prod, nudge, poke
PK wičok, hipbone (the ridge sticking up to left and right)
cf. PMy * nihk, to shake, to move (Brown 1990: 60)
*wik, burrowing owl
W-M wik', poorwill
NG-M wé‘-ě, burrowing owl; T-M wē'-ěk, burrowing owl; C wiŭk, ground owl
PK wik, burrowing owl
${ }^{*}$ wil-i ?, ${ }^{*}{ }^{\text {h}}{ }^{\text {ill-i }}$ ?, smooth (278.); cf. ${ }^{*}{ }^{\text {h }}$ il-i, crawling, slithering; *wil, to coat, coating
W wili•ka, to be bare (of ground); to be a clearing, to be a cleared, flat, brushless (large) meadow; phoyoq wili $\cdot \mathrm{ka}$, to be bald (head smooth); cf. siloqa, to be smooth or slick
N-S wiliika, smooth
PR $\quad p^{\text {h }}$ ilik, slippery (as wet or muddy ground); $p^{\text {hilikmaro }}$ ?ih, you smoothe it out, you polish it
*wil, to coat, coating; cf. *wilaq, earth; *-wil, ${ }^{*}$-i $(\cdot) 1$, animate comitative; *q'ilaq, dirt (earth); *win, see; *wil-i?, *p ${ }^{\text {hill-i?, smooth }}$
W wile', to make paint waterproof by varnishing with salmon skin, perhaps 'to make shiny'; cf. wEl, move swiftly, visibly
PK wi•l-, spread on, put on the surface, scrape on; wi•lisok, paint; peru• wilu•ro, hoarse (throat covered) (cf. W doki thilel, to be hoarse of the throat; analogized in P to wil- ?)
*-wil, *-i( $\cdot$ )l, animate comitative (423.38); see *bohil under *boh, sit, be; *weri•l under *wer, come; cf. *win, person
W -wil, -i( $\cdot$ )l, particular comitative
P -wil, -i', -il, comitative?
*wilaq, *welaq, earth; cf. *win, person; *q'ilaq, dirt (earth)
W wilaq, clay of any color, esp. white; weloq, red clay; łuru qi weloq, white clay
PCC wilak, country, the whole world; K world, all over, everything, valley, country; welak, earth, land
PR wilak, land, earth, ground
cf. PUA ${ }^{*}{ }^{w} \mathrm{i},{ }^{*}{ }^{\mathrm{w}} \mathrm{iya}$, earth
*wile, may it be
W wile, please, let me, well (e.g., wile wi•n, let me see); cf. wil, wake up; wilna, to awake, restore to consciousness, awaken
N-Ha wila, wíle, see, or let me see
PK wi le, happy
PR wi•le, good fortune (?), everything to be on the good side (a lot of songs have that word in them); wi•le wi•le layuk behdi, let everything be ok (in old days when people sneeze, people would say...)
*win, fly
NT-M win'-nah, to fly; S winna, fly
PCC winit-, get up; K winit-, fly
Probably a loan between N and P , but cf. W ken-wisirta, to jump up (when bitten by insect), cf. PW *wer, struggle
*win, in-laws, relatives; cf. *win, person
W wines, parallel cousins, relatives, relations, in-laws
PCC neč'uwin, relatives, kinfolk
PK k'asalwinle, mother-in-law
*win, person; cf. *win, in-laws, relatives; *wiy, *wi•, man, husband; *wi-ta, man;
*wilaq, earth
W win, person
N-BW win, Indian, man
PCC -win, person (nominalizer); patwin, Indian people; K patwin, Indian person (any tribe) (pat-, outside, i.e., "the other" people; cf. Huchnom < Yuki hučnom', "outside people")
PR patwin, Indians
SP-M pot'-too-in, pot'-win, people (Indian); too'-pe-win, first people
cf. PMy *winaq, man, person; Mixe vin-, person; Zoque (Copainalá) win, person, one's self, body; Xinca winak, witch; Yakama winsh, man (all from Brown 1990: 31)
*win- $t^{\mathrm{h}} \mathrm{u}(\cdot) \mathrm{n}$, people; cf. ${ }^{*} \mathrm{tu}(\cdot)$, person, people; $*^{\mathrm{t}} \mathrm{h}(\cdot) \mathrm{n}$, body, whole
W $\quad$ wint $^{\mathrm{h}} u \cdot h$, person, people; wint ${ }^{\mathrm{h}} u \cdot n$ (attributive)
$\mathrm{N}-\mathrm{W} \quad$ wint $^{\mathrm{h}}$ un laxa, talking Indian; S wintuun, person
PCC wint ${ }^{h}$ un, lots of people, crowd of people
PR wint ${ }^{\text {h }}$ un, the Wintun peoples (a name), includes all Patwins and people north
Note PT-U wint ${ }^{\text {h }} u \cdot n$ ?asa, $t^{h} u \cdot n$ ?asa win, lots of people
*win, see
W wi•n, to see, look; wine, to look, see, visit, help, get, bring, fetch
N-BP wina•, wini, to see
PCC, K, R win, see
*win-i-s, see (nominal stem)
W winisana $\cdot$, to show oneself
PCC winis čhu Zut, I see him
PR čhenpa čh $u$ ?ut winisa/winis, I saw him down below
*winwin, see (iterative)
W winwine, many to see, many to look
PR-U no•pma ču winwinis, I saw a deer a lot of times
*wisbo- ? robin
N-H wisbotbot, robin
PCC, K, T, R li•sbok, robin
May be a borrowing between N and P ; however, cf. W č'i•kbas, robin, lit. seed-eater, possibly reshaped from *wisbo- through folk-etymology
cf. Klamath wisgaq, robin; Sahaptin əwísqaqa, robin; Molala wisqaq, robin (Berman 1996: 22)
*witil(-7a), be fast, do fast
W witil, quick(ly), fast; witila, to do fast
N-BW witila-, witili-, run
PCC witi $\cdot l o$, to run; witil?a, to be fast; K witi $\cdot \mathrm{li} / \mathrm{o}-$, to run
PR witi•li/u-, to run
SP-M wit'-tel-loo, run!
*wiy, *wi', man, husband; cf. *wi-ta, man; *win, person
W wi $(\cdot)$ h, wi $(\cdot)$ y (g), wi t (p), wiyi, husband; netwiyi, net-wi $\cdot$, my husband; cf. wi•ye•, to marry; wih, chief
N-S -wii, husband
PCC mat wiy, your husband; K naywi', my husband; cf. CC wiyaba, men
PR-B wi-a, woman to marry
SP-M choo'-yu-we, [her] husband
*woč-, *wočwoč ?, Steller's jay
W woč'ot, Steller's jay; cf. womol, topknot
N-C wát-wat, crested bluejay
PCC, C, K wotwot, poorwill; cf. CC, K, T weswes, Steller's jay; R (Whistler 1976e from Merriam) weswes, mockingbird ? (or Calif. thrasher ?)
SP-M wes', crested jay
*wok, great blue heron, crane
W wok, crane, great blue heron
N-BW woksu, wOksu, crane; C wâk, heron; GT-M wahk'-se, great blue heron (Ardea herodias); wahk', cormorant (Phalacrocorax)
PCC, $\mathrm{K} \quad$ wak, night heron; CC woksu, egret, great blue (any large crane); K wokse, common white egret
PR wakwak, great blue heron
SP-M wahk', night heron; wahk'-soo ?, great blue heron
Widespread areal term; e.g. Yawelmani wa•xaṭ', crane; Palewyami Wah-'het-te, great blue heron (Berman 2002: 438)
*wol, close sides
W wole, eyelid(s); cf. wOw, open and split ventrally; woli $\cdot \mathrm{ka}$, to shrink $<$ wol, slit
PK yaynabe wole, sides (of the house, the retaining wall); C -wol, contrastive, the only, the very (Whistler 1978), H-U woleh, inside
cf. SP-M wol'-lis, ocean
*woq, home
W-C wakpohas, world fire (when the first world was burned)
PK na no wok, my home, my house (the building)
*wuk, nod
W pomin wu•ka, to nod the head once (down); pomin wukwu•ka, to nod assent looking down; ?ol-wukča, to nod head up just once; cf. wOk, scoop
PCC wu•ki/u-, to nod; wudbaya, to nod head forward and back

## $\mathbf{X}$

*xeb, open by scratching or scraping; cf. *k'eb-i/u, loosen by scratching
W xEb-, xiba', to dig, to dig in a hole such as a ground squirrel nest, to uncover an old hole, to take the bark off a tree; xibal, to have earth slide off; xep-, open what is closed
PK $\mathrm{k}^{\mathrm{h}}$ ebu-, eat (an apple), nibble, chew on
Irregular; perhaps imitative or areal influence
cf. PMy *xeb', with reflexes including: open, open what is closed, be opened; Maidu hépesto, crack open, as bread in baking; Shuswap $\mathrm{x}^{\circ} \mathrm{ep}$-t, to blow up, to open, to come open (package, sore) (all from Brown 1990: 24)
*xed-i/u, fart; cf. *xed-i-men, stinkbug
W xEd-, xedis, gas; xida, to fart
PCC se•di/u, bend over, stoop over; sedse $\cdot \mathrm{di} / \mathrm{u}$, to be stooped over; K sedi, raise your back up; sedu•ro, to rear (of a horse, deer, etc.); sete $\cdot$, fart
PR sete•tu, striped skunk ("farter")
*xed-i-men, stinkbug; cf. *xed-i/u, fart
W xedismet, skunkbug, stink beetle (Tenebrionidae) (also kedismet)
PCC sedi, one black stink bug; sedimen, black stink bug (more than one); K sedimen, large black stink bug
*xerel, people of, village; cf. *qewel, house; *xerit, young man
W xerel, settlement, village, where people are living, village site, where could be or had been houses, a flat place suitable for building, a secluded spot; Grace McKibbin: xerilpom, old campground or village where people used to live who are now all dead, the place where one's parents used to live, a sad place
PK lo•lsel, tobacco people, the people at Tebthi
PR -sere, people of ...
*xerit, young man
*xeri-ba, young men
W xerit, young man (18 or 19); xeribas, a group of young men
PCC serita, young boy, young man (up to 20 years old); seriba, young men; K serita, young boy ( $14,16,18$ years old)
PR seritta, young boy, young man; R-B serekta, boy; but Kroeber lists for PR: ilain che'riba, young men, initiates in Kuksu, where *x > č irregularly (Kroeber 1932: 328)
cf. PMis *sali-, boy, young man (Callaghan 2001: 317)
*xew, ask to accompany
W xiwa, ask someone to accompany one
P-T sewu, to get to accompany
*xin, forehead
W xin, hair over forehead, bangs, curl over forehead (Pitkin suggests this may be derived from xi•n, sleep); xink'upa, to cut bangs
PCC, K, R si•n, forehead
SP-G sincheke, eyebrow
cf. Nisenan (Uldall \& Shipley 1966: 229) syn, forehead
*xin-a, sleep; cf. *q'a•q, mental clouding
*xinxina, many to sleep
W xi•na, to sleep; xinxina, many to sleep
N-BP $\mathrm{k}^{\mathrm{h}} \cdot \mathrm{na}$, sleep
PCC, K, R k'ana', to sleep; k'ank'ana(•), many to sleep
SP-V k'ana', sleep
Irregular * $\mathrm{x}>\mathrm{k}$ ', perhaps due to ${ }^{*} \mathrm{q}$ ' $\mathrm{a} \cdot \mathrm{q}$
cf. PYnim *k'aniw ?? to lie (vocalism unclear) (Callaghan 2001: 330)
*xiw, embers; cf. *k'iw, hot rock ?
W xiwe', heat rocks in fire, heat food
PT-U siw, embers
*xiw, spin, swing
W xiwi•la, to spin, twirling, specific dance; cf. siri•wa, whirlwind; kEw , whirl, spin, turn, screw; sEr-, twirl; se-xewel, to be drunk; se-xewe•la, to walk zigzag
PCC siwa•yo, to swing slowly; siwayho, to swing fast
cf. PCC, K sibi•ro, to spin (pl.); sibirto, to turn around (sg.); CC sipi•rmen, whirlwind
*xo-...wi-, band-tailed pigeon
W xowit, band-tailed pigeon
PCC ?omo wil, pigeon; K (wild) pigeon, rock dove, tame pigeon, band-tailed pigeon
PR Tomo•win, band-tailed pigeon (Whistler 1976e from Merriam)
Irregular *x > ?
*xok, basket type (265.)
W xOk-, shaped like a turtle shell? basket-shaped, dome-shaped, coiled, to open circularly; xokot, a specific coiled basket
N-B kōko, basket
PCC $\quad$ Oo $\cdot \mathrm{k}$, any basket; small chokemouth bowl (basket type); K small basket, basket for drinking soup
PR $\quad$ o $\cdot \mathrm{k}$, small, chokemouth globular bowl
Irregular *x > ?
*xoy, lie prone
W tu-xuye, to slide up closer (as when lying on the ground watching something) (cf. suyewilna•, slide, ride on sled; suyu $\cdot q$ ča, slide)
PCC soyt ${ }^{\mathrm{h}} \mathrm{u}$, to lie down; K lie on one's belly; soyti, lie down; H-U soyt ${ }^{\mathrm{h}} \mathrm{i}$, lean
*xun, here, toward self
W xun, toward (oneself), here, nearer, together, along; cf. sunu(s), nest
N-S khunc'aka, hold, take
PCC, K sun, here, this way, toward; cf. sun-, nest
PR sun, here
SP-M soon, here
cf. Chasta Costa xun, there (Sapir 1914: 297); Alsea hų:-, here (Golla 1997: 161)
*xurxur, sugar; cf. *k'ar-a, scrape; *qor-i/u, grind
W xurxur, sugar, pine sugar; cf. sara, sugar pine cones to ripen and open up so that the nuts fall out
N-BW kUykut, kUikUt, sugar
PK $\mathrm{k}^{\mathrm{h}} u \mathrm{k}^{\mathrm{h}} u y$, sugar, sweet substance from sugar pines (in hollow trees); PT-U $k^{\text {h }} u y k^{\text {h }} u y$, sugar
PK $\mathrm{k}^{\mathrm{h}}$ is irregular, perhaps due to borrowing from N or Miwok
cf. Proto-Western-Miwok *kój-, to be sweet (Callaghan 1970: 39)
*xad, pick small things one by one
W xad-, gather small pieces of wood for fire; cf. č'ad-, take off the best part and leave the useless or undesirable part; č'ada•yi, to pull off as leaves from a vegetable; kada•, pick up pieces; suda•, pluck (chicken); side, pick, gather little things
N-BW kadba-, pick
PCC hatt ${ }^{\text {h }} u$, to pick (plants)
PR hatt ${ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, to pick fruit, etc. (one by one)
cf. Takelma k!adãn, I pick them (Sapir 1912: 60 (1990: 76))
*xah, *xir ?, dizzy; cf. * $q^{\text {has-i }} \cdot 1-$ ? a, have impaired vision
W xahi $\cdot$ la, to become dusk; $\mathrm{p}^{\text {h }}$ oyoq xahi $\cdot \mathrm{la}$, to be or get dizzy
PCC hiri•ki/u-, be dizzy; K hiri•ki/o-, be or get dizzy, get drunk; cf. W hir, fire, burn, conflagration (perhaps fire drill motion), under *her-u, motion back and forth
*xoh, pant, grunt
W xoxox̣ča, grunt (bear, pig; cf. kukup'iwit, myth. wolf or mountain lion)
PCC hohi, to pant (any animal)
*xos-a ?, air, blow; cf. *k'ah-i/u, wind; *q’a ?, *q’i ?, cloud; q'os, fog, steam; *q'osu , seek luck; $\mathrm{q}^{\mathrm{h}}$ os-o, lungs
W xo•sa, to be bloated (with velar, not post-velar); xos, fog, steam; \}ol-xusal, be swollen
PCC hasu, to cool off; hasa•ko, draft to be blowing, drafty; K hasa $k$, wind, air; hasi te•p?as, it's steaming (hasi refers to the steam itself, steam coming off)
PR huspayi/u-, to wish, hope
SP-M hah'-se, wind
cf. Alsea (Buckley 1988:27) hã•s, breath
y
*yal-i/u, leave; cf. *yel, back of, behind something; *yi•l-a, send
W yala', yali/u-, to stop, quit, leave
N-BW yala-, leave; kEnyalo'-, throw
PK yali/o-, leave, quit
PR yali/u-, leave, leave behind
cf. Alsea ya:la:s, to come back, return, go home; ta?-ya:l, last thing (e.g., '[they bet their] last thing, possession [on the game]') (Golla 1997: 166)
*ya•pay, summoned gathering; cf. *yoh, supernatural; *yom, doctor, poison
W ya-paya, to argue, discuss, surround enemies, attack, to call people together (for a dance); ya-paytu•, killer spirit, white man, supernatural, shamanistic spirit. (Du Bois and Demetracopoulou 1931: 315: "When you kill a person, his people come to surround you.")
N-G waiyapai, north dance (type of ceremony); yapaitu, spirit; K yā'pai-tu, type of spirit possessed by shaman
PK ya•payo, to dance; ya-payi (noun)
PR ya•payi/u-, to dance; ya•payi, dance (noun)
*yaw, pendant; cf. *law, flabby; *low, hang
W yaw-, flap, be pendant; yawa, to slap up and down; yawal, to have pendant or flabby buttocks, breasts, or penis (derisive term); cf. yawuq, sweet anise
PCC yaw $t^{\text {h}}$ ok, elderberry bush [also k'aw $t^{\text {h}} \mathrm{ok}$, possibly folk-etymologized to yaw]; H-B, T-B, R-B yaw, elderberries; cf. K (Whistler 1976e from Merriam) yawi $\cdot \mathrm{la}$, chaparral honeysuckle?
*yay, base; cf. *yel, back of, behind something
W yay, back, side; yay-kawi, the whole back, the backbone covered with flesh and skin, the ribs in back
NT-M yi'-kow-we, hip
PK yaywere, the bottom, the root, the end; yaysole, yaysoli, buttocks; H-B yay, buttocks; CC, K yay-, to start (to bud, to make a basket)
PR yay, hip, beginning of anything, including a tree, e.g., from the bottom upwards; B buttocks
*ye-, spread to dry; cf. *yeb, rip in half
W ye•ka, to hang up or spread out to dry (as herbs); cf. ?i•ka, to dry by the fire PH-U yewa ro, drying (meat, clothes)
*ye, vocative (531.38)
W ye-, ye - -, kinterm vocative prefix
PH -e-, vocative suffix (Whistler 1980: 216)
*yeb, rip in half (probably of skins and cloth materials); cf. *ye-, spread to dry
W yEb-, yiba•, to rip, rip buckskin, clothes, moccasins; undo sewing; yep-, push up, rip, flap, toss, shake (especially of cloth)
PL-U yepči, half
*yečew, dream
W yečew, dream, to dream
PK yet ${ }^{\text {h }}$ ew-, yet ${ }^{\text {h }}$ ••w-, dream; T yet ${ }^{\text {h }} \mathrm{e} \cdot \mathrm{w}$ -
PR-U yet ${ }^{\text {h }}$ ew-, yet ${ }^{\text {he}}{ }^{-w-}$, dream
*yel, back of, behind something (422.4); cf. *yal-i/u, leave; *yay, base; *?el, in horizontally
*yel-ti, behind, in back of
*yel-in, behind, in back
W yel-, verbal prefix: back(ward), away, behind; yelin, in/at the back, backward, at the rear; yelti, in back of, behind, hind (legs)
N-BW yEl(win), wait
PCC yel?a, late, last; yelti?as, it's late; yel?aro, be behind, come later, be last; yelti, behind; yilti?as, getting late; yelel, youngest, little (finger); K yelin, yilti, behind, back; yel/yil tepiła, last spring
PC yel-, prefix: back, reverse, later, behind (Whistler 1977b)
PR-B yelte, behind
SP-A yelobo, wait for
cf. PMy *?e:l, to go out; *e:l, to leave; Northern Sierra Miwok Rel:y, to leave, to abandon; Central Sierra Miwok ?él:y, to leave, to leave behind (Brown 1990: 35)
*yeme, trail
W yemer, trail, road
N-H yemey, road; S yeme, road
PCC yeme, trail, road; K yeme?, road, trail
PR-B ye•me, road
*yet, name; real, really
W yet, name; yiča, to call by name, to name; yiča, really ...
N-BP ye(t), name
PCC yet ${ }^{\text {h }}$ - to name; -yet, real; K yet, name; yet ${ }^{h}$ - , to name
PR yet, really ...; B yet, name, U yet ${ }^{\text {ho }}{ }^{-}-$, to name
*yi $11-\mathrm{a}$, send; cf. *yal-i/u, leave; *yel, back of, behind something
*yi•la-le, going to send
W yi la, to send someone, let someone go; yi•lale, let's leave
PCC, K yi 1 la , to send; K yi $\cdot$ lale, going to send
PR-B yi $\cdot \mathrm{la}$, to send
*yiłma, heavy
W yEt-, yiłe, be loaded with heavy packs; yiłma•, to be heavy
N-S yiłma, heavy
PCC, R yiłma, heavy; K yiłłma
SP-M ye ${ }^{\text {ch }} 1 e^{\prime}$-mah, heavy
*yir? *lur ?, leg (279.)
W lurur, leg
PCC, K yir, leg; BW leg from knee on down
SP-M yēr, whole leg
*yiwit, acorn soup
W yiwit, acorn soup, acorn mush, wild oats mush, $<$ yEw-, mix, stir; se-yiwe, to stir cooking
N-W yiwit, acorn soup
PCC yiwit, acorn soup
PR-B yuwet, acorn soup
*yo•, exclamative
W yo', exclamation; cf. yo, vocative; -o, emphatic
PK yo• ?olphutta, sigh
*yo', move away; cf. *yo(•)w, lose, miss; *yo•w, desolate
W xan-yo•ma, to chase away verbally, tell someone to go away; cf. yopuna•, to say good-bye, take leave; yOq-, wash, rinse (off)
PCC yo• $t^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, yolt ${ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}$-, to move, change residence; cf. yo•w-, lose
*yodo, *woto ?, peppergrass (283.)
W yOd-, pick or pull grass; yodos, picked/plucked grasses
N-G yodôh, peppergrass
PK wotok ( $\mathrm{t}^{\mathrm{h}} \mathrm{o} \cdot \mathrm{k}$ ), peppergrass
*yoh, supernatural; cf. *yom, doctor, poison; *ya•pay, summoned gathering;
*yoho(•)1, toad; *yo(•)w, lose, miss
W *yo•, supernatural, poison, curse, think, behave, accomplish by non-physical means, i.e., by supernatural or by mental means; to be homesick, lonesome; yo-, supernatural power; yoh, shaman novice; nomyoh, a specific tribe of Indians from the coast, people who turned at will into animals, potent spirits of the Indians of the northwest coast of California who turned themselves
into beasts; M yah', doctor or shaman
PT-U yuhu•la, devil
*yoho( $\cdot$ )1, toad; cf. *yoh, supernatural
W yoho-lmet, toad; the mythological Toad who predicted the end of the world and wove a basket to serve as an "ark"; frog, waterfrog, tree frog ?; cf. yoho 1 la, to have pimples
NT-M yo-hō' ${ }^{\text {ch }}$, toad (Bufo); NG-M yah-hǒs ${ }^{1}$, toad
PK yohol (watak), toad (originally pimple frog ?; cf. *wataq); H-U yoho•l, big toad, frog
According to Whistler 1976e, PK yohol, toad, is a borrowing from Nomlaki; if this is the case, the term may only be reconstructible for Proto-Northern-Wintun. Cf. however PT-U yuhu•la, devil, under *yoh
*yok, meadowlark
N-C yó-ko-lot, meadowlark; yo-ko-ló=ya, yellow (meadowlark - ?); G-M yo'-kullut; T-M yo'-kǔl-lah
PR hayu•k, Western meadowlark; cf. yoka, brown towhee (Whistler 1976e from Merriam)
SP hayuk, Western meadowlark (Whistler 1976e from Merriam)
*yok...1-, *yol...k- ? white oak acorn
W yokila, white oak acorn
PT yulak, long variety of acorn; cf. yuy, long
PR yu•la, long acorn from the hills (white oak)
*yol, a while; cf. *?ol, up
W yole, a while, not right away
PCC yolo, for a while
*yo 1 , snow
W yo•la, snow
N-B yōla, snow
PCC, K, R yo•l, snow
SP-M yō-lō, snow
cf. PUA *yu, snow
*yom, doctor, poison; cf. *yoh, supernatural; *yo(•)w, miss, lose; *ya•pay,
summoned gathering
W yOm-, poison, magic, shamanistic power to poison, in: yomluli, flower possessed by shamans; yome•n łiya, to poison by curse, witchcraft; M yum', poison; cf. yo•m, poison; yo, supernatural power
N-H yom, doctor; G yôm, poison
PCC, K, R yomta, doctor; yomba, poison man; A-U yom, kind of power cf. Maidu (Shipley 1963: 247) jòmím májdy, shaman; Nisenan (Uldall \& Shipley 1966: 273) jom, shaman; PUA *yo, *yowa, *yoya, cure (reflected as "shaman,
medicine" in some daughter languages); Mil jómta, doctor (Callahan 2001: 321 suggests this may be a loan from Patwin); PM *jom, spiritual power (Callaghan, ibid.)
*yono, buckeye?
W yonot, buckeye, < *yon, that which is shaken ?; cf. yin, shake
PCC ?u•nu, buckeye ball; K ?u•na, fruit of buckeye tree; H-B ?u•no, buckeye
PR-U ?u•no, buckeye
SP-M oo'-noo, buckeye
Whistler 1977a suggests that the P forms are borrowed from Miwok, citing PMi $\mathrm{u} \cdot \mathrm{nu}$. This is a good possibility since the P and W forms do not correspond regularly. However, cf. the loss of P y in *yulyul, rot
*yor, *yor-i-Pa, *yor-a/i/u-, send after, direct to
W yOr-, yura•, yori-, to send someone after something, hire; yo(•)runa•, to work
PCC yoru, to tell to, to direct one to; yori?a, to work; K yora-, yori?a-, yoro-, work
PR yori?a, (to) work
*yoryor, *tortor ?, cicada (280.)
W yo (•)ryorh, "June bug," tree cricket
PCC to romen, katydids; K June bug; T-U tortor, cricket
*yo(•)w, lose, miss; cf. *yo , move away; *yo•w, desolate
*yo(•)wu-na, miss (reflexive); cf. *yoh, supernatural; *yo•w, desolate; *yom, doctor, poison
W yowuna', to look for or worry about someone; yo•wanuma', to be quiet, quiet down (wind or storm), to be out of sight; yowuma•, to startle, scare; yo•wana, to look for someone, to expect someone home, to be lonesome for someone
PCC yo•wunan-, miss someone; yo•wi/u-, lose, get lost, be missing; K yowi/u-, lose, get lost; yoha/o-, disappear, spoil
PR yo•ma-, lose; B yo•wo, to disappear
*yo•w, desolate; cf. *yo(•)w, miss, lose
W yo.w, desolate
PCC yo•wes, ocean
PR-B yo•wes, ocean
cf. SP-M wol'-lis, ocean
*yuken, enemy
W yukeh, enemy, enemies (the source of the name Yuki); yuken, dangerous, at war, Shasta (attributive)
N-G yukên, enemy
PCC yučin, enemy
PR-U yučen, soldier Indians
*yulyul, rot
W yulel, to be rotten, spoiled; yulyulel, a lot to be spoiled or rotten
PT-U ?ul?ulumas, rotten, spoiled
cf. Northern Yana and Yahi yuu-, yupla-, rotten (Sapir \& Swadesh 1960: 192)
*yuq-čh ${ }^{\text {h }}$, shake, wake up (tr.)
W se-yuqe, earth to shake, to shuffle one's feet; yuqu•ra, to shake, tremble, shiver; yuqča, to wake up (tr.)
PCC yukthi, to pat dust off, shake clean; yuki/u-, to wake up (tr.); K yukt ${ }^{\text {h} u r o, ~}$ shake out (last bit out of sack), to flap (cloth to get dust out)
PR yuku-, to wake up (tr.); B yokto, to shake
cf. PMy *yu:q', with reflexes including: stir, shake, shake up, earthquake, and other similar meanings; Yuki yuk-, shake, swing, dangle; Zoque (Francisco León) yo?ko?u, it shook it up; Populuca (Oluta) tinyukyišpe, I am shaking it; Totona yu ku ?, it rocks it, it shakes it; Tlingit sha-ka-ya-yook-, shake (general); Yaqui yókte, to shake (a tree, etc.) (all from Brown 1990: 42)
*-?a, have (auxiliary) (421.4); cf. *?ab-, *?ap-, carry on back
W - a , subordinating suffix of temporal anteriority, "after having..."; -a, -a•, indicative stem suffixes
PCC $-7 a$, to have (auxiliary, verb-deriving suffix)
*2ab, *?ap, carry on back; cf. *-7a, have (auxiliary)
W Taba•, ?apa $\cdot$, to carry, pack on back
PCC Tapa•, to carry a person on the back; ?aba•, packing basket, burden basket; K Paba', pack basket, funnel-shaped basket used to gather seeds

SP-M ab-bah', ah-bah, burden basket
cf. Northern Sierra Miwok ?apa•t-y-, to pack, carry (a baby) on the back (Callaghan 1987: 265)
*2al-, hurt
N-BW alama-, to hurt
PCC Zalba•ki/u, to strain a muscle; K Zalba•ki/u-, to hurt, sprain
*?a•1, *?al?al, crow
W ?alal, $3 \mathrm{a} \cdot \mathrm{ł}$, crow
NG-M ah'-lahs, crow; T-M ahl'-lahs; C á-lahl
PCC, T 7a•l, crow; K 7a•l, 7al?al, $\mathrm{a} \cdot \mathrm{l}$ lal
SP-M ahl', raven
*?ał-a, crawl in, go in, sun to set
W Tała, to crawl into, enter a hole, sun to set
PCC Pał-a, to precipitate, to go in, sun to set; K go in (as squirrel into hole in tree)

PR Tał-a, get darker and darker, towards evening; Tałas, evening cf. PMy *ahlay, under, below, down (Brown 1990: 58)
*?ama-n, grandmother (with kinterm absolutive); cf. *?apa-n, grandfather
N-W ne-čəman, my grandmother (Whistler 1980: 242)
PCC Tam, grandma (voc.); ?amaču, my grandma; ?uythama•n, his grandma;
K ?amačh u, grandmother; ?am, grandmother (address)
PR Pamak ${ }^{\mathrm{h}} \mathrm{u}$, grandmother; ?ami, granny (as kids say, for short); ?am, grandma!
SP-M ah'mah-choo, father's mother; A ama, grandmother
cf. PMis *?am( $\cdot$ )a-, grandmother (Callaghan 2001: 335)
*?an-, turtle; cf. *?anaq, body joint
W Ta•n-p ${ }^{\text {hoyoq, turtle head }}$
N-B an, turtle; M ahn'-ko'-what, turtle; BW Taankoham, turtle
PCC ?ano•, turtle; K Ranow, turtle
PR ?anu•s, turtle
SP-M ah'-nó', turtle
cf. PMie *?aw $(\cdot)$ an $\cdot \mathrm{a}-$, turtle; Yn on, turtle (Callaghan 2001: 326)
*?anaq, body joint, knee; cf. *?an-, turtle
W Panaq, joint of the body; may Ranaq, ankle
N-BW anaq, knee
PK Tanak, knee, elbow
cf. PMie *hon•oj, *ho•noj, knee (Callaghan 2001: 320)
*?apa-n, grandfather (with kinterm absolutive); cf. *?ama-n, grandmother
N-W ne-čəpan, my mother's brother (Whistler 1980: 242 suggests that this form originated from a metanalysis $* *$ net-hapan $>$ ne-t+hapan $>$ ne-čəpan)
N-C ně-cha-pa-sá-ka, father's father, mother's father
PCC -thapa $(\cdot) \mathrm{n}$, grandfather, mother's or father's brother; 7a $\cdot p$, 7a paču, grandpa;
K ?a•p, grandfather; ?a•pačh $u$, grandfather
PR Ta•pačh $u$, grandfather, uncle; R-U $\mathrm{Ta} \cdot \mathrm{p}$, grandfather (voc.)
SP-M ah'-poo-choo, father's father; A apu, grandfather
cf. W ha•pa, father (voc.)
cf. PMie *pa•pa-, grandfather, PCo *pa•pa, grandfather, PU *pa•pa, grandfather, PYgen ${ }^{*}$ no- $p^{\mathrm{h}} \mathrm{op}^{\mathrm{h}}$, father (Callaghan 2001: 335)
*?a•q-7a, be bitter; cf. *?ay-...1, *?uy-...1 ?, sour; *?oq-č̆ $-\mathrm{i} / \mathrm{u}$, vomit; *?a•w-a, unripe, sour
W $\quad$ Pa qa, to be bitter
PK ?ak?a-, ?ak?aro, bitter

*?at?at, *?ač?at ? magpie
N-B atat, blackbird; H 7a•t?ał, magpie
PCC $\quad$ a•č?ač, magpie; K T yellow-billed magpie

PR Tač'at, magpie
SP TačTač, yellow-billed magpie (Whistler 1976e)
*?a•w-a, unripe, sour; cf. *?ay-...1, *?uy-...1 ?, sour; *?a•q-7a, be bitter
W $\quad \mathrm{a} \cdot \mathrm{wa}$, sour, spoiled, unripe, to be unripe (of berries, such as blackberries, etc.)
PCC $\quad \mathrm{a} \cdot \mathrm{wa}$, to behave as a spoiled child; ?awatal, yellow
cf. PR-B ?uwas, grape; PR-U ?u•was, grapes $<$ Spanish uva ?
*Ray, exclamative
W Tay, uninflected exclamative, ingratiating, weak "please"
PK p'epel muhuse 2ay, let's sing together
*?ay-...1-, *?uy-...-1 ?, sour; cf. *?a•q-?a, be bitter; *?a•w-a, unripe, sour; *?ey, bite
W ?uyu $\cdot$ la, to be sour; ?uyu $\cdot 1$, p'uyu $\cdot 1$, grape
N-Ha uyúlu, grape; T-M i-ye'-kah, sour
PK ?ay?a•yuma, sour
PR-U ?al?a•lus, jaw feels funny when you bite; cf. T-U Pal?alomas, bitter-sour like apple
*Ray-čh - , wink, squint?
W ?ayča, to make up to the opposite sex, to flirt, to invite $<$ ?ay, flirt, prostitute, promiscuous
PA-U Tayču-, squint
*?e-, demonstrative and quasi-pronominal third person proximal root; cf. *?iy, be, do, use (non-distal ?)
See: *Rew, *?ewe-r, *?ewe-t, *?ewe-t-no ?, *?ew-pel
$\mathrm{W}, \mathrm{N}, \mathrm{P} \quad$ ?e-, demonstrative and third person proximal quasi-pronominal root
*?el, in horizontally (prefix and independent root) (422.5); cf. *-e•l, *-el, locative, toward, in (horizontally ?)
W $\quad$ Pel, in (prefix and independent root)
N-S Pel?ew, in; BW ?Elba, eat
PCC, K, R Tel-, in, into; CC Rel, inside (independent word; e.g., pi hamtaro bo•s keweła ?el, he's sitting inside the house)
SP-M el'-bot'-te, in
*Relew, no, not
*Rele•s (nominal form "there is/are no...")
W Pelew, no, not; Pele•s, nominal stem; Pitkin suggests *-w, privative
N-S Relew ... mena, not; B elēwa, no
PCC, K Tele•, not to have; T p'ata•m Tele•s, there's no sparks; K Tele•s na•no, no, it's mine
PR Tele•-, not; ču Tele•s, I refused, I didn't go along (with them)
SP-A ele, no
*?el-i, wild potato
W Teli, wild potato $<$ ?El-, dig by scraping
$\mathrm{N}-\mathrm{C} \quad$ ě-li, bulbous and tuberous roots
PCC Teli, Indian potatoes, wild potatoes; K bulbs, edible roots; K , T blue dicks (Whistler 1977a suggests "Brodiaea pulchella" for *?eli, but it may also be a generic term for bulbs and roots)
*?eł, pay
W ?Eł-, ?iła, to pay, be loaded, fully recompense
PR ?eyłeye, to sell
*?em-, hold pectorally; see *?imit, breast, milk
*Rew, proximal third person singular subjective (531.14)
W ?ew, proximal third person singular subjective generic aspect
N-W ?ew, proximal third person singular subjective
PCC, R Rew, proximal third person singular subjective
SP-M ā'-oo, now
*?ewe-r, proximal third person singular inalienable possessive and genitive
W ?ewer, proximal third person singular inalienable possessive and genitive
PCC ?ewey, proximal third person singular inalienable possessive and genitive
*Rewe-t, proximal third person singular objective
W ?ewet, proximal third person singular objective
N-J et, that
PT-U ?e•wet, this, that (animate)
PR ?ewet, proximal third person singular objective animate
*?ewe-t-no ?, proximal third person singular alienable possessive
W Tewertun, proximal third person singular alienable possessive
$\mathrm{N}-\mathrm{W}$ ?etum, proximal third person singular alienable possessive animate possessed
?eto, proximal third person singular alienable possessive inanimate possessed
PA-U Rewetno, proximal third person singular alienable possessive inanimate possessed
*?ew-pel, proximal third person dual subjective
W ?ewelel, proximal third person dual subjective generic aspect
N-W ?ew-palel, proximal third person dual subjective (the use of "two" here may be a loan translation rather than a dual)
PCC Tewpel, proximal third person dual subjective
*?ey, bite; cf. *?ay-...1, sour
W ?Ey-, ?iya, to bite, grasp in the mouth gently or softly
$\mathrm{N}-\mathrm{S}$ ?eya, to bite
PCC, K ?ey, to bite; K T R gnat
cf. Klamath (Barker 1963: 547) $7 \mathrm{e} \cdot \mathrm{y}$ ', black weevil

* $\mathrm{i} \mathrm{i}(\cdot)$, * $\mathrm{i}(\cdot) \mathrm{w}$, acorn

W $\quad \mathrm{i} \cdot \mathrm{w}(\mathrm{g})$, acorns; $\mathrm{i} \cdot \mathrm{h}(\mathrm{p})$, one particular acorn
N-W Tiw, acorns
PCC Tiw, dry acorn (ripe, but unshelled on ground); K pile of acorns, acorns gathered and piled together, one acorn from the valley oak
PR $\quad$ i, (green) acorns (on tree); i i , any acorn, acorn (specific kind), valley oak acorn; 7i, Q. lobata
cf. PUA *k ${ }^{w}$ i, *kwini, *wi, acorn; PMy *i:ya:x, seed (Brown 1990: 60)
*?ib, *?ip, shimmer; cf. *?il?il, glare, reflect
W Tipo $\cdot q$ a, to glitter like diamonds, to sparkle
PK Tibi, mirage (in hot weather heat makes everything shimmer, sometimes makes reflection)
*Tilay, *?el-, baby, child, small; cf. *?in, small
W Tilay (g), Tilah (p), baby, child, small
N-H,S ?elet, infant; T-M el-let', infant; ē-le'‘st-ět-win, little boy (4-12); W ?ilis-t'et, small
PCC Tilay, baby; K Pela•man, child; Relayč̌ ${ }^{\text {h }}$, baby; Rilay, baby, one kid
PR Tilay, small child, small
SP-M el-lah'-men, young woman; ah-lah'-win, many children; el-lahn, el-li'-mah, little boy (4-12)
cf. PUA *?ili, *?ali, small (*?ili is reflected as "baby" in some daughter languages);
PMiw * Yélaj, child (Callahan 2001: 317 suggest this form is most likely a loan from PCC)
*?il?il, glare, reflect; cf. *?ib, *?ip, shimmer
W ?il?iloqma, a mirror, anything that reflects, something shiny; cf. ?al, glimpse
PCC $\quad$ illi $\cdot 1 \mathrm{l} / \mathrm{u}$, to be dazzled, blinded; K Til?iluma-, glaring, shining, too bright to look at
*?imit, breast, milk; cf. *?u•m, fill with liquid
*?em-, hold pectorally
W $\quad$ ii $(\cdot)$ mit, milk, breast; 7 Em -, hold pectorally, carry in arms, embrace
N-BP ?imit, breast
PCC ?emi/u-, to hug; K ?imit, breast, milk; ?emi/u-, hold in arms (as a bundle); T ?imit, breast
PR ?imik, woman's breast; ?emu-, carry or grab in the arms; B ?emet, breast
SP-M im-meet', female breasts
cf. PMy *?i:m, breast; Central Yupik emulek, nipple; Choctaw ibish, nipple (Brown 1990: 33)
*?im(il), blackberry
W ?im, berry, blackberry, gooseberry
N-BW imil, blackberries; S ?imiil, fruit; H ?emmil, ?emil (?), berries; T-M $\overline{\mathrm{e}}^{‘}-\mathrm{me} \overline{\mathrm{e}}^{`} 1-$ bah ${ }^{\text {ch }}$-i, blackberry (rubus vitifolius); NG-M e-mil, blackberry
PCC, K, T ?imil, blackberry, blackberries
PR-B ?emil, blackberry
SP-M e'-mil, blackberry
cf. Klamath ?iwam, huckleberry; Molala ?i:m, huckleberry (Berman 1996: 21)
*?in, small (intensive ?); cf. *?ilay, *?el-, baby, child, small
W Tina, intensive diminutive
N-B inīstet, small; k!aina, boy; S 7iniisa, small; ?iniste, few
SP-M hin'-nah', baby
*?irik, ash tree
W Tirikmi, cotton tree
PT $\quad$ irit, tree ash (Whistler 1976e from Merriam)
PR-B ?eret, ash tree
*?i•r?ir ?, sparrowhawk
W $\quad$ i $\cdot \mathrm{r}$ ? ir ( g$),$ ? $\mathrm{i} \cdot \mathrm{r}$ iirh ( p ), sparrowhawk, little red-tailed lizard hawk
PCC, K, T ?it?it, sparrowhawk
PR Tič'it, sparrowhawk
SP Tit'it, sparrowhawk (Whistler 1976e)
cf. Chinook it! $\bar{e}^{\prime} t!\overline{\mathrm{e}}$, hawk (stem: t!'̄e) (Boas 1911 (1969): 655)
*?iy, be, do, use (non-distal ? cf. *?u-, do/be at a distance); *?e-, demonstrative and quasi-pronominal third person proximal root
W Tiye, ?i-, ?ih, ?is-, be, do, use, put; auxiliary verb of doing nearby; ?ise•, perfective auxiliary; ?ibe', are, imperfective auxiliary
P $\quad$ i $\cdot$, to do, to use (irregular $<*$ Tiy) (Whistler 1981) ?i, to be (copula) (inflectional aux. suffix) (Whistler 1981)
PCC pima piču $\mathrm{i} \cdot \mathrm{t}$ 't' , I'm gonna use that pima ?ile, I'll use it
Since this root is related to PW *?ew, proximal third person singular subjective, cf.
 this near; PYnv *hi?, he? $<* *$ hi this near (Callaghan 2001: 328)
*Tih, imperative stem
W ?ih, imperative stem
PR ?ewun ?ih, do it like this!
*?i-s, nominal stem
W ?is, nominal stem
?iskuyam, do you want it?
PCC pi layuk wi•ta ?is, he's a good man
*?od-i/u-, itch, scratch body
*?od-u-na, scratch oneself (with reflexive)
W Toduna, to scratch (oneself); ?Od-, scratch, tickle, measles (chicken pox); ?uda , to scratch (animal or person)
N-S ?oduna, scratch
PCC ?odi-, to scratch (oneself, just fingers moving), scratch with hand (a flipping of fingers, as scratching one's side or back); K Zoduna-, scratch oneself; ?odi/u-, itch, tickle
PR Todi/u-, itch, scratch
*?ol, up (prefix and independent root) (422.6); cf. *yol, a while
*?ol-e•l, up, above
W ?ol-, ?ole•l, up, above
N-H Tolel, up, heaven, sky; BW Tol-, up
PCC ?ole•l, up, up high; ?olkiri, to pick up with one hand; K Tol, up; ?ole tuka, up(wards)
PR Tolel, up (just upwards direction)
SP-M o-lel', up
*?olhen, late
W Tol-hen, late (e.g., ?ol-hen ken-panas-biyak, she gets up late)
PCC ?olheni, fall
*?om, pet?
W ?ome•, lullaby; ?ome•hča, to rock baby in arms
PCC ?om?o mi , to kiss
PR ?omoy' (?omoy'), a greeting (along with patting the arms)
*?oq-č̆ $-\mathrm{i} / \mathrm{u}$, vomit; cf. $*$ ? $\cdot \cdot \mathrm{q}-$ Pa, be bitter
W Zoqča, to vomit; アoqči/u-, nominal and imperative stems
N-S ?oqca, to vomit
PCC $\quad$ Oo $\cdot \mathrm{kt}^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, to vomit; K Rokt $^{\mathrm{h}} \mathrm{i} / \mathrm{u}$ -
PR $\quad$ okt ${ }^{\mathrm{h}} \mathrm{i} / \mathrm{u}$, to throw up
*?o•n, gather, gathering basket
W ?o.n, shallow and round or shovel-shaped tray (open twine); ?o•nk'opi, conical burden basket, a specific funnel-shaped sifting basket, open funnelshaped main food gathering basket, lattice Indian sifter basket (sifts out manzanita berries from leaves), specific basket, gathering funnel, loosely woven, open weave basket carried on back
PT-U ?o•no, to gather
*?u, do, be (distal), copula; quotative root
W ?uw, auxiliary copula verb of doing distally
PC - ?u, auxiliary "to do, to say" (Whistler 1978); root for third person nonproximal and various deictics such as: PK ?u•sani le•nčhul, day before
yesterday; ?e?u•ła, this time of year; ?upu, evidential of hearing, they say, I hear; PK pi?uro, but; PCC pi?u, things ["this that"]
SP-M oo-e, his or hers
*?u-le, going to do/be at a distance
W ?ule•s, would do, must do; ?ule•s ?uni, just like that, almost like that
PK čh u pi?ule, I'm gonna do that
$\check{c ̌}^{\text {h }} \mathbf{u}$ ?ew?ule, I'm gonna do this way
*?u-ma, thus (with causative, see *-ma)
W ?um-, demonstrative with causal force (?uw-, distal doing +m , causative); ?uma', thus, that way
PCC $\quad \mathrm{p}^{\mathrm{h}} \mathrm{o} \cdot$ mint $^{\text {h }}$ is pi?um 7is, fire went out by itself
pi?um?u, don't do that, don't be that way
PK mi ?uma say, are you done?
pi ?uma bes, that's done
pe?uman mi lahit' isay, how you gonna do that?
*?una, *?uni, thus
W ?un-, be/do thus, then (root for quotative and sentence connectives); ?una', do or be thus, and then, at last, now, finally, that's enough (sentence connective implying change in focus or topic, often paragraph division); ?uni, be thus, do thus, like that, like this, and then (sentence connective and quotative, indicates that a quote follows or has been made)
P -?unan, evidential (someone else's definite assertion; with reflexive) (Whistler 1986)
PC ?unibe $\mathfrak{F a}$, even though ? pi?un pi?un, that's right! that's right!
PK pe?uni mi lahit'isay, how you gonna do that?
PR pi?un 7ih, go ahead and do it that way
*?ut, the other ? (with objective case ?)
W Put, sentence connective, then, and then, so then, and yet (switch reference), clause connective which implies a change in subject
P ?ut, non-proximal third person animate objective
cf. PMy *ut, to finish, to come to pass (Brown 1990: 58)
*?u•m, fill with liquid; cf. *?imit, breast, milk
W $\quad \quad \quad \mathrm{u} \cdot \mathrm{m}$, to fill the mouth with water to inflate the cheeks
PK sa•k ?umthuro, bruise ("bloodshot"); cf. ?u•mumen, tripe, second stomach; ?u•numen, second stomach of ruminants [dissimilation $<$ ?u•mumen ?]
cf. PMy *?u:m, *u:m, with reflexes including: to have something in the mouth, to have water in the mouth, to have a mouth full of liquid or food, to sip, take a mouthful, hold in mouth, to rinse (the mouth); Aymara umku日a, to fill the mouth
with food or drink without swallowing (uma = water); Aguaruna umut, to drink, a drink (Brown 1990: 48)
*?ut'a, after that ( $<$ *?uw, do/be at a distance + *-?a, have, auxiliary)
W Put'a, and after that ( $<$ ?ut + ?a)
PK ?u't'atupa, day after tomorrow

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Note: The PW forms in this index are not translations of the English entries. They are for lookup purposes only.
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doctor, poison, *yom
dog, *suku
dome shape (hard), *q}\mp@subsup{}{}{\mathrm{ h}
doorway, entrance, *pes
dove (mourning), *puluq
down, *k'en
drag, *qir
dragonfly, *t'oli
dream, *yečew
drill, *sič-i/u
drink, *bol-a, *teth-i/u
drink/eat acorn mush, *łup-e/u
drown, *t'uk-u
drum, *tiCe
dry, *q}\mp@subsup{}{}{\textrm{h}}\mathrm{ on
dry (spread to), *ye-
dry and stiff, *č'oq
dual, *-pel
dubitative, subjunctive, *-m
dull, *q'i·1
dull (of senses), * }\lambda\mathrm{ ' 'ik
dump (granulated solids?), *t'hak-čch-i
ear, *ma·t
earth, *q'ilaq, *wilaq, *q'i(`)r
east, *puy
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eat, *ba.
eat/drink acorn mush, *łup-e/u
eat with someone, *thil-?a
embers, *xiw
emerge, sprout, cross (meet), *tep-i/u
end point, *wan
enemy, *yuken
entrance, doorway, *pes
esophagus, throat, *peru*
exclamative, *?ay, *yo
exhaust, wear out, *łet
eye, *tum
eyelashes, *tum
fade away, *lim
fall, *łah, *dil-i, *t'al-a
fan, wave, gesture, *liw
far, travel, *kel-
fart, *xed-i/u
fast (be, do), *witil(-7a)
fat, *hu·m
father, *tah, *ta-(·)n
fear, *čhiri
fear a loss, suspect, *ha}\cdot\textrm{q}-\textrm{a
feast, *daw
feather, *k'alaq
feathers, *phit
feces, *č'en-i
feed, *ba
fight, *łik-u-p'ur-i
fill, *par
fill with liquid, *?u·m
finger, hand, *sem
finger (verb), *t'ul
finish, * }\lambda\mathrm{ 'aq
finish off, gone, *ker-u
fire, * p}\mp@subsup{}{}{\textrm{h}}\textrm{o
fire, to light a, *č'ay-a
first person pronominal root, *ne-
first person subject, *-da
first, before, ahead, *tu
fish sp., *čhi.r
fishbone, *č'us
fisher ?, *łom-
fit, * \lambda'ap-u ?
fix up, straighten up, *moq
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flabby, *law
flame, *qul
flame, lightning, *wal-u
flat, *dal
flea, *k'ok'o
flint, arrow, knife, obsidian, *doqo
float, *p'ho-
flow, *č'oł- ?
flowers, *k'ala(`)l, *lul
fly (verb), *win
fly, go up, *tewe
flying squirrel ?, *q'an-łala ?
foam, *łos
fog, *t'umi
fog, steam, *q'h
foliage, leaves, *sala
follow, track, *may-a
food, *ba
foot, *may
forehead, *xin, *tey
forget, *q'id-u
former, old, already, long ago, past demonstrative, *ho-
fox, *ha·w
frog, *wataq
front, *daw
frost, *kik-i
full, *hur, *par
gall, *sili
gap, *kalay
gather, gathering basket, *?o`n
gathering, *ya-pay
genitive case, *-n ?
genitive case, *-r
gesture, fan, wave, *liw
get, own, have, *ke-
gig, spear, *łew ?
girl, *lo·y-, *p'ukuy
give, *doy-i/u
glare, reflect, *?il?il
glide by, *leh
go, *har-a
go in, crawl in, *?ał-a
go out, pour out slowly, *p'e'1 ?
go up, fly, *tewe
going to, intentional future, *-le
```

gone, finish off, *ker-u
good, *čal-a
goose sp., *laq
grab a handful, *q'or
grandchild, ${ }^{*}{ }^{\text {č }} \mathrm{a}(\cdot)$ y
grandfather, *?apan
grandmother, *?aman
grapevine, *łoy...m
grasp in one or both hands, ${ }^{*} \mathrm{p}^{\mathrm{h}}$ em ?
grass (dry?), * $\lambda$ 'aqa
grass, green, *č'aro $\cdot q(-i)$
gray hair, *č ${ }^{\text {ha }}$.hay
great horned owl, *kudu•
green, grass, *č'aro $\cdot q(-i)$
green heron, *qa-
grind, *qor-i/u
grind, sharpen by filing, *lor
grizzly ?, *kuku
ground, *po•m
ground, dirt (earth), *q'i(•)r
ground squirrel, * $\lambda$ 'et
growl, *q ${ }^{\text {hor }}$
grunt, pant, *xoh
guts, intestines, *pot
hail, *k'il
hair (facial or animal), *č'ekey
hair: pubic, body hair, *seke-
hand, finger, *sem
hang, *low, *č'aq-a•
happy, *lom, *doq-
hard, to be, *paq
hard dome shape, ${ }^{*} \mathrm{q}^{\text {h }}$ olo
hat, *thak
haunt, *holow
have, *-? a
have, own, get, *ke-
hawk sp.: Cooper's or marsh hawk ?, *k’ililuk
hawk sp.: red-tailed ?, *čeqčeq
hawk sp.: Swainson's ?, *lik-
hawk or falcon sp., *qačit
head, *p ${ }^{\text {hoyoq }}$
headband, *kip-
hear, *mut-u
heart, *phur-u
heart, core, *č'idik
heavy, *yiłma
help, *her
hemp, milkweed, *p ${ }^{\text {he}}$ - 1
here, toward self, *xun
heron: great blue, *wok
heron: green, *qa-
hiccough, *q'eq-a ?
hide, buckskin, *qo(•)la
hill, *bul-i
hip, thighs, *somVk
hit, *čhep
hold in hand, *sat
hold pectorally, *?imit
hole, *holoq
holler, *nił-u
home, *woq
hooked strap, strap with hook, *lak-o/u
horn, *k'il-i
hortative, let, *-di
hot, *pil-a.
hot rock ?, *k'iw
house, *qewel
hull, *č'íw
human classifier ?, *-ta
hungry, starve, *per-i/u
hurt, *?al-
hurt, sick, want, *koy-i/u
husband, man, *wiy
impaired vision, * ${ }^{\text {h }}$ as- $-1 \cdot-7 \mathrm{a}$
imperative or irrealis stem-deriving suffix, *-u
in horizontally, *?el, *-e-1
in-laws, *win
in-law one generation removed, spouse's parent, child's spouse, *t'e(•)s
inclined, prone, *qoh
inclusive person pronominal root, *p'e-
indefinite duration auxiliary, *bey
indent, *bit
indistinct color ?, *qaq
inhale, *su(•)t
insect sp. (buzzing), *homo--
insert long things, poke, stick into, ${ }^{*} \lambda$ ' op
intense visual perception, *k'al
intensive verb-derivational suffix, *-h
intentional future, going to, *-le
intestines, guts, *pot

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irrealis stem-deriving suffix, imperative, *-u
itch, scratch, *?od-i/u-
iterative, *-V·y
jackrabbit, *k'el
jaw, chin, *q'aba
join, perimeter, *kol
joined, added on to perimeter, *kol-i
joined, pronged, *non
jump, *puč-
juniper, *mon
keep, *boh
kick, *č'on
kill, * \lambda'o\cdotm-u
killdeer, *tiwi·t
kingfisher, *t'arara ?
kingsnake, *handop-
kinterm absolutive suffix, *-(·)n
kinterm locative case, *-t-in ?
kinterm plural (or human plural), *-ba
kinterm prefix, *n(i)-
knee, *?anaq
knife, arrow, flint, obsidian, *doqo
knot (tie a), *p'olo·q
know, *t'i-
lack of color, *tal
larynx, *q}\mp@subsup{}{}{\mathrm{ h}
last, yester-, *le-n
late, *?olhen
leaf, *dala
lean against, *t'oq-čh}-\textrm{i}/\textrm{u
lean meat?, *čhi
leave, *yal-i/u
leaves, foliage, *sala
left, left hand, *t'aw
leg, *yir?
legs apart, *kan?
lest, might, may, *-k}\mp@subsup{}{}{\mathrm{ h}
let, hortative, *-di
let's, *-e-
lick, *nal
lie, be, *bey
lie prone, *xoy
lie, tell a lie, *bal-?a
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light, *say-i/u, *tek
light (source ?), *sa-
light a fire, *č'ay-a
light in weight, *hosop
lightning, flame, *wal-u
liquid spreads, *t'hel-a-
liquid (thick), *t'ot
liver, *k'hila
lizard sp.: Western fence lizard, *č'iwil
locative, toward, in (horizontally ?), *-e·l
locative case, *-in
log, *waqu·?
long ago, already, old, former, past demonstrative, *ho-
loose, *hoł ?
loose, thin, *łupuq
loosen by scratching, *k'eb-i/u
lose, miss, *yo(`)w
louse, *p
lungs, *q}\mp@subsup{q}{}{\mathrm{ hoso}
lungs, chest, *k'eba
magpie, *?at?at
make, *lel-a/i/u, *mal-i/u
make sparks, *t'ip
man, *wi-ta
man, husband, *wiy
manzanita berries, *bolo
maple, *say
mash, *p}\mp@subsup{}{}{\mathrm{ hit}
may it be, *wile
may, might, lest, *-k}\mp@subsup{}{}{\textrm{h}
meadowlark, *yok
mediopassive, *-čch
meet, *hen-pa ?
mental clouding, *q'a(`)q
mesh, *k'at?
middle, center, *wenem
might, may, lest, *-k
milk, breast, *?imit
milkweed, *boq
milkweed, wild hemp, *p}\mp@subsup{}{}{\textrm{h}}e\cdot
minnow, *q}\mp@subsup{}{\mathrm{ hili}}{
miss, *man-a
miss, lose, *yo(`)w
moldy, muddy, *q'un
mollusk shell, *łono(`)q
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morning star, *č' ${ }^{\prime}$ at-u
mortar, *t'ubuq?
mortar basket, *kaw
mosquito, *čosaq
mother, *neh, *na, *ne--n
motion back and forth, *her-u
mountain, *čhoł
mountain lion, *pate
mountain quail, *čh olčhol
mourning dove, *puluq
mouse, rat, *č'ube
mouth, *qo(•)1
mouth open, *waw
move, *moroq
move away, *yo•
move (fast ? repetitive ?), *k ${ }^{\text {hod }}$ -
move in a direction, move toward, *k'o-
move inclined toward, *k'od-i/u
move hips ?, *wik
move light-weight things, *sid
move stones, *k'ap
mud, *k'a.
muddy, moldy, *q'un
mushroom sp., *t'ara, *made ?
mussel, fresh-water, *č'ayi
nail(s), claw(s), *k'ahay
name, real, really, *yet
nape of neck ?, *toq?
narrow-waisted, *č'idok
navel, *naq
near, *čok-i
neck, *dok
nest, *sunu
net, *koro, *čh aq, *t'uy-čh - i
new, now, *po-
nipple, *p'ur-i
nit, *č'ubi
no, not, *Relew
nod, *wuk
nominalizer, *-s
nominalizing and neutral mode stem-deriving suffix, *-i
non-visual sensorial evidential, *mut-her
north, *way
nose, *sono
not, no, *?ele-w

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nothing (be), *min-a
now, new, *po·
objective case, *-ma
objective case suffix for kinterms and pronouns, *-t
obsidian, knife, arrow, flint, *doqo
old, already, long ago, former, past demonstrative, *ho-
old man, *k'iy
old woman, *p'ot
older brother, *labe-
older woman, *q'aya
one, *k'ete·t
open by scratching or scraping, *xeb
open mouth, * waw
optative ?, deictic, *k}\mp@subsup{}{}{\textrm{h}
oriole, *sapasapa
oscillate, vibrate, *lew
other, away, different, *q}\mp@subsup{q}{}{\mathrm{ hal}
other ?, *?ut
out(side), *pat
owl sp.: great horned, *kudu
owl sp.: barn owl, *si`k
owl sp.: burrowing, *wik
owl sp., *hi-n
own, have, get, *ke-
pack, *sew
pack tight, *bam
paddle, *q}\mp@subsup{}{}{\textrm{h}}\mathrm{ awa ?
paired objects, suffix marking, *-ma
pale, *sa·l
palm, *t'eqel
pant, grunt, *x̣oh
parch, *ła\cdotr
passive, *-her
past demonstrative, old, already, long ago, former, *ho-
pay, *?eł
peel off, *č'ub
pendant, *yaw
penis, *kul-
people, *win
people, person, *-tu(`)
people of, village, *xerel
peppergrass, *yodo ?
perforate, *q}\mp@subsup{q}{}{\mathrm{ h}
perimeter, join, *kol
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person, *win
person, people, *-tu(`)
pestle, *thulu ?
pestle?, wood ?, *č'us
pet, *?om
physical injury, *p'od
pick one at a time, *tey
pick small things one by one, *xad
pick up ?, dig ?, *hap-a
pierce through, * }\lambda\mathrm{ 'er
pigeon: band-tailed, *xo-...wi-
pike, *k'uw-
pinch, *t'or
pine, *t'uw
pine sp., *sak
pitch, resin, *čhek-i
place a sling, *lom-u
plant sp., *łaqa, *q}\mp@subsup{}{}{\mathrm{ h}
plant sp.: low-growing, *baq
plant sp.: soft, round, *łubuq
play, *łaqal
point, *lolo }\cdot\textrm{q}-\textrm{i}/\textrm{u
poison, doctor, *yom
poison oak, *p'oq'om
poke, stick into, insert long things, * }\lambda\mathrm{ 'op
pole, *to-
polish, *sik
pond, *kopol
poorwill, *qo·ltep
pop, *p'oq ?
poppy, butterfly, *bo·lbolVq
porcupine, star, *łara\cdotq ?
potato, *?el-i
potato sp., *p'ołoy
pound, *t'aq-i/u, *p'aq
pound with flat surface, *phet
pour, spill, *č'u·l-i/u
pour out slowly, go out, *p'e'1?
pour solids, *t'ik-i/u
press, *p}\mp@subsup{}{}{\mathrm{ h}
press tight, *č'it
promise ? beg ?, *duq
prone, inclined, *qoh
pronged, joined, *non
pronominal plural, *-le
protruberance, * }\lambda\mathrm{ 'or-
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protrude, swell, ${ }^{*}{ }^{\text {h }}{ }^{\circ}$ -
protrusion, *bul
pubic hair, *seke-
pull, *wik, *qir
pull off, *sob-č̌ ${ }^{\text {h }}$-u-
pull or throw up, *kip
pull out, *thup-u?
pus, full of pus, *buq
put long object around, *dol
put on a hat, *thak
put up, *łom-i/u
quotative root, *?u
raccoon, *čh ${ }^{\text {hika }}$
rainbow, *sa•q-k'ur- ?
raise, *hok
rake (toward self ?), *qar-č ${ }^{\text {h}}-$
rat, mouse, *č'ube
rattle, * $\lambda$ 'ał
rattle (cocoon), *sokok
rattle (rustle ?), *wasasa
raven, *qaq
real, really, name, *yet
realis stem-deriving suffix, *-a, *-e
reciprocal, *p'ur-i
red, *tede
red paint, *q'oba
red-shafted yellowhammer (flicker), *č'i-
referential, *qa
reflect, *?il?il
reflexive, *-na
relational nominal suffix, *-da
relational locative, *naq
relatives, *win
reluctant ?, careful ?, *hinu•-
remain, *hor-i/u
remove from body, $* \lambda$ 'uq
resin, pitch, *čhek-i
ribs, *k'uril
ridge, *luyuq
right hand, *čal-
ringing sound, *tiltil
rip, *čel-
rip in half, *yeb
ripe, ${ }^{*}$ noq- $\mathrm{i} / \mathrm{u}$

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roadrunner, *tolto- ?
roar, rumble, *kim-u•r
roast, * \(\lambda\) 'ir
robe, * naw
robin, *wisbo-?
rock, *son
rock (small, round), stone, *t'uduy
rodent sp., *k'ay
roe, *pu•p
roll, *dir, *dibił, *hol ?
roll, run continuously, *kip(-Vl)
root, especially basket root, *se•k
rope, *č'e•k
rot, *yulyul
rotten smell, stink, *łal-a
rough skin, *č' \(\mathrm{i} \cdot \mathrm{k}\)
rub, \({ }^{*}\) lir, \({ }^{*}\) dih ?
rumble, roar, *kim-u•r
run continuously, roll, *kip(-V1)
rustle ?, rattle, *wasasa
sack, * \({ }^{\text {ham }}\)
salmon, *nur
salt, *we( \(\cdot\) )f
sand, *č'er-i, *thapa
save, *huy
save for, *laq
scare someone, *čiri•k-u-ma
scorpion, *taqa taqa
scrabble, *los
scrape, *k'ar-a, *q'er
scrape, scratch, *č'eb-a•
scratch, *k'or
scratch, scrape, *č' eb-a•
scratch body, itch, *?od-i/u
screech owl, *k'opus
scrub jay, *č'ayi(•)k
seal (close), *t'uy
search for, *tiw
second person pronominal root, *ma-
see, *win
seed, *k'ul, *moy
seed plant sp., *k'is, *q'oł ?, *payi•ł
seek luck, *q \({ }^{\text {hos-u }}\)
seep out, *p'ur-u
send, *yi \(1-\mathrm{l}\) a
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send after, direct to, *yor
sensory input decreasing ?, * \'ik
separate into strands or slices, *k'ih
sew, *hur-u
shadow, spirit after leaving body, *łes
shake, *kepkep
shake, wake up, *yuq-čc
shame, *kay-i/u
sharp (to be), *t'op
sharp implement, *k'ir
sharp point; to sprout, *č'up
sharpen by filing, grind, *lor
shave, *q}\mp@subsup{}{}{\mathrm{ her}
shell (empty?), * }\lambda\mathrm{ 'al
shell (verb), *k'ab
shell of mollusk, *łono(*)q
shelled and dried acorns, * }\lambda\mathrm{ 'ił-
shimmer, *?ib
shin, *lur
shine, *til
shoe, *t'amu
short version of, *molo
shoulder, arm, *sala
shrub sp., *sow
sick, hurt, want, *koy-i/u
side, *sel
sift, *č'iq
sinew, tendon, *law
single thing or individual emerges, *thuq
sister, *lay
sit, *ła
sit, be, *boh
six, *ser-panoł
skin, *la·s, *qoq
skin (verb), *p'ir-čh}-\textrm{u
skin peels off, *č'ob
skull, *qoq- ?
skunk (striped), *q}\mp@subsup{}{}{\textrm{h}
skunkberries, sumac berries, *p}\mp@subsup{}{}{\textrm{h}}\mathrm{ intus
slap, *t'aq
sleep, *xin-a
slice, *t'eč-a
slice, cut with swinging motion, *hil
slice, cut off, *q'op-u
slide, *suy-u
sling, *lom-u
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sling (tie a), *łar-č ${ }^{\text {h }}-\mathrm{u}$
slip, *sil
slit/split two halves, *t'ač
slithering (creature), crawling (like a snake), * ${ }^{\text {h }}$ il- i
slurp, *łupu•q-i/u
small, child, *ku-
small, child, baby, *?ilay
small (intensive ?), *? in
smell, *sub-u
smell rotten, stink, *łal-a
smoke, *nu•q
smoke (verb), *sud-u
smoke hole, ${ }^{*}$ t'el
smooth, *wil-i
snake (verb), *how
snake sp., *how, *hulilVk
snap, *k'a-
sneeze, *t'es
snore, *łon
snot, *iniq
snow, *yo•l
soft round plant sp., *łubuq
sound bee-like, *łon
sour, *?ay-...1-
sour, unripe, *7a•w-a
south, *nor
spark, *p'ač-a, *t'ip
sparrowhawk, *?i•r?ir
spear, *saq
spear, gig, *łew ?
speech, *č'e(•)we-s
spider, * ${ }^{\text {h }}$ erek
spike, *tob-i
spill, pour, *č'u•1-i/u
spin, *xiw
spirit, * ${ }^{\text {hal }}$-tu?
spirit after leaving body, shadow, *łes
spit, *thub
split, *k'ał
split apart, *t'eb
split/slit two halves, *t'ač
split, *q'ot
spot, *t'ok
spouse's parent, child's spouse, in-law one generation removed, *t'e(•)s
spread open, *dih
spread to dry, *ye-
sprout, * ${ }^{\text {h}}$ uy?
sprout, to; sharp point, *č'up
sprout, emerge, cross (meet), *tep-i/u
squat, * ${ }^{\text {h}}$ ud
squeak, *k'id
squeeze, *pit, *p'it
squint, *?ay-č̌ ${ }^{\text {h }}$ -
squirm, *sis
squirrel: flying ?, *q’an-łala ?
stand, ${ }^{\text {p }}{ }^{\text {hek }} \mathrm{e}-\mathrm{y} \cdot \mathrm{y} \mathrm{i} / \mathrm{u}$ ?
stand up long things, *toq
star, porcupine, *łara $\cdot q$ ?
starve, be hungry, *per-i/u
stative ?, ${ }^{*}-\mathrm{V}(\cdot) 1$
steam, fog, ${ }^{*} q^{\text {h }}$ os
Steller's jay, *woč-
step, climb, *dek
stick into, poke, insert long things, ${ }^{*} \lambda$ ' op
stick into (vertically ?), *lup
stick up, *to•1
sticks, *tok-i?
stiff?, clench, *k'on
stiff, straighten, ${ }^{*}$ sip-čh $-u$
sting, *lal-a
stink, smell rotten, *łal-a
stinkbug, *xed-i-men
stone, small round rock, *t'uduy
stone (white), $* \lambda$ 'ar
stoop, *pum,
straight, *č'uC-, *kid-i ?
straighten, make stiff, *sip-čh $-u$
straighten up, fix up, *moq
strap with hook, hooked strap, *lak-o/u
strap, tumpline, *surut
strike at, $* \lambda$ 'aq-a
stripe, ${ }^{\text {q }}{ }^{\text {h }}$ op
striped skunk, ${ }^{*}{ }^{\text {h}}{ }^{\text {o }}$.
struggle, *wer
stuck, *č ${ }^{\text {h }}$ op
stuff feathers, *wey
sturgeon, *nes
subjunctive, dubitative, *-m
submerge, ${ }^{*}$ lib-č ${ }^{\text {h }}$
subordinating suffix, *-ta
subordinating suffix of causal or temporal anteriority, *-ro ?
suck, *č'uy-u
sudden escape of water, *het
suffix forming alienable possessive pronouns, *-o
sugar, *xurxur
sugar pine, *sumu
sumac berries, skunkberries, ${ }^{*} \mathrm{p}^{\text {h intus }}$
summer, *pohpil ?
summoned gathering, *ya•pay
sun to set, *?ał-a
sunflower sp., *q ${ }^{\text {holo }}$
sunshine, *holol
supernatural, *yoh
suspect, fear a loss, *ha $\cdot \mathrm{q}-\mathrm{a}$
Swainson's hawk ?, *lik-
swallow, *per-i/u
sweet, *munuq
swell, protrude, ${ }^{*}{ }^{\text {h}}{ }^{\text {o}}$
swim, *thul-e/i/u
swing, *xiw
swing arms, *hil-a•y
tadpole, *ho-...-q
tail, *sutu
take/bring something inanimate, *har-m-
tale, tell a tale, *bo•l-e
talk, *č'e(•)w
tall and swaying, *k'eb
tamarack pine, *mo•r
tarweed, *t'on
tear, *k'ur-a•
tears, *tum
tell a lie, *bal-?a
tell a tale, *bo•l-e
tend in indicated direction, * ${ }^{\prime}$ 'er?
tendon, sinew, *law
thick liquid, *t'ot
thighs, hip, *somVk
thin, loose, *łupuq
thing, *soq, *men
think, *hal
thorn, ${ }^{*}{ }^{\mathrm{h}} \mathrm{i} \cdot 1$
three, ${ }^{*}$ pano( $\left.\cdot\right)^{1}$
throat, *dol, *holhol
throat, esophagus, *peru•
through to the last, *nam
throw, *łey-a
throw or pull up, *kip

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throw solids, \({ }^{*} q^{\text {h }}\) et-a
throw water, *łid
throw water on fire, *qol
thus, *?u-
tickle, *quč-u
tie, *lak
tie a knot, \({ }^{*}\) p'olo•q
tie a sling, *łar-č̌ \({ }^{\text {h }}\)-u
tired, *leq-č̌ \({ }^{\text {h}}-u\)
toad, *yoho(•)1
tobacco, *lo(•)1
today, *po-sani
tongue, *tahal
tooth, *si-
top, *pan-ti
toward self, here, *xun
toward, in (horizontally?), *-e•l
trail, *yeme
trap (verb), *q’ap-ma
trapped, *q'ap-a
travel, far, *kel-
tree, \({ }^{*}{ }^{\text {cho }}{ }^{\mathrm{o}} \mathrm{q},{ }^{*}\) mi
trip, \({ }^{{ }^{\text {h }}{ }^{\text {et }} \text {, }}\)
try, *tip
tule (flat), cattail, *pa•tpat
tule, bulrush, \({ }^{*} \lambda\) ' op
tumpline, strap, *surut
turn into nothing, *min-a
turn, roll, *dibił
turtle, *?an-
turtle-shell shaped, *mu(•)k-u
twice, crosswise, *ser
twins, *čh ur-
twist, *t'ir
two, *pan
unpleasant emotion, crazy, \({ }^{*}\) ho•n
unripe, sour, *?a•w-a
up, *?ol
up-and-down movement, *hak-i
urine, urinate, *č'u•n-u
use, do, be (non-distal ?), *?iy
venison, deer, *no p
vibrate, oscillate, *lew
village, people of, *xerel
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vine sp., *č'ini•q
viscous, *p'at
vision impaired, * ${ }^{\text {has }}$ as- $\cdot 1-\mathrm{Pa}$
vocative, *ye
vocative suffix, ${ }^{*}-\mathrm{k}$
vomit, *?oq-čh $-\mathrm{i} / \mathrm{u}$
vulva, *č'ut
wade, *č'up-u
walk, *q'ay-i/u
walk uncertainly, *čoł-
want, hurt, sick, *koy-i/u
warm oneself, *humuq
wash face, wash up, *t $\mathrm{t} a \cdot \mathrm{p}$
water, *me(•)m
water container, *pol
watersnake ?, *how
wave, fan, gesture, *liw
wear out, exhaust, *łet
weave, *łel-e
weave, make a net, *ło(•)y
web, weaving, *łoy
weir, dam, *paq-i
west, *nom
Western bluebird, *č'ow
Western fence lizard, *č'iwil
Western meadowlark, *bi•t?
wet, * ${ }^{\text {h }}$ at
where, *he
which specific one, *he
whiskers (particularly of fish), beard, * ${ }^{\text {hep }}$ p
whisper, *hal-a
white stone, $* \lambda$ 'ar
white oak acorn, *yok...1-
whole, body, ${ }^{*} \mathrm{t}^{\mathrm{h}} \mathrm{u}(\cdot) \mathrm{n}$
wide, *q'an
wide (open ?), *wak
wife, woman, *p'oq
wild goose sp., *laq
wild grapes, * ${ }^{\text {h}}$ ap
wild onion, *p'u(•)r
wildcat, *p'a...l...m
willow sp., *moł
willow sp. or basket sticks from that willow, *ton
wind, wind blows, *k'ah-i/u
wing, *q'an
wink, *?ay-č ${ }^{\text {h }}$ -
winnower, *k'en-i
winter, *pomsim
wolf, *hu- ?
woman, *p'oqi-ta
woman, wife, *p'oq
woman (old), *p'ot
woman (older), *q'aya
wood ?, pestle ?, *č'us
woodpecker sp., *čh uday, *tarak, *č’uduk
worm, * $\lambda$ 'uk, *k'es
worm sp., *q'učul
wormwood, *qeti
wrap, *pil-u
wrap around, *haw-a•l
wreck, *p ${ }^{\text {hor }}$
yawn, *ha•sme
yellowjacket, *k'eč-
yes, *ho(•) ?
yester-, the passing of one night ?, *le•n
young boy, *k'urey
young girl, *p'ukuy
young man, *xerit
younger brother, *ley

## REFERENCES

## Abbreviations

AA, American Anthropologist
AL, Anthropological Linguistics
IJAL, International Journal of American Linguistics
IJAL-NATS, IJAL Native American Texts Series
JAF, Journal of American Folklore
SSILA, The Society for the Study of the Indigenous Languages of the Americas
UCPL, University of California Publications in Linguistics UCPAAE, University of California Publications in American Archaeology and Ethnology

Aoki, Haruo
1994 Nez Perce Dictionary. UCPL 122.
Arroyo de la Cuesta, Fray Felipe
1821 Southern Wintun (Suisun) vocabulary. Manuscript, Bancroft
Library, University of California, Berkeley

Barker, M.A.R.
1963 Klamath Dictionary. UCPL 31.

Barrett, S.A.
1908 The Ethno-Geography of the Pomo and Neighboring Indians. UCPAAE 6(1).

1919 The Wintun Hesi Ceremony. UCPAAE 14.4: 437-488.
Berman, Howard
1983 Some California Penutian morphological elements. IJAL 49:400412.

1996 The position of Molala in Plateau Penutian. IJAL 62:1-30.
2001 Notes on Comparative Penutian. IJAL 67(3): 346-349.
2002 Merriam's Palewyami Vocabulary. IJAL 68(4): 428-446.
Blankenship, Bernice and Pat Wenger
1978 Learning to Talk Nomlaki. Round Valley Reservation, CA. The Covelo Indian Community Council.

Boas, Franz
1911 Chinook. Handbook of American Indian Languages, Part I, pp. 559677. Smithsonian Institution: Bureau of American Ethnology, Bulletin 40. Reprinted in: Anthropological Publications, Oosterhaut, N.B., The Netherlands, 1969.

Bright, William
1957 The Karok Language. UCPL 13.
Bright, Elizabeth
1951-2 Unpublished Patwin field notes. Survey of California and Other Indian Languages, University of California, Berkeley, Department of Linguistics.

Bright, Elizabeth and Donald Ultan
1970 Computer printout of Patwin lexical items collected in the field by Bright and Ultan. Manuscript in possession of author.

Broadbent, Sylvia and Harvey Pitkin
1964 A Comparison of the Miwok and Wintun Families. UCPL 34:19-48
Brown, Cecil H.
1990 Problems in Distant Genetic Comparison: The Case of Mayan/Wintu. Manuscript in possession of author.

Buckley, Eugene
1988 Reconstructing the Sounds of Alsea. Papers from the 1988 HokanPenutian Workshop held at the University of Oregon, Eugene, June 16-18. Compiled by Scott DeLancey, pp. 9-30. University of Oregon Papers in Linguistics, Publications of the Center for Amerindian Linguistics and Ethnography 1. Eugene: University of Oregon.

Callaghan, Catherine A.
1965 Lake Miwok Dictionary. UCPL 39.
1970 Bodega Miwok Dictionary. UCPL 60.
1984 Plains Miwok Dictionary. UCPL 105.
1987 Northern Sierra Miwok Dictionary. UCPL 110.
2001 More Evidence for Yok-Utian: A Reanalysis of the Dixon and Kroeber Sets. IJAL 67.3:313-345.

2003 Proto-Utian (Miwok-Costanoan) Case System. IJAL 69(1): 49-75.
Curtin, Jeremiah
1898 Creation Myths of Primitive America. Boston: Little, Brown and Company.

Curtis, Edward S.
1924 The North American Indian, ed. by F.W. Hodge. Vol. 14. Johnson Reprint Company, New York. The Wintun, pp. 73-96, pp. 189-192. Wordlists, pp.220-229.

DeLancey, Scott
1987 Klamath and Wintu Pronouns. IJAL 53.4:461-464.
Demetracopoulou [Lee], Dorothy and Cora Du Bois
1932 A Study of Wintu Mythology. JAF XLV, pp. 375-500.
Dixon, Roland B. and A.L. Kroeber
1907 Numeral Systems in the Languages of California. AA, n.s., 9.4.
Du Bois, Cora
1935 Wintu Ethnography. UCPAAE 36.1
Du Bois, Cora and Dorothy Demetracopoulou [Lee]
1931 Wintu Myths. UCPAAE 28.5.

Frachtenberg, Leo J.
1913 Coos Texts. Columbia University Contributions to Anthropology, ed. by Franz Boas. New York: Columbia University Press.

Gerolt, Friedrick Karl Joseph, Freiherr von
1830 Idioma Uimen, Idioma Suisun, Lengua Cacundo. Manuscript, Archiv Schloss Tegel, "Wilhelm von Humboldt, Wissenschaftliche Korrespondenz," Inv.-Nr. 1061, Bl. 50-55.

Goldschmidt, U.
1951 Nomlaki Ethnography. UCPAAE 42: 303-443.
Golla, Victor
1976 Tututni (Oregon Athapaskan). IJAL 42(3): 217-227.
1996 Some California Indian Vocabularies in Wilhelm von Humboldt's Collection. Paper presented at the 35th Conference on American Indian Languages (part of the Annual Meeting of the American Anthropological Association), San Francisco, Nov. 20-23, 1996.

1997 The Alsea-Wintuan Connection. IJAL 63(1): 157-170.
1998 The Earliest Recording of Pacific Coast Athabaskan. SSILA Newsletter XVII:1, April 1998.

Hale, Horatio
1846 Ethnography and Philology. Vol. 6 of the United States Exploring Expedition of 1838-1842, by Charles Wilkes. Philadelphia: C. Sherman. Page 630: "a few words of the language spoken by the Indians of that river [Sacramento], ab out two hundred and fifty miles above its mouth. The name of the tribe was not ascertained." (Nomlaki)

Hess, Thom
1976 Dictionary of Puget Salish. Seattle: University of Washington Press.
Heizer, Robert F.
1973 Notes on the McCloud River Wintu and Selected Excerpts from Alexander S. Taylor's Indianology of California. Archaeological Research Facility, Dept. of Anthropology, UC Berkeley.

Hewson, John
1993 A Computer-Generated Dictionary of Proto-Algonkian. Canadian Ethnology Service, Mercury Series Paper 125, Canadian Museum of Civilization, Hull, Quebec.

Hill, Dorothy
1971 Tapes in Dorothy Hill's possession of Joe Freeman, a Nomlaki from Paskenta, transcribed by Kenneth Whistler 1976. Manuscript, Survey of California and Other Indian Languages.

Jespersen, Otto
1946 Mankind, Nation and Individual from a Linguistic Point of View. Indiana University Press, First Midland Book Edition 1964.

Johnson, Adam
See Schoolcraft 1860
Kroeber, A.L.
1925 Handbook of the Indians of California. Bulletin 78, Bureau of American Ethnology, Smithsonian Institution; Washington, D.C. Government Printing Office. Reprinted 1976, New York: Dover Publications.

1932 The Patwin and Their Neighbors. UCPAAE 29.4:253-423.
LaPena, Frank
1978 Wintu. Handbook of North American Indians, William Sturtevant, general editor; Volume 8: 324-340.

McLendon, Sally
1973 Proto-Pomo. UCPL 71.
Merriam, C. Hart
1903-1931 Wintun Field Notes. C. Hart Merriam Collection, Bancroft Library, University of California, Berkeley.

1903-1936 Patwin fieldnotes. C.Hart Merriam Collection, Bancroft Library, University of California, Berkeley.

1906, 1917 South Patwin vocabulary schedule. Bancroft Library, University of California, Berkeley.

Miller, Wick R.
1967 Uto-Aztecan Cognate Sets. University of California Publications in Linguistics, Volume 48. University of California Press.

Nichols, Michael J.P.
1981 Old California Uto-Aztecan. Report \#1 from the Survey of California and Other Indian Languages, pp. 5-41. University of California, Berkeley, Department of Linguistics.

Olmsted, David L.
1964 A History of Palaihnihan Phonology. UCPL 35.
1966 Achumawi Dictionary. UCPL 45.
Pitkin, Harvey
1963 Wintu Grammar. Unpublished Ph.D. dissertation, University of California, Berkeley (later revised and published as Pitkin 1984).

1984 Wintu Grammar. UCPL 94.
1985 Wintu Dictionary. UCPL 95.
Pitkin, Harvey and William Shipley
1958 Comparative Survey of California Penutian. IJAL 24.3: 174-188.
Powers, Stephen
1877 Tribes of California. CNAE 3:439-613. Washington, D.C.
Robins, R.H.
1958 The Yurok Language. UCPL 15.
Sapir, Edward
1912 The Takelma Language of Southwestern Oregon. Handbook of American Indian Languages, Bureau of American Ethnology Bulletin 40.2.1-296. Reprinted in The Collected Works of Edward Sapir, VIII. Mouton de Gruyter, 1990.

1914 Notes on Chasta Costa Phonology and Morphology. University of Pennsylvia: The University Museum Anthropological Publications, Vol. II, No. 2. Philadelphia: University Museum.

Sapir, Edward and Morris Swadesh
1960 Yana Dictionary, edited by Mary R. Haas. UCPL 22.
Sawyer, Jesse O.
1975 Nomlaki word list collected from Sylvester Simmons, 1/7/75. Manuscript in author's possession.

Schoolcraft, Henry R.
1960 Archives of Aboriginal Knowledge. 6 vols., Philadelphia. Vocabulary of the portion of Indians residing near to Mag Reading's, on the upper waters of the Sacramento River, by Adam Johnson, Vol. 4, pp. 414-415.

Shafer, Robert
1961 Tones in Wintun. AL 3.6:17-30.
Shipley, William F.
1963 Maidu Texts and Dictionary. UCPL 33.
Swadesh, Morris
Ca. 1950 Wintunian word-lists, 200 word diagnostic list (Wintu, Nomlaki, Patwin).

Uldall, Hans J. and William Shipley
1966 Nisenan Texts and Dictionary. UCPL 46.
Washington, F.B.
1909 Notes on the Northern Wintun Indians. JAF 22:92-95.
Whistler, Kenneth W.
1975-79 Patwin field notes. Material collected from Oscar McDaniel (Kabalmem/Lodoga Hill Patwin), Harry Lorenzo (Cache Creek/Rumsey Hill Patwin) and Jennie Regalado (Colusa River Patwin). Survey of California and Other Indian Languages, University of California, Berkeley, Dept. of Linguistics.

1976a Nomlaki word list elicited from Joe Freeman in Los Molinos, CA. Manuscript in author's possession.

1976b Transcription of tapes in Dorothy Hill's possession of Joe Freeman, a Nomlaki from Paskenta. Manuscript in author's possession.

1976c Nomlaki field notes. Material collected from Joe Freeman (Paskenta Hill Nomlaki). Survey of California and Other Indian Languages, University of California, Berkeley, Dept. of Linguistics.

1976 d Proto-Wintun and the Place of Wintun in Penutian. Cleaned-up version of in-progress draft as presented at the American Anthropological Association meeting, Washington, D.C. Nov. 20, 1976. Manuscript.

1976e Patwin Folk-taxonomic Structures. UC Berkeley, Department of Linguistics, unpublished M.A. thesis.

1977a Wintun Prehistory: An Interpretation Based on Plant and Animal Nomenclature. In: Proceedings of the Third Annual Meeting of the Berkeley Linguistics Society, pp. 157-174. Berkeley: Berkeley Linguistics Society.

1977b Bear and Deer Children. In: Northern California Texts, ed. by Victor Golla and Shirley Silver. IJAL-NATS 2.2:158-178.

1978 Mink, Bullethawk, and Coyote. In: Coyote Stories, ed. by William Bright. IJAL-NATS Monograph 1: 51-61.

1980 Proto-Wintun Kin Classification: A Case Study in Reconstruction of a Complex Semantic System. Ph.D. Dissertation, University of California, Berkeley, Dept. of Linguistics.

1981 Ablaut in Hill Patwin. Reports from the Survey of California and Other Indian Languages, 1:42-94.

1986 Evidentials in Patwin. Evidentiality: The Linguistic Coding of Epistemology, ed. by Wallace Chafe and Johanna Nichols, pp. 6074. Ablex Publishing Corporation


[^0]:    *-da, first person subject (verbal suffix) (424.1); cf. *-da, relational nominal suffix;
    *-di, let, hortative
    W -da, first person subject marker (verbal suffix)
    N-W ?elewda t'ipnada, I'm not talking Indian. I don't understand. BW da, I
    PCC -le(da), I'll ...; -bu(da), let's all ... (first person inclusive); K -leda, I'll

[^1]:    *-r, genitive case (531.33)
    W -r, marks singular pronouns as agents of passive verbs; also marks third person singular pronouns as inalienable possessors

