Wintu grammar

By

Harvey Pitkin

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DISSERTATION

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Approved:

C. Douglas Chrétien

David W. Reed

Committee in Charge

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Table of Symbols

[ ]	allophones are enclosed in square brackets
/ /	phonemes and phonemic sequences are enclosed in slashes
V	vowel
C	consonant
s	light syllable
S	heavy syllable
S̲	extra heavy syllable
‖ ‖	morphophonemic cover symbols (summarizing pervasive and phonologically conditioned variation in phonemic shapes as defined in Chapter III, Morphophonemics), i.e. morphophonemes and morphophonemic sequences are enclosed in parallel bars
{ }	morphemes are designated by their basic allomorphs enclosed in braces
‖V‖ or {V}	a short vowel of the same quality as the preceding vowel
:	a colon is used formulaically, as in {...} : ‖ ‖ : / / to indicate phonological shapes of morphemes or morphophonemes
*	an asterisk marks a hypothetical or reconstructed form

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INTRODUCTION

Wintu is a nearly extinct language spoken in northern California in Shasta and Trinity Counties. It is a member of a family of three languages established by the Powell classification of 1877 and designated the Copehan family. In the recent literature this family has been called Wintun, but has also been known as Copeh (Latham 1856), Wintoon (Gatschet 1877), Wintun (Dixon and Kroeber 1913), Wintuan (Swadesh 1956). The northernmost language of this family, here referred to as Wintu, has also been referred to as Northern Wintun (Kroeber), Wintu·ʻ (Lee), Wintuic (Lamb), and Wintun (Curtin), as well as by the names for some of the dialects: McCloud River, Trinity County, Shasta County, Upper Sacramento, Baldhill, Hayfork, Keswick, Stillwater, and French Gulch. This language was specifically called Digger by Gatschet in 1876; although the term has been applied to very many California Indian groups, Gatschet referred to a group of Indians in Colorado who were Wintu or some mixture of Wintun.

Wintu is closely related to Nomlaki and less closely to Patwin, the other members of the Wintun family. Wintun in turn is one of the California Penutian languages, clearly though distantly related to the Yokuts, Miwok, Maidu, and Costanoan families.

Previous linguistic research on Wintu (except for some unpublished word lists) has been carried on by Dorothy Demetracopoulou Lee (unpublished) and Roland B. Dixon (1909). See the accompanying bibliography for (a) synchronic linguistic descriptions and word-lists, (b) comparative and historical linguistic materials and classifications, and (c) ethnological and archaeological materials.

The Wintu language survives in only the McCloud River and Trinity County dialects. The former is still spoken by about two dozen people and the latter by only a handful of older persons. My principal informants were all speakers of the McCloud River dialect. The basic field work occupied the summers of 1956 and 1957, with additional shorter periods for checking forms during 1958 and 1959. My three principal informants

were, in the order of their importance:

Carrie B. Dixon of Redding, seventy years old, granddaughter of the last McCloud Chief (Qolculu·li).

Ellen Silverthorn of the Clear Creek Rancheria south of Redding, over eighty years old, a former shaman-interpreter, monolingual.

Joe Charles of Buckeye north of Redding, over eighty years old, a former shaman.

Other informants consulted were:

Flora Jones of Buckeye, herbalist-shaman, niece of Joe Charles.

Renee Coleman of Redding.

Nels Sisson, shaman, Ellen Silverthorn's brother, deceased 1957.

Lizzie Feder of Lakehead, over seventy years old.

Walter Loomis of Weaverville, over seventy-five years old, Trinity dialect.

Grace Nolton McKibbon of Hayfork, over seventy years old, Trinity dialect.

Lizzie Cortez of Redding.

Bill Reed of Project City.

Johnny Stacey, over eighty years old.

Edna Button-Benner-Raines-Fan, over seventy years old.

Mary Major, about 100 years old, of Covelo.

My field work was generously supported by the Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley. In 1958-1959 I had an additional grant from the Wenner-Gren Foundation to support a dialect survey and an investigation of related languages. Of the many people who have contributed to the preparation of this work, foremost is Professor Mary R. Haas, who has guided and encouraged me from the beginning and whose patient and unflagging support has made this grammar possible. My thanks also go to Professor Murray B. Emeneau for reading and commenting on a draft of this grammar, and for his kind and warm encouragement. Thanks are also due Professors David Reed and Douglas C. Chrétien for their patience and kindness in reading and commenting on a draft of this grammar.

Without the unpublished texts and field notes so generously loaned by Professor Dorothy Demetracopoulou Lee, this description of Wintu would have been far less extensive. The texts in particular made it possible to re-elicit oral literature which for the most part has disappeared in the last thirty years. The Lee materials have added two dimensions to this description. A

quarter century time span is encompassed making it possible to describe features which are now exceedingly difficult if not impossible to collect, while a variety of ideolects and styles have thus been included, broadening the synchronic scope.

My very special thanks are due Carrie B. Dixon, a superb informant and teacher, who worked unstintingly and generously to place the Wintu language before me.

Wintu Bibliography

The following bibliography includes general references, synchronic linguistic descriptions and word lists, comparative and historical linguistic materials and classifications, and ethnological and archeological materials. Two abbreviations are employed: an asterisk refers to unpublished manuscripts; SCILA refers to the Survey of California Indian Languages Archives, Department of Linguistics, University of California, Berkeley, California.

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Chapter I

Summary of Structure

I. Phonology. Words are only composed of the syllables CV, CV·, CVC, and CV·C in canonical shape. The words generally range from monosyllabic to quadrisyllabic with some rare forms which are slightly longer.

Wintu words are phonologically marked by a word juncture /+/, which comprehends a contour. Primary stress, usually on the first syllable, may be deferred to a following prominent heavy syllable with a long vowel, and thus is never functional, but is predicted in terms of juncture and other features.

There are 30 consonant phonemes including four anomalous ones which are not part of the minimal contrastive system for all idiolects. Three of these are recent borrowings from English, while one seems to be an autonomous development in the direction of greater pattern symmetry, albeit with some support from English. Consonants may be classed according to several criteria as limited/unlimited in distribution, simple/coarticulated, stopped/

continuant, oral/nasal, participant/non-participant in phonologically conditioned morphophonemic alternations; but essentially what at first appears to be an asymmetrical collocation is in fact a highly integrated system -- a system integrated by both oppositions and crosscutting unities. Distributional and phonetic ranges are strikingly parallel, not only allophonically, but phonemically and morphophonemically as well.

Vowels occur in five phonemic quality ranges and two contrastive quantities. Length is analyzed, for reasons of distribution and pattern congruity, as a prosodic and phonemically separable unit. Abundant minimal pairs may be demonstrated for all phonemes.

In addition to the prosodic feature of vowel length and the non-phonemic stress, there are five additional suprasegmental features: four phonemic junctures and one phonemic phrasal pitch suprasegment. Other ideolectal, dialectal, and stylistic features have not been phonemicized.

II. Morphophonemics. There are two kinds of phonomechanical processes to be noted: first, the simplification of consonantal sequences resulting

from morpheme combination, specifically through elision and modification, and second, syncopation at morpheme boundaries.

The most extensive phonological processes, however, affect vowels and involve harmony, ablaut, and lengthening. These modifications are not phonomechanical but are induced by specific morphological elements.

III. Morphology. Wintu structure is rather synthetic, the technique of synthesis being mainly agglutinative, but characterized also by a certian amount of fusion and symbolism. The most important morphological processes are (in order of importance) suffixation, vocalic ablaut, and reduplication, with very limited amounts of prefixation, compounding, consonant abluat, proclisis, postclisis, and, rarely, suppletion. Wintu thus stands between Takelma and Yokuts, two other previously described Penutian languages, in that it has less formal apparatus than Takelma and more than Yokuts, but more derivational apparatus than Takelma and perhaps less than Yokuts.

Morphs characteristically have the shape C, ·C, V, V·, CV, VC, CVC, and CV·C. Longer sequences of syllables up to a maximum of three occur, however,

in the case of loan words and reduplicated forms. Morphemes are combined in sequences which may be defined as morphemic words in terms of fixed order criteria, i.e., a sequence of morphemes whose order is fixed relative to each other constitutes a morphemic word. For the most part the boundaries of morphemic and phonemic words coincide, giving full words. Morphemic words which are not also phonemic words constitute a different type of unit designated clitic. Clitics also differ from full words in their syntactic properties. The major order of morpheme classes within the word is based on a nuclear morpheme cluster (stem or theme) preceeded maximally by two position classes of optional occurrence (directionals and locationals) and followed by a limited number of position classes of derivational and, finally, inflectional suffixes.

The morphologically defined word classes are verbs, substantives, sentence connectives, and uninflected words. Most radicals can occur with both verb and substantive derivation and inflection, while some appear limited to only one class membership. A few radicals occur in one of the first two classes and in the third class as well. Verbs and substantives are characterized by their distinctive inflections, sentence

connectives by their roots, while the uninflected words always occur in a fixed (invariant) form. Of these classes the verb is the most complex as regards morphological and phonological structure.

Three main classes of verbs are distinguished: auxilaries, independent verbs (including a subclass of adjectival verbs), and dependent verbs.

Fundamental (unanalyzable) root morphemes with semantically general meanings -- many of which, on the submorphemic level, show partial semantic and formal resemblances of a symbolic nature which may be only partially analyzable diachronically -- are mostly monosyllabic, although some disyllabic consonantal roots and a few triconsonantal loans are found. Stems composed of a root plus a vocalic stem-forming suffix almost always contain two vowels. The root vowel may undergo ablaut changes, the ablaut grade in each instance being determined by the following vowel. Most verbs show three stems: indicative, imperative, and nominal.

Three major types of verbal affixes are distinguished: prefixes of direction (a very limited number); suffixes of derivational function (also limited in number) in several position classes; and suffixes of inflectional, word-forming function in one final position class, the

member morphemes of which are obligatore and mutually exclusive. Verbs can be considered to be marked for two persons although it appears clear that they were historically inflected for first person only, the other person being covertly marked only by certain suffixes which occur elsewhere with other functions. Verbs may be morphologically marked for various categories: person, subordination, plurality, evidence, negation, exhortation, voice, completion, dubitation, interrogation, and denomination, although some of these categories are also expressed in more complex periphrastic constructions employing auxilary verbs. Auxilary verbs mark aspect, tense, mode, and possibility.

The substantive, especially the pronoun, is more complex in inflection, but less complex in derivation, than the verb.

Substantives are formed largely from deverbatives composed of verb stems plus nominalizing elements or from roots with no further analyzable derivation, or from compoun stems. To these roots, stems, or compound stems, the inflectional suffixes marking aspect, case, and number are added.

Not all substantives are inflected for all categories however. Differences in inflection divide

the substantive into two classes: nouns and pronouns. Nouns are inflected for two aspects, one two, or four morphological cases, and, rarely, for two numbers. Nouns are themselves subdivided into inalienably possessed nouns, alienable possessed nouns, and non-possessed postclitics; inalienably possessed nouns obligatorily occur with one of a small number of prefixes. Alienably possessed nouns are further subdivided

into a number of subclasses on the basis of formal differences in derivation and inflection. Pronouns are inflected for two aspects, three numbers, and various cases. Like nouns, they are subdivided on the basis of formal differences in derivation and inflection into three subclasses: personal, interrogative, and demonstrative. Personal pronouns distinguish four persons, except in the singular where only three are distinguished. While there is a great proliferation of personal pronouns, they are rarely employed and not all series are complete for all categories.

Uninflected words include proclitics, exclamatives, conjunctions, and adverbials, all distinguished by their syntactic function.

IV. Syntax. The largest syntactic unit is the sentence. Sentences consist of arrangements of morphologically defined words terminated by a period juncture /./. These arrangements of words are of two types depending on the morphological class of their members. The presence or absence of a word belonging to the morphological class verb separates them into clauses and phrases.

Clauses, which are terminated by a comma juncture /,/ except when occurring sentence finally, obligatorily contain verbs. Phrases obligatorily contain nouns, and never verbs. Clauses are of two types: dependent and independent, contingent on the type of inflectional ending forming the verb, that is, on whether the verb contained is dependent or independent. Independent verbs take the personal inflectional suffixes, whereas dependent verbs are formed by subordinating inflectional suffixes which are mutually exclusive with those of person.

Two types of sentences are defined in terms of restrictions on occurrence: independent and dependent ones. Independent sentences may introduce a discourse or may in themselves constitute a discourse. Dependent sentences never constitute a discourse or occur first in discourse, but only occur following independent sentences. Independent sentences contain obligatorily one independent clause, and optionally other independent and dependent clauses as well as phrases. Dependent sentences never contain an independent clause, but may contain, or consist of any other clause or phrase, or may even consist of a single word.

Clauses and phrases are composed of four types of

syntactic units -- heads, attributives, satellites, and conjunctions -- established on the basis of dependence and agreement relation and syntactic function. Conjunctions connect words, phrases, and clauses. Satellites include forms which function as subject, object, or possessor and show instrumental, locative, or quotative relations. The heads of clauses are always verbs, of phrases, nouns. Words unilaterally dependent on the heads of clauses and phrases are attributives. Attributives of nouns are adjectival in function, attributives of verbs are adverbial and auxilary in function.

While the ordering of clauses and phrases in a sentence is free, within clauses and phrases the word order of the attributives of nouns, auxilary attributives, conjunctions, and one type of satellite is restricted. Adverbial attributives and other satellites are free to occur at any word boundary although certain positions seem to be statistically preferred. Thus the order of occurrence of the auxilary attributives of the verb, of which there may be a maximum of five co-occurring within an independent clause, is rigidly fixed with respect to the main verb and to each other. Attributives of nouns always precede the noun head they modify. The

conjunction is usually the first word in the second of the two syntactic units being connected, and the quotative demonstrative pronoun immediately follows a quotation.

The most important types of syntactic relations are concord (agreement) and dependence. The substantival morphological cases play a relational role in marking subjects, objects, instrumentality, location, and possession, expressing these functions differently in active and passive constructions. The relation of noun heads to their attributives, verbs to substantives, and various other syntactic functions are indicated by concord in their respective morphological cases.

While a great deal of specificity in expression is possible, only certain semantic areas are overtly dealt with in great detail. Verbal categories are many and detailed and primarily obligatory in their expression, while ellipsis in substantival categories is a prominent part of the syntax. Inference plays a large role in the latter case although specification is possible for emphasis and clarification. Thus unless overtly marked for person, the first predication in a discourse is assumed to be in the first person. First person markers are only introduced for emphasis or to express number. Overtly expressed subjects and objects are, in general,

not typical; they are rather incorporated semantically in the verb, that is, the meaning of the verb implies a certain object or subject.* Conjunctions are then employed to indicate maintainence or reversal of subject - object relations in successive predications. The large number of pronominal forms are generally restricted in function to the expression of number, emphasis, or contrast, and are infrequently used. Certain substantival qualities of animateness, number, dispersal, and individuality, as well as contrast between groups are made explicit through the use of the formal category of noun aspect and the disjunctive proclitic.

In an analogous way certain overtly expressed obligatory categories of verbs, such as evidence, are the focus of formal expression (parallel to noun aspect), while other categories, such as tense are not typically marked.

* This is, of course, not formal incorporation.

Chapter II

Phonology

1. Suprasegmental Phonemes. The suprasegmental features of stress, pitch, and pause form contours which will be used as the distributional frame for the establishment of the segmental phonemes. The junctural pauses or transitions and phrasal pitch are phonemic in status, i.e., unpredictable and marking meaning distinctions, while syllable stress and pitch are predictable partial components of the two junctures /-/ and /+/. The phonetic data allow of only one interpretation. That is, junctural transitions and pauses would not be predictable if phonemic stress or phonemically prominent syllables were assumed, while stress is predictable in terms of phonemic juncture.

1.1. Junctures. There are four phonemic junctures: plus /+/, hyphen /-/, comma /,/, and period /./. They are ranked by the magnitude of their phonological transition and their morphological and syntactic function from least to greatest magnitude respectively as: /-/, /+/, /,/, /./.

Plus juncture consists of potential pause and the conditioning of three phonetic features: the location of higher pitch, the location of relatively heavy, i.e., primary, stress which phonetically consists of both tenseness and loudness, and the allophonic release of immediately preceeding obstruents. The contour boundaries marked by /+/ delimit sequences of phonation which will be called phonemic words. These are coterminous with the freely volunteered short forms elicited from informants which may be referred to as informant words. Each phonemic word, then, is preceeded and followed by pause or potential pause and consists of one contour with only one prominent syllable of higher pitch and primary stress.

The location of the pitch and stress within the phonemic word bounded by /+/ is determined by the structure of the syllable and its position relative to the juncture. Syllables are of three structural grades, determined by the presence or absence of length and semi-vowels. Light syllables contain short vowels not followed by a semi-vowel. Heavy syllables contain short vowels followed by a semi-vowel (which may be a member of the next syllable);

extra heavy syllables contain long vowels. The prominent syllable of a phonemic word is always the first syllable following the juncture unless the second syllable is heavier in which case the second syllable is stressed. When a hyphen juncture intervenes between any two plus junctures, the prominent syllable is determined beginning from the position of the hyphen juncture rather than that of the first plus juncture. A secondary pattern of stress and pitch is conditioned between the initial plus juncture and the hyphen juncture which is described in the discussion of hyphen juncture.

Examples are:

[ˈcíyel] /+ˈciyel+/ 'one to be squashed'

[ˈciyí·ya] /+ˈciyi·ya+/ 'to be all squashed up'

[ˈciyé·da] /+ˈciye·da+/ 'I squashed them up'

The degree of intensity in the primary stress of the single prominent syllable in each word is dependent on two environmental factors. The greater the preceding juncture, the greater the intensity of the stress; the more fortis the glottalization of a preceding consonant or the articulation of a preceding /ʔ/, the stronger the stress. The latter factor of glottal stricture varies with the ideolect but appears consistent within each ideolect.

A weaker, or secondary stress, occurs on any heavy syllable following the prominent syllable and varies in intensity, being proportionately stronger as that syllable is further from the preceding prominent syllable.

The weakest degree of stress occurs on any syllable which is not already stressed and immediately follows a phonemic juncture. The variation in this degree of stress has a small range parallel to that described above for pri-

mary stress with respect to junctural magnitude and glottal articulation.

Examples of the various distributions of stress and pitch within a phonemic word are given below. [ˊ] indicates the prominent syllable of higher pitch and greater stress, [ˋ] the syllable with secondary stress, S an extra heavy syllable, S a heavy syllable, and s a light syllable.

ś	[ní]	/+ni+/	'I'
Ś	[bó·s]	/+bo·s+/	'house'
śs	[kírim]	/+kirim+/	'cat, obj. case'
Śs	[máyum]	/+mayum+/	'feet, obj. case'
Ss	[ˈpé·len]	/+ˈpe·len+/	'we two'
sS	[holówa]	/+holowa+/	'to scare someone'
sS	[lilá·]	/+lila·+/	'to accuse'
SS	[ˈcuyé·]	/+ˈcuye·+/	'to suck with the lips'
SS	[bé·lè·s]	/+be·le·s+/	'it could be'
śsSs	[wérlebò·sken]	/+werlebo·sken+/	'you will have to come'
śssS	[kénehalè·s]	/+kenehale·s+/	'it might be'
SsS	[tú·nunà·]	/+tu·nuna·+/	

'to haul big things'

sS̲S̲ [ʔolé·lbè·s] /+ʔole·lbe·s+/ 'God'

Hyphen juncture /-/ represents a phonemically functional unit with phonetic properties contrastive with other junctures. Phonetically it is a transition with the potential of a very brief pause and conditions unreleased allophones of obstruents. Like plus juncture, hyphen juncture affects the location of syllables of higher pitch and stress. But whereas plus juncture marks the contour of a phonemic word, conditioning the location of the syllables of greater stress and pitch, hyphen juncture modifies the contour, shifting the pitch and stress. Hyphen juncture is limited in distribution to occurrence within phonemic words. It is therefore the juncture of least magnitude, being the only one occurring within words (specifically following a few prefixes and within a few compounds).

Examples of minimal pairs demonstrating the contrast between close transition, hyphen juncture and plus juncture are:

/+ʔelwine+/ 'with, along, accompanying'

/+ʔel-wine+/ 'to look at straight in the

eye'

/+ma•tceki+/ 'ear wax'

/+ma•t-ceki+/ 'one split ear'

/+ʔukin-su•s+/ 'they belong to that tribe'

/+ʔukin+su•s+/ 'they were standing there'

/+ne•l-be•s+/ 'we are related through the same mother'

/+ne•l+be•s+/ 'we two slept'

The rules stated above for predicting the occurrence of pitch and stress in terms of plus juncture are modified by the occurrence of hyphen juncture within a phonemic word. Only secondary stress may occur on syllables preceding /-/ within a word. Like primary stress, this secondary stress always occurs on the initial syllable of the word unless the second syllable is heavier, in which case the second syllable has the secondary stress.

Examples of the various distributions of stress and pitch within phonemic words containing a hyphen juncture are given below, using the same symbolization employed in the discussion of

plus juncture.

s̀-ś	[nètnén]	/+net-nen+/	'my mother'
S̀-Ś	[nè·lbé·s]	/+ne·l-be·s+/	'we two are related through the same mother'
S̀-śs	[wàyhóla]	/+way-hola+/	'ceremonial pipe'
s̀-Śs	[mèmwáya]	/+mem-waya+/	'north part of the stream'
S̀s-sŚ	[wàytinomé·l]	/+wayti-nome·l+/	'Dog Creek'
S̀s-Śs	[wàytisáwal]	/+wayti-sawal+/	'Waitisaw, a sp. place'
sS̀-śs	[pubà·npúrun]	/+puba·n-purun+/	'of those others'

Comma juncture /,/ has two phonetic features: a fully realized pause accompanied by glottal stricture. While plus juncture is of greater magnitude than hyphen juncture and marks phonemic words, the contour boundaries marked by comma juncture delimit sequences of phonation called phonemic phrases, within each of which obligatorily occurs one phrasal accent of unpredictable location. (See 1.2)

Period juncture /./, the juncture of greatest

magnitude, has four phonetic features: a fully realized pause which need not be followed by further phonation, an associated glottal stricture, a preceding phrasal accent of unpredictable location with allophonically different pitch level from that of the accent preceding comma juncture, and a terminal pitch contour which drops sharply in pitch level and voicing. Period juncture delimits phonemic sentences.

Examples of comma and period juncture are:

/ba·s-bo·sin+net, nis+λiya./ 'They threw rocks at me because I was eating'

/ba·s-bo·sin+mat, mis+λiya./ 'They threw rocks at you because you were eating'

1.2. Phrasal Accent. Phrasal accent /ˊ/, consisting of very high pitch and particularly heavy stress, occurs on one of the prominent syllables within each contour marked by /,/ or /./. Its occurrence is obligatory within such contours but its position of occurrence is unpredictable. It is further characterized by a

different pitch level on the syllables which follow, depending on whether the following juncture is /,/ or /./. If pitch [3] is high, pitch [2] mid, and pitch [1] low, the syllables preceding the accented syllable are marked by pitch [2], the accented prominent syllable by pitch [3], and the following syllables by pitch [2] before /,/ and pitch [1] before /./.

Examples are:

/sukuyum+límcada./ 'My dog is sick'

/súkuyum+limcada./ 'My dog is sick'

2. Segmental Phonemes. There are 33 segmentals, of which 27 are consonants, 5 are vowels, and 1 is vowel length (a prosodic feature distinguished from the suprasegments). In addition there are 4 anomalous phonemes which are of very rare occurrence: 3 consonants and 1 vowel. Of the consonants /f/ and /ǰ/ were recently borrowed, and /θ/ occurs only in the ideolect of C. D., my main informant, and is elsewhere represented by /λ/. The vowel /æ/ occurs in only one loan word.

2.1. Consonants. Two types of consonants are distinguished by distribution: those of unrestricted and those of restricted occurrence. All the restricted consonants are limited to syllable initial pre-vocalic position, except /r/ which is excluded from word-initial position, i.e. never occurs after any juncture, and /θ/ which never occurs initially in a syllable or word; both /r/ and /θ/ may occur prejuncturally, i.e. in word final position, unlike the other restricted consonants.

Unlimited Distribution

	Bilabial	Dental-Alveolar	Palatal	Velar	Post-Velar	Glottal
Stop						
voiceless	p	t		k	q	ʔ
Continuant						
voiceless		λ	s			h
voiced	w	l	y			
Nasal						
voiced	m	n				

Limited Distribution

Obstruent						
glottalized	p̓	t̓	λ̓	c̓	k̓	q̓
aspirated	p^h	t^h		c		
voiced	b	d	r			
Continuant						
voiceless				x	x̣	
Anomalous	f	θ		ʃ		

The phonetic values assigned below refer primarily to the McCloud River dialect. Only /λ/ and /s/ have significant dialect variants.

In the bilabial and dental-alveolar positions of articulation there is a four-way contrast in the manner

of articulating the stops: glottalized, aspirated, voiced, and plain (unaspirated). Bilabials:

/p/ voiceless, unaspirated, always lenis.

/p^h/ voiceless aspirated, usually fortis.

/$\dot{p}$/ glottalized, fortis among some younger informants and in citation forms, but lenis in normal speech.

/b/ voiced and fortis.

In the dental position of articulation younger and more acculturated informants employ alveolar stop articulation as in English, while older informants seem to prefer a post-dental position, or a position on the gums when the teeth have been lost. These apical alveolars are:

/t/ voiceless unaspirated, always lenis.

/t^h/ voiceless aspirated, usually fortis.

/$\dot{t}$/ glottalized, as for /$\dot{p}$/

/d/ voiced and fortis.

In the velar and postvelar positions of articulation there is only a two-way contrast in the manner of articulation of stops: glottalized, and non-glottalized (voiceless).

/$\dot{k}$/ glottalized, usually lenis, with slight friction of tongue on palate. There are three focal allo-

phones along a continuum of points of articulation: [k̂'] pre-velar before /i/ and /e/, [k'] velar before /a/, and [k̦'] backed somewhat in the velar position before /u/ and /o/; the last allophone overlaps with the front allophone of /q/ before /i/ and /e/ in the speech styles of some informants, but only in point of articulation (see below).

/k/ voiceless, most often slightly aspirated, usually lenis; varies similarly from [k̂^{h}] prevelar....[k^{h}] velar....[k̦^{h}] backed, before /i, e/, /a/, and /u, o/ respectively.

/q'/ glottalized, usually fortis, with a strongly spirantalized release and much friction at the points of articulation as [q̂'^{x}]; varies in position of articulation from a slightly fronted position before /i/ and /e/ to a more backed position before other vowels.

/q/ voiceless, usually lenis, most often unaspirated but in rare instances slightly aspirated; similarly to /q'/ varies in position from [q] to [q̦] before /a/, /o/, and /u/.

Of the above stop consonants only /p/, /t/, /k/, and /q/ occur syllable finally as well as

initially, and they all share the following features of syllable-final position allophony:

Before /,/ or /./ they are all closely followed by a slight glottal stricture and an audible release after the occlusion of the appropriate stop. This is no identical with the articulation of the glottalized series of stop phonemes in which the occlusion is generally less tense and the glottalization is a coarticulated and non-delayed feature. The allophones of /k/ and /q/ in this position exhibit none of the friction which is present in the glottalized series, but resemble the non-glottalized stops. The audible glottal stricture following closure of the stop is here (as after /m/, /n/, /l/, /w/, and /y/; see below) interpreted as one of the phonetic components of the junctures /,/ and /./.

Before /+/ these four stops all show an aspirated release which is not fortis as in the case of the aspirated stop phonemes (which occur only initially), but which is so lenis as to constitute usually no more than an audible release in rapid speech and a lenis aspiration in citation forms. The aspiration is interpreted as one of the phonetic components of the juncture /+/.

Before /-/ and before close transition, all of these stops are unaspirated and usually unreleased, resembling their syllable-initial allophones, except /k/ which is weakly aspirated in initial position.

A glottal stop /ʔ/, which has an audible release before /,/ and /./ and is of unrestricted occurrence, is weakly articulated except when the speaker is being deliberate or emphatic. This phoneme is in free variation with zero in initial position and in medial position in rapid speech, but is always fully articulated pre-juncturally. (Note also that the glottalized phonemes are normally articulated in a lax manner, particularly when they are not post-junctural, although some slight glottal coarticulation is never absent, and the acoustic quality of these stops is often quite similar to that of voiceless unaspirated stops. Only in some ideolects or in emphatic speech is fortis glottalization employed; this is somewhat parallel to the glottal stop initially.)

All stop phonemes which occur syllable-finally before other consonants in word-medial two-consonant clusters (the only consonant clusters which exist) are unreleased and are assigned to the voiceless

plain series of unrestricted stops.

Examples are given below of the stop phonemes contrasted initially before each of the five vowels by minimal and subminimal pairs.

/pite/	'in-law'
/pe·t/	'to fold'
/pat/	'outside'
/pot/	'intestines'
/put/	'them'
/pʰit/	'feathers'
/pʰe·ta/	'to pound'
/pʰata/	'to press on something'
/pʰotuma·/	'to boil'
/pʰu̓tiri/	'wild iris'
/p̓i·ta/	'to squeeze out through a small opening'
/p̓e·l/	'we (dual inclusive)'
/p̓ata·/	'to be thick'
/p̓otx̣om/	'poison oak'
/p̓uta·/	'to grow old (of women)'
/bita·/	'to make a dent'
/be·di/	'don't!'
/ba·t/	'seeds'

/bo·s/	'afterbirth, home, tribe'
/bu·t/	'boat'
/tika·/	'to make a waterfall'
/tekit/	'a waterfall'
/taka·/	'to hack'
/toki/	'handgame sticks'
/tuka·/	'to make handgame sticks'
/t^{h}ike/	'to get jealous (of women)'
/ʔcilt^{h}ek/	'mole (on body)'
/t^{h}a·ka/	'to spill solids'
/t^{h}o·m/	'to be straight'
/t^{h}ume·/	'to coo (of grouse)'
/ʔtikel/	'to be swollen'
/ʔtelik/	'to lick'
/ʔta·ka/	'to make a hollow in sand to allow water to run off'
/ʔtokot/	'sunfish'
/ʔtuke·/	'to be submerged'
/dika/	'to climb'
/dek/	'climb!'
/dakis/	'girl' (obsolete)
/do·ka/	'to be breathless, faint'
/dukal/	'sunk in'
/kike·/	'to be frosty, icy'

/kela/	'to be long, tall'
/kaka·/	'to crawl'
/koko·ra/	'to bounce with short bounces'
/kula·/	'to join things together'
/ḱil/	'hail, gravel'
/ḱelel/	'soot, ashes'
/ḱalaq/	'feathers'
/ḱoles/	'hooves, claw'
/ḱule/	'yellow pine'
/ʔel-qilay/	'curved mountain edge'
/qewel/	'house'
/qalaw/	'alder'
/qo·l/	'mouth'
/qu·le/	'elkhide'
/q̓ile·/	'to anoint, paint'
/q̓ede/	'arm'
/q̓an/	'wing'
/q̓olca/	'to be fair weather'
/q̓ulʌa·/	'to borrow'
/ʔilay/	'child'
/ʔelew/	'no'
/ʔa·la/	'to be unable to do something'
/ʔol/	'up'

/ʔule•s/ 'almost, if'

Examples are given below of the stop phonemes contrasted in final position in submininal pairs.

/no•p/ 'deer'

/ba•t/ 'food'

/wintʰik/ 'he was going recently'

/te•req/ 'buckskin'

/taʔ/ 'child-in-law'

Voiceless spirants:

/f/ [f] labio-dental; anomalous; occurs in only two forms: /foriǰulay/ 'July Fourth' and /friho•lis/ 'beans' (the only example of a non-medial consonant cluster).

/θ/ [θ] interdental after /i/; after /u/ and /o/ the tongue proceeds from a retroflexed position moving forward in an approach to the teeth as the articulation progresses: [$^{R}_{\cap}$θ̣]. /θ/ occurs only word-finally, is of rare frequency, is used only by my main informant, and while it contrasts with /λ/ in her dialect, all other informants employ the phonetically similar /λ/.

/s/ older speakers employ [ṣ], a retroflexed postalveolar slit spirant, before or after /a/, /o/, and /u/ and a non-retroflexed post-

alveolar slit spirant elsewhere. Younger speakers use the latter sibilant or an apical-alveolar everywhere.

/λ/ an apical-alveolar laterally-released [ɬ], freely varying initially with [tɬ] ([ƛ]), an apical-alveolar affricate with a lateral release. These two syllable-initial allophones occur in McCloud speech although [ɬ] is much more frequent. In Trinity speech only the affricate [ƛ] occurs. In both dialects in final position after /u/ and /o/ (similarly to /θ/) the tongue moves from a retroflexed position forward to approach the teeth as [$^{R}_{\sim}$ɬ]. In both dialects in syllable-final position the points of articulation are post-dental after /a/ and inter-dental after /i/ and /e/.

/x/ has allophones varying in position from [x̠]....[x]....[x̟] in a distribution identical to the velar stops. Lenis articulation of /x/ is characteristic.

/x̟/ has allophones varying in position of articulation identical to the post-velar stops, and consequently has some allophones which overlap those of /x/ so that /x̟/ before /i/ and /e/ overlaps with /x/ before /u/ and /o/. However

/x̣/ is more fortis in articulation than /x/.

/h/ voiceless and fortis, occurs in all positions, is distinct from /x/ and /x̣/ which have friction, and from /ɦ/ which is voiced and not fortis. Before /u/, /o/, and /a/ it is a glottal spirant. Before /i/ and /e/ it is a pre-velar spirant with minimum friction. In syllable-final position it is a voiceless non-vocalic offglide with the same position of articulation as the preceding vowel, and is relatively fortis in citation forms.

Examples of the spirant phonemes, contrasted in minimal and subminimal pairs are given below.

/foriʃulay/	'July Fourth ' (English)
/friho·lis/	'beans' (Spanish)
/ci·θ/	'suckerfish'
/yoryoθ/	'June bug'
/nuθ/	'live salmon'
/sileʎ/	'a blind person'

/seλa·/	'sitting'
/saqaλ/	'watersnake'
/so·ha/	'to have a cross-sibling'
/su·yus/	'to haul seine'
/λili·pus/	'a whistle'
/λes/	'shadow, shade, ghost, devil'
/λala/	'to stink'
/λos/	'foam, saliva'
/λuλam/	'lime rock'
/xiliha/	'to be a lot of flies'
/xeli/	'door'
/xara·/	'to gnaw'
/xolom/	'sunflower'
/xuna/	'nearer to oneself'
/χila·/	'to move one's eyes'
/χer/	'manzanita flour'
/χahal/	'to be lazy'
/χos/	'steam, fog, gas'
/χuna/	'to get dry, be dry, have tuberculosis'
/hisat/	'how many'
/hestam/	'how are you?'
/ha·sma/	'to keep on yawning'
/holhol/	'throat'

/hu·s/ 'turkey buzzard'

/soh/ 'cross-sibling'

Affricates:

/ʔλ/ a glottalized apical-alveolar laterally released [$t^{l}_{\wedge}$] with a fortis articulation and much friction during the lateral release; the glottalization is always clear; the occlusion of the affricate occurs in the dental position among the older speakers as for the stops /t, t^{h}, ṭ, d/.

/c/ a fortis palatal voiceless [$t^{š}_{\wedge}$] beginning in the dental or apical-alveolar position as above; fortis.

/ʔc/ the same as /c/ but glottalized; the glottalization is as strong as for the glottalized stops already described.

/ǰ/ the same as /c/ but voiced; i.e. [$d^{ž}_{\wedge}$]; occurs only in /foriǰulay/ 'July Fourth'.

Examples of the affricate phonemes, contrasted in minimal and subminimal pairs, are given below.

/ʔiλe/	'acorns'
/ʔereyu/	'tiger lily'
/ʔal/	'shell'
/ʔol/	'baby-basket'
/ʔuλci/	'marrow'
/cileq/	'to be angry (of men)'
/celma/	'to stripe (obsolete)'
/cala·/	'good'
/colcoθ/	'mountain quail'
/culca/	'to spill liquids accidentally
/ʔcices/	'sharp-pointed'
/ʔcel/	'cheek'
/ʔcaraw/	'a flat place'
/ʔcoro·r/	'spinal column'
/ʔcu·la/	'to pour in one spot'

Voiced continuants:

/m/ a bilabial voiced nasal stop [m] with a closely following, but not coarticulated glottal stricture and audible release before /,/ and /./ (as for stops), and as first member of a medial two-consonant cluster a component of voicelessness

before voiceless consonants in rapid speech.

/n/ a dental or apical-alveolar voiced nasal stop [n] with a glottalized final allophone before /,/ and /./ as for /m/, and a medial fading to voicelessness before voiceless consonants as for /m/. The dental position is preferred by older speakers.

/w/ a rounded bilabial voiced semivowel with the quality of non-syllabic [u] slightly lowered before non-front vowels, and with a glottalized allophone before /,/ and /./ as for the nasals.

/r/ never occurring post-juncturally, is a voiced trill except intervocalically where it is a voiced flap similar to but contrasting with /d/; pre-juncturally its final articulation fades out to voicelessness with an aspirate release in careful or slow speech. It is retroflexed in tongue position with the apex approaching the palate, and is never glottalized.

/l/ a dental or apical-alveolar lateral always fully voiced, and with a glottalized final allophone before /,/ and /./ as for the stops and nasals. Very rarely are /r/ and /l/ confused,

and then the informant will make an immediate correction, but in the form for 'acorn meal' two informants frequently volunteered /l/ for /r/ in /ʔiλexer/.

/y/ a voiced palatal semivowel with the quality of non-syllabic [i], but somewhat lowered before or after low vowels, and with a glottalized allophone before /,/ and /./ as for stops, nasals, /l/, and /w/.

Examples of the voiced continuant phonemes, contrasted in minimal and subminimal pairs, are given below.

/minel/	'dead'
/mem/	'water'
/mana·/	'to miss'
/mo·ri/	'tamarack'
/muyhuyu·q/	'tadpole'
/nirit/	'grouse'
/ne·res/	'to be like'
/nanama/	'to tell the truth'
/nomkensu·s/	'Hynpom Indians'
/nurmem/	'salmon soup'

/wira/	'to come'
/werun/	'shall I come?'
/wayken-ḱuda/	'to enter a dwelling'
/worimeluy/	'watermelon' (< English)
/wu•ya/	'to have lots of brains'
/lila/	'to manufacture'
/lelu-heres/	'appointee, honorable one, transformed one'
/lapal/	'to lose (games)'
/lo•yos/	'front apron'
/luciqi•r/	'the way hummingbird flies'
/yirmet/	'mountain lizard'
/yemer/	'trail, road'
/yarum/	'white spot on throat of black bear'
/yor/	'tear and rip up white grass (genus Yucca) for baskets!' (imperative)
/yura/	'to tear and rip up white grass (genus Yucca) for baskets'

/ˈca•wam/	'do you sing?'
/net-ta•n/	'my father'
/la•w/	'sinew'
/ba•r/	'of eating'
/pa•l/	'two'
/may/	'two feet'

Summary of consonants:

	Labial	Dental	Palatal	Velar	Post Velar	Glottal
Stops						
unaspirated	p	t		k	q	
aspirated	p^h	t^h				
glottalized	ˀp	ˀt		ˀk	ˀq	
voiced	b	d				
Spirants						
voiceless		λ	s	x	χ	h
Affricates						
voiceless			c			
glottalized		ˀλ	ˀc			
Sonorants						
oral	w	l	r,y			
nasal	m	n				
Anomalous	f	θ	ʃ			

2.2. Vowels.

	Front	Central	Back
High	i, i·		u, u·
Low	e, e·	a, a·	o, o·
Anomalous	æ		

/i/ a short high front unrounded vowel [i] varying to lower high [$I^{\vee}$] and to slightly centralized [$I^{>}$].

/i•/ a long close high front unrounded vowel [i•] varying to [I•] and [I>•].

/e/ a short mid front unrounded vowel varying from [E] to [e] to [ɛ^] to [˂e].

/e•/ a long close mid front unrounded vowel whose quality varies as for /e/.

/a/ a short low central unrounded vowel varying from [˂a] to [a] to [ˇe] to [˂ʌ].

/a•/ a long low central unrounded vowel whose quality varies as for /a/.

/o/ a short mid back rounded vowel varying from [o] to [ɑ] to [˂ɑ] to [ɔ].

/o•/ a long mid back rounded vowel whose quality varies as for /o/.

/u/ a short high back rounded vowel varying from [u] to [uˇ] to [U] to [˂U].

/u•/ a long high back rounded vowel whose quality varies as for /u/.

/æ/ a short lax open front unrounded low vowel occurring in only this form: /kæ nluh/ 'candle'.

The vowel allophones are distributed according to the environments shown in the chart below. All vowels are voiced and oral. In the environment [ʔ_] all

vowels are very slightly nasalized. Vowels are most tense after /ʔ/, when stressed [ˊ], [ˋ], and when long [:] or half long [·].

	/i/	/e/	/a/	/o/	/u/
[_y]	i·	e·	a·	ɑ·	u·
[_ˊ·]	i:	e:	a:	ɑ̂:	u:
[_ˋ·]	i·	e·	a·	ɑ·	u·
[_·]	iˇ·	E·	a·	ɔ̂·	uˇ·
[_ˊ]	Î·	E·	a·	ɔ́·	Û·
[_ˋ]	I·	E·	â·	ɔ·	U·
[_]	I	ɛ̂	˂ʌ	ɔ	U
[_q]	I	˂ə	əˇ	˂ɑ	˂U
[ʔ_]	I	ɛ̂	˂ʌ	ɔ	U
[_h]	I	E	˂a	ɔ	U
[_#]	iˇ	Ê	a	ɑ	uˇ
[_ʔ]	I	E	a	o	Û
[_w]	I·	E·	a·	o·	u·

Square brackets enclose the specific environment. The vowel phoneme in the left hand column has the allophone expressed in the chart when the phoneme occurs in the position of the underline. [_] refers to all other environments.

Examples of the vowel phonemes, contrasted in minimal and subminimal pairs, are given below.

/mi/	'you, singular, subject'
/mi·/	'tree'
/male·t/	'you, pluralinclusive, object'
/mat-/	'your, singular'
/mu·ka/	'to be dome-, umbrella-, or inverted-pot-shaped'
/muku·s/	'spoon, scoop'
/moλ/	'a kind of willow'
/mo·λ/	'a fish looking like a striped suckerfish'

Additional minimal and subminimal pairs of examples of length are given below.

/ʔi·h/	'acorn(s)'
/ʔih/	'you do it'
/keruma·/	'to slaughter'
/keruma/	'to finish'
/sukma·/	'goodbye'
/sukmah/	'you make them stay!'
/ʔcu·s/	'wood'
/ʔcuhus/	'gambling'

/sede·ha/ 'to glide, float, sail, fly through air'

/sedeha/ 'to be like coyote, silly, promiscuous'

Although length /·/ is functionally contrastive, /ˈci·kluli/ 'wild azalea' will be understood and sometimes pronounced /ˈcikluli/ although the latter form is considered stylistically inferior. Length and /h/ before junctures are not infrequently non-contrastive despite the examples quoted above.

2.3. Syllable. The syllable is determined on the basis of the following criteria: consistent informant syllabation of sequences of segmental phonemes with obligatory single consonant onset followed by a peak of sonority associated with a vowel nucleus of long or short vowel, coterminous with stress and pitch phenomena, and optionally followed by a single consonant. No initial or final consonant clusters occur within one syllable, and no heterophonous vowel clusters ever occur. The syllabic can is thus CV(·)(C).

Examples are:

CV	/qa/	'and, or'
CV•	/mi•/	'tree'
CVC	/nuq/	'pus'
CV•C	/ba•s/	'food'

Clusters of consonants occur only when a syllable ending in a consonant is immediately followed by another syllable; these may be homophonous or heterophonous but there are no examples of homophonous clusters uninterrupted by a juncture.

Examples are:

CVCCVC	/potxom/	'poison oak'
CVC-CV•C	/net-ta•n/	'my father'
CVC-CVC	/ʔel-ʔih/	'you put it in!'

Chapter III

Morphonemics

1. The phonological shape of morphemes is affected by four factors: adjacent phonemes, adjacent morphemes, speed, and dialect. Only those variations in the shapes of morphemes which are pervasive and conditioned by adjacent phonemes will be considered morphophonemic; all morphologically conditioned alternation and that conditioned by speed will be separately described for each morpheme concerned, while dialect variation will be given in the dictionary. There are two types of phonologically conditioned variation: variation in sequences of phonemes and variation in morphological shape dependent on the phonological environment. Phonologically conditioned variation in the shapes of individual morphemes is discussed under each pertinent morpheme, and is only described here if it be pervasive.

There are two types of sequential morphophonemic variation: contraction and ablaut. Contraction involves the simplification of consonant clusters, with one exception, at morpheme boundaries. Consonant clusters are of two types: homophonous and heterophonous. Morpheme combination resulting in a morphophonemic homophonous cluster is always realized as a single consonant. It is possible, however, for an informant to produce a geminate

consonant to emphasize and clarify a form. Examples are:

[heketto·t] /heketo·t/ 'anyone'

[ʔelewwar] /ʔelewar/ 'not'

[ʔel-ʔihheres] /ʔel-ʔiheres/ 'something put inside'

In word final position a morphophonemic sequence of voiced continuants /l/ or /r/ followed by /h/ is realized phonemically as a single spirant:

[lh] /λ/ [ćilh] /ćiλ/ 'bear'

[rh] /θ/ [nurh] /nuθ/ 'salmon'

In medial position a morphophonemic sequence of /r/ plus /s/, /n/, or any lateral, /l/ followed by a lateral, /n/ followed by /l/, /w/ followed by /h/, or /t/ followed by /c/ is phonemically realized as the second of the two consonants.

Examples are:

[rs]:/s/	[nor sono]:/nosono/	'South Nose,' a sp. place
[rn]:/n/	[pur nen]:/punen/	'his mother'
[rl]:/l/	[pur la·h]:/pula·h/	'his older sister'
[rλ]:/λ/	[pur λabe·]:/puλabe·/	'his older brother'
[lλ]:/λ/	[ʔel-λeλe·]:/ʔeλeλe·/	'to throw things back and forth'
[lλ́]:/λ́/	[ʔol-λ́ura]:/ʔoλ́ura/	'to pile rocks up'
[nl]:/l/	[win lel]:/wilel/	'let's see'
[wh]:/h/	[ʔuw he't'an]:/ʔuhe't'an/	'anyway'
[tc]:/c/	[yet cu]:/yecu/	'name it!'

There is one example of simplification of a heterophonous two consonant cluster within a morpheme

no longer synchronically analyzable into two morphemes.

[tx̣]:/x̣/ [potx̣om]:/poxom/ 'poison oak'

There are two types of ablaut, vocalic and consonantal. Vocalic ablaut involves a variation in vowel quality conditioned by the preceding or following vowel. It is represented by three morphophonemes.

The morphophoneme [I] is phonemically /i/ preceding /a/, and /e/ preceding /i/, /u/, /e/, or /o/.

[lIla]:/lila/; [lIlu]:/lelu/; [lIlit]:/lelit/

The morphophoneme [U] is phonemically /u/ preceding /a/, and /o/ preceding /i/, /u/, /e/, or /o/.

[dUya·]:/duya·/; [dUyu]:/doyu/; [dUyi]:/doyi/

The morphophoneme [V] is phonemically a short vowel of the same quality as the immediately preceding vowel. If that vowel is [I] they are both realized phonemically as /e/; if it is [U] they are both /o/.

Consonant ablaut only involves the bilabial stops. Before junctures and affricates the voiced bilabial /b/ is realized as the unaspirated voiceless bilabial /p/.

[ću·b]:/ću·p/ 'awl'

[ćubćubukus]:/ćupćubukus/ 'chipmunk'

There are two types of pervasive, phonologically conditioned variation in the shapes of individual morphemes. The stem II verb suffixes {u·}, {e·}, {i·}, and {i·l} have the shape V·(C) following consonants and wV(·C) following vowels. The substantival case

suffixes {um} and {un}, and the stem II inflectional suffix {t} have the shape VC following consonants and C following vowels.

Chapter IV

Morphology

1. Words and Word Classes. Words may be defined for Wintu on the basis of the morphological criterion of the occurrence of morphemes in an order which is fixed relative to each other. That is, there are position classes of morphemes which occur in invariant sequence. The unit defined as a morphological word is used as a distributional frame for determining the relative position classes of morphemes. With one exception, these position classes contain inventories of morphemes which are limited in membership. The class with unlimited membership is the root, those preceding it in sequence are prefixes, and those following it in sequence are suffixes. Only one position class, that of the root, is always obligatorily filled in all forms. But the presence of certain position classes conditions the obligatory filling of others. While the position classes are not morphemes, each

position class has a class meaning and the elements contained within a class constitute a set with common distributional properties, that is privileges of occurrence, and are mutually exclusive..

Much affixation results in forms which are endocentric, that is, which have the same external distributional properties as at least one of the component morphemes, from which a layered or cyclical procession of formations typically ensues. Many forms are then composed of distributionally similar forms which in turn have like components. The cycle may be interrupted at many points by the addition of certain types of suffixes, or may continue through several cycles of stem formation.

Non-root morphemes are thus of two types: derivational and inflectional. Derivational morphemes combine with roots to make stems or indicate that a previously formed stem is to be reinterpreted as a radical, i.e. as a single morphological unit to which the same type of material may be suffixed in the cyclical fashion described above. Inflectional morphemes indicate

that the stem can no longer be so reinterpreted, interrupting the cycle of derivation.

Only suffixes are inflectional, while prefixes, reduplication, and consonant ablaut as well as suffixes are derivational. Both derivational and inflectional suffixes may occur as the final morpheme in a morphemic word. However, members of the final position class of inflectional suffixes may only occur finally, while one position class of derivational suffixes may optionally occur finally, being also capable of being followed by other derivational and inflectional material.

The combination of morphemes into words involves suffixation, prefixation, compounding, reduplication, consonantal and vocalic ablaut, and suppletion. Suffixation is the major process of morpheme combination, being extensively used for derivation and the only process used for inflection. Prefixation is limited and occurs only with derivational value. Compounding is limited to the combination of single morphemes, roots, to formsequences which function externally as roots, called radicals; a juxtaposition yielding endocentric, co-ordinate compounds. Reduplication involves only one class of morphemes, roots, and has but a single function, that of marking iteration. Consonantal

ablaut which appears to have been a very active process in the past (See Sec. 5.) is synchronically analyzable in a few examples where it is purely derivational in function. There are two types of vocalic ablaut: phonologically conditioned harmonic variation of the root vowel of stems, and morphologically conditioned alternance in the vowels of stem ultima preceding certain suffixes. The phonologically conditioned variation has been described in Chapter II (See ‖I‖, ‖U‖). The morphologically conditioned alternance is described for each morpheme with allomorphs showing morphologically conditioned vocalic ablaut. (See {here} passive, {nt^{h}ere} non-visual sensorial evidential, {kele} hearsay evidential, and the auxiliaries {bIy}, bUh}, and {wIr}. Suppletion, like vocalic ablaut, functions allomorphically, that is a few morphemes have suppletive allomorphs.

Three morphological classes of words are distinguished on the basis of differences in inflection. Two of the classes, substantives and verbs, are marked by different sets of final position inflectional morphemes, while the third class is uninflected. Most stems may occur with either substantive or verb inflection, although some may occur with only one type of inflection and a few never occur with inflectional suffixes. A small number of stems may occur as either verbs or substantives or uninflected forms.

The final position class of inflectional suffixes diagnostic of verbs contains 15 members. They are:

{ʔel} the evidential of logical deduction, experiential

{da} 1st person suffix of selfness

{m} dubitative

{k} repeatedly in past time

{ʔa} anteriority

{ṯan} contradictory simultaneity

{sken} second person

{di} 3rd person hortative

{u•} 1st person optative-interrogative

{n} subordinating "while"

{ta} subordinating, temporal simultaneity or anteriority "while"

{so} "before" necessary anteriority

{t} personal object

{we•} 1st dual hortatory

{i•} interrogative

The final position class of substantives contains 5 members which are diagnostic of this class. They are:

{um} object case suffix

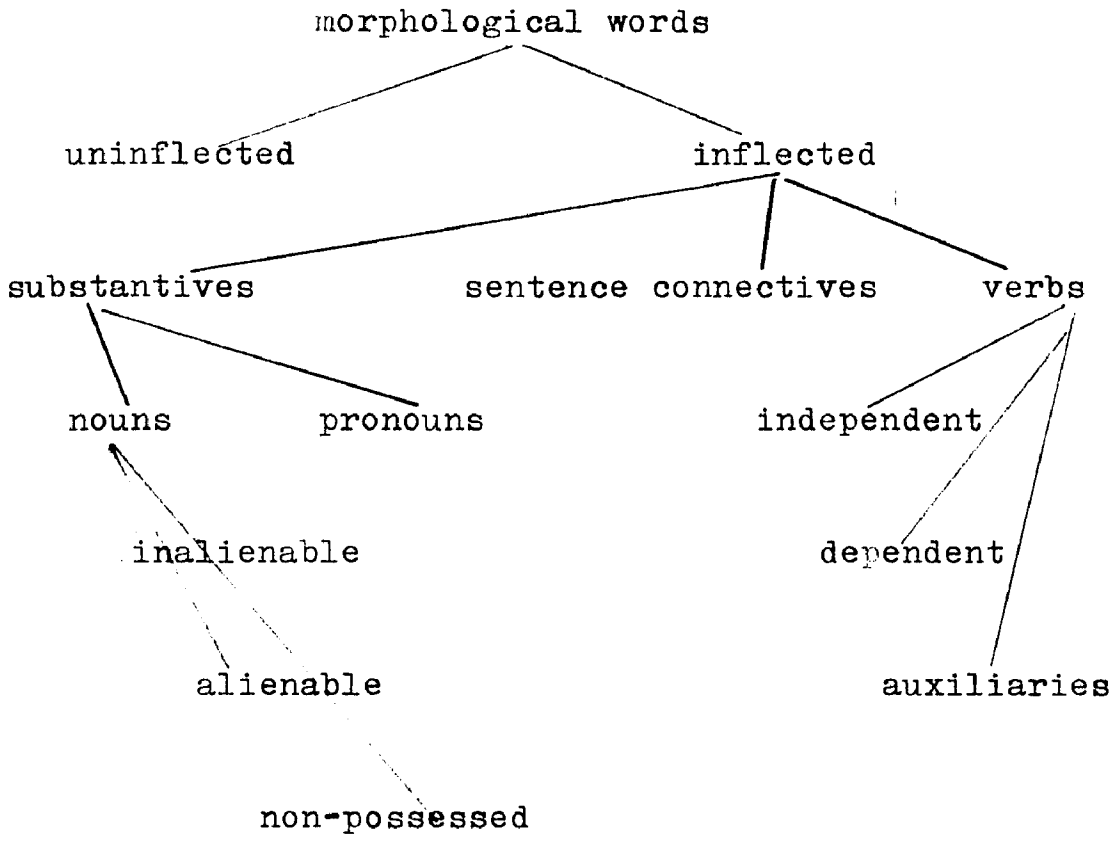
{un} genitive case suffix

{in} locative case suffix

{r} instrumental case suffix

{t} possessive case suffix

Both verbs and substantives are further subdivided on the basis of formal criteria. The classes and subclasses of morphological words thus distinguished are charted below.



2. Verbs

2.1. Verb structure. The sequences of morphemes to which the verbal inflectional endings are added constitute the verb stem. The verb stem consists of two elements: an optionally final position class of verb stem formants and a radical complex. The radical complex consists either of a root, or of a root plus one optional position class of root-deriving suffixes, and two optional position classes of prefixes, or of a radical, that is a form consisting of one of four position classes of radical forming morphemes suffixed to a previously formed stem.

Verbs are divided into a number of classes and subclasses depending on the number of stems they show, i.e. the number of stem formants with which they co-occur, and the particular allomorph each stem formant has when suffixed to them. The majority of verbs show three stem forms. A small number show only two stem forms, while a smaller group has only one stem. The classes of verbs are charted below in terms of the number of stem formants with which each class may occur,

and the particular allomorph of each stem formant morpheme which occurs with it.

The auxiliaries do not fit into any of these subclasses of conjugational types, but are quite aberrant, each one virtually constituting a separate class. Their conjugational stem forms are therefore individually described in the discussion of auxiliaries.

Chart of Conjugational Classes According to Stem Formant

Conjugation I	Stem I {a}	Stem II {u}	Stem III {i}
Class A	/a/	/u/	/i/
Class B	/a·/	/u/	/i/
Class C	/e·/	/u/	/i/
Class D	/e·/	/u/	/e/
Class E	/a/	VA	⟦V⟧
Class F	≠ ~ /a/	≠ ~ /u/	⟦V⟧
Class G	≠ ~ /a/	/u/	⟦V⟧
Class H	/e/	≠ ~ /u/	⟦V⟧

Conjugation II	Stem I-III {a}	Stem II {u}
Class I	/a/	≠ /u/
Class J	/a/	/u/
Class K	/a·/	/a/
Class L	/e·/	/e/

Conjugation III	Stem I {a}	Stem II-III {i}
Class M	/a/	/e/

Conjugation IV	Stem I-II-III {a}
Class N	/a/

≠ nothing, i.e., absence of vocalic formant

VA ablaut of root vowel; cf. ⟦I⟧, ⟦U⟧

⟦V⟧ harmonic vowel. i.e., a short vowel of the same quality as the preceding vowel.

Examples are:

Conjugation I	Stem I{a}	Stem II{u}	Stem III{i}	Gloss
Class A	/ˈca·wa/	/ˈca·wu/	/ˈca·wi/	sing
Class B	/baya·/	/bayu/	/bayi/	dauterized
Class C	/buqe·/	/buqu/	/buqi/	build a house
Class D	/ˈcice·/	/ˈcicu/	/ˈcice/	be sharp
Class E	/ˈcuta/	/ˈcot/	/ˈcoto/	undo
Class F	/ˈco·r/ ~ /ˈco·ra/	/ˈco·r/ ~ /ˈco·ru/	/ˈco·ro/	open nuts
Class G	/ˈce·w/ ~ /ˈce·wa/	/ˈce·wu/	/ˈce·we/	preach
Class H	/ˈcuqe/	/ˈcuq/ ~ /ˈcuqu/	/ˈcuqu/	help
Class I	/ˈco·ra/	/ˈco·r/ ~ /ˈco·ru/	/ˈco·ra/	burrs to open
Class J	/ˈci·qa/	/ˈci·qu/	/ˈci·qa/	wring out, squeeze
Class K	/ˈcina·/	/ˈcina/	/ˈcina·/	defecate
Class L	/huye·/	/huye/	/huye·/	save, hoard
Class M	/dukama/	/dukame/	/dukame/	put away
Class N	/ha·smena/	/ha·smena/	/ha·smena/	yawn once

Typically, verb stems are disyllabic in shape, although one monosyllabic verb stem (ba· 'to eat') is found, and some auxiliary verb stems are contracted to monosyllables, while many of the stems produced by internal derivation are longer. These longer stems behave just like the disyllabic stems in terms of external derivation and inflection. The major, disyllabic type is based on a monosyllabic root CVC or CV·C to which is suffixed a stem formant vowel, which varies for specific stem class and verb class.

Monosyllabic roots of similar phonemic shape which occur with various conjugation subclass membership, taking different allomorphs of the stem formant {a}, frequently show variations in vowel length, and often show tantalizingly similar meanings which often appear to involve a contrast in transitive versus intransitive, or iterative versus single or punctual. The variations in meaning and form do not seem to be synchronically consistent, however, and no attempt at segmentation has been made. An example of this type of partial resemblance is found in the examples of conjugational subtypes in the two

forms /ˈco·r/ 'to open nuts' and /ˈco·ra/ 'burrs to open'. Although the composition of the monosyllabic sequences occupying the radical position has not been found susceptible to synchronic analysis, the partial patterns of derivation apparent within these sequences seem, at least diachronically, to have been determining for conjugation class membership. More extensive analysis possibly based on further field work might make clearer the synchronic and diachronic patterns of relationship between conjugational subclasses on the one hand and the seeming relationship in form and meaning between individual radicals on the other.

The three stem formant morphemes constitute a single class both positionally and functionally. They form stems from radicals, occurring obligatorily before any inflectional suffixes and after any radical forming suffixes, and after all but a few roots and root deriving suffixes. They are the only class of derivational morphemes which may be a final position class, occurring finally if the verb is not inflected. One of the stem formants, {u}, may occur as many as five times within a form if

the radical consists of a number of radical derived stems. However, the last occurrence of a stem formant invariably signals that the derivational process is terminated for that form.

The stem formant {a} marks the indicative or Stem I form of verbs. This is the form quoted in the dictionary. It is commonly translated as an infinitive in English and is the form most likely to be elicited. The morpheme {a} has four allomorphs, /a/, /a·/, /e/, and /e·/, which are morphologically conditioned by the class of radical to which they are affixed. Thus {a} has the allomorph /a/ when suffixed to verb classes A, E, F, G, I, J, and M. It is only suffixed to members of classes F and G, however, if inflectional suffixes are also added.

{a} has the allomorph /a·/ when suffixed to verb classes B and K, the allomorph /e/ when suffixed to class H, and the allomorph /e·/ when suffixed to classes C, D, and L. The stem formant {a} is optionally followed by two position classes of inflectional suffixes.

Examples of each allomorph are:

/a/: {ʔca·w} {a} /ʔca·wa/ 'to sing'

/a·/: {bay} {a} /baya·/ 'to cauterize'

/e/: {ʔcuq} {a} /ʔcuqe/ 'to help'

/e·/: {huy} {a} /huye·/ 'to save, hoard'

/a/ when followed by inflectional suffixes:

{ʔco·r} {a} {da} /ʔco·rada/ 'I open nuts'

but {ʔco·r} /ʔco·r/ 'to open nuts'

The stem formant {u} marks the imperative or Stem II form of verbs, a freely elicited form, translated as the simple or imperative form of an English verb. It has five morphologically conditioned allomorphs: /u/, /e/, /a/, /h/, and stem vowel ablaut.* The morpheme {u} is marked by stem vowel ablaut for class E, and for the future intentional auxiliary {wIr}. In both cases the vowel involved is one characterized by a morphophonemic variation in quality (‖I‖: /i/ /e/, and ‖U‖: /u/~/o/). In class E the imperative stem is signaled by the presence of the lower quality phonemic variant of the morphophoneme: /e/ if the stem vowel if ‖I‖, /o/ if the stem vowel is ‖U‖. Interestingly enough, this is the

* Stem II forms of monosyllabic shape are lengthened to V· before suffixation.

stem shape which would be phonologically conditioned if the /u/ allomorph of the second stem formant {u} were suffixed. The vowel ablaut marking the imperative stem of the future intentional auxiliary {wIr}, however, is unparalleled in the language, the second stem form being signaled by the presence of /a/. The morpheme {u} has the shape /h/ when suffixed to the two auxiliary verbs of doing {ʔuw} and {ʔiy}. It has the shape /e/ when suffixed to a verb of class L, and the shape /a/ when suffixed to one of class K. It has the shape /u/ when suffixed to members of classes A, B, C, D, F, G, H, I, and J. The morpheme {u} is only suffixed to members of classes F, H, and I if inflectional suffixes are also added. The stem formant {u} may be followed by up to four optional position classes of derivational suffixes, and three position classes of inflectional suffixes. If followed by more than one position class of derivational suffix, the morpheme {u} also obligatorily recurs between each two derivational suffixes. The stem formant {u} never occurs with the verb 'to go' {har}.

Examples of each allomorph are:

Vowel Ablaut:	{ˈcUt} {u}	/ˈcot/	'Undo!'
/h/:	{ʔiw} {u}	[ʔiwh] /ʔih/	'do it (nearby)!'
/e/:	{huy} {u}	/huye/	'save, hoard!'
/a/:	{ˈcin} {u}	/ˈcina/	'defecate!'
/u/:	{ˈca·w} {u}	/ˈca·wu/	'sing!'

/u/ when followed by inflectional suffixes:

	{ˈco·r} {u} {n}	/ˈco·run/	'while opening
	{ˈco·r} {u} {n}	/ˈco·run/	'while opening
but	{ˈco·r}	/ˈco·r/	'open nuts!'

The stem formant {i} marks the nominal or Stem III form of verbs. This form which is only indirectly elicitable, translates as a participle or nominal indicating the completion of action, the product of action, or the instrument or object of an action. This stem is not distinguished in verb classes I, J, K, L, and M. The morpheme {i} has four morphologically conditioned allomorphs: /i/, /e/, /·/, and [V]. It has the shape /i/ when suffixed to members of verb classes A, B, and C, the shape /e/ when suffixed to members of verb class D, the shape /·/ when suffixed to the negative auxiliary /ʔelew/ and the perfective auxiliary {suk}, and the shape of a short vowel identical in quality with that of the final root vowel when suffixed to members of verb classes

E, F, G, and H. The stem formant {i} may be followed by two position classes of inflectional suffixes. When the allomorphs of {i} are /e/, /·/, or [V], it is obligatorily followed by one of the two suffixes marking substantive aspect, {s} or {t}.

Examples of the allomorphs of stem formant {i} are:

/i/:	{ʔca·w} {i}	/ʔca·wi/	'song, singing'
/e/:	{ʔcic} {i} {s}	/ʔcices/	'being sharp pointed, that which is sharp pointed'
/·/:	{suk} {i} {s}	/su·s/	'standing, being, those standing'
[V]:	{ʔcUt} {i} {s}	[ʔcUtVs] /ʔcotos/	'undoing'

The radical complex to which the stem formants are initially suffixed consists maximally of four position classes of morphemes: two optional classes of prefixes, an obligatory class of roots, and one optional class of root-deriving suffixes. The optional prefixes are directional in meaning. The optional suffixes qualify the meaning of the radical as regards plurality or the status of the subject.

The sixteen members of the first position class of prefixes are optional in occurrence, directional in meaning, and mutually exclusive. When affixed directly to roots (except {λ} 'to sit') they are followed by a hyphen juncture, which is not present when they are followed by the second optional position class of prefixes. These prefixes are listed below in alphabetical order, together with their specific meanings.

{nom} 'west'

/nom-wana·/ 'to be in, move west'

{nor} 'south'

/nor-wana·/ 'to be in, move south'

{pat} 'outside'

/pat-ʔkuda/ 'to go outside'

{po·} 'now, new, recently'

/po··-wintʰuna·/ 'to be, become young'

{puy} 'east'

/puy-wana·/ 'to be in, move east'

{se} 'distributively, on all sides, everywhere, with both hands'

/se-ye·ka/ 'to shake clothes, to spread them out'

/se-ʔceca/ 'to stretch something out'

{ser} 'cross-wise, twice, in two directions'

/ser-wanuma·/ 'to move cross-wise'

{tep} 'behind'

/tep-dile/ 'to remain behind, be widowed, left in mourning'

{tu} 'straight ahead, forward or down'

/tu-ʼkuda/ 'to go on ahead'

{way} 'north'

/way-wana·/ 'to be in, move north'

{xun} 'toward, or along'

/xun-wana·/ 'to come closer, approach'

{χal} 'other, apart, separately'

/χal-qolti·na/ 'to talk a different, foreign language'

{χan} 'away, off'

/χan-ʼkuda/ 'to go away, step off'

{yay} 'around, encircling'

/yay-lamirta/ 'to go round and round'

{yel} 'back'

/yelʔol-tʰamuma·/ 'push deer head decoy back up'

{ʔel} 'in, in horizontally, intensively'

/ʔel-ʼtaqa/ 'to spank'

/ʔel-ʼkuda/ 'to step in the house'

The second optional position class has two members which are also mutually exclusive and directional in meaning. They are always followed by a hyphen juncture except when prefixed to the root {λ} 'to sit'. They are:

{ken} 'down, in'

/kenλa·/ 'to sit down'

/wayken-ʔkuda/ 'to enter the door'

/xunken-pana/ 'to get down here'

{ʔol} 'up, above'

/ʔol-saca/ 'to lift up'

/yelʔol-t^{h}amuma·/ 'push deer head decoy back up'

The largest single position class, the only one which is universally obligatory in occurrence, is that of the root. It is open in membership and its members are characterized by having lexical meanings. Roots are typically monosyllabic in shape. Two roots, {λ} 'to sit', and {b} 'to eat' consist of a single consonant. Other roots have the shapes CVC, or CV·C. Roots may be directly followed by the stem formants or one of the optional class of root-deriving suffixes.

Root derivation is accomplished by reduplication and suffixation. There are five root deriving suffixes which constitute a single position class of optional occurrence, and one optional process of root derivation. Both the suffixes (with one exception, {el}) and the reduplication are obligatorily followed by one of the stem formants. The suffix {el} is obligatorily followed only by the stem formant {i}, the stem formants {a} and {u} only occurring with it if followed by inflectional suffixes.

The derivational process of reduplication of the root morpheme marks plurality of an intensive, iterative, distributive, or numerical type, and is correspondingly translated. The reduplication of roots having the shape CVC and CV·C takes the shape CVCCVC. The two single consonant roots {λ} and {b} are never reduplicated.

Examples are:

{bal} 'tell a lie'

/balbala/ 'tell all kinds of stories'

{xi·n} 'sleep'

/xinxina/ 'many to sleep'

{wIr} 'come'

/wirwira-be·m/ 'many are coming'

{har} 'go'

/harhara-be·m/ 'many are going'

{ti·n} 'talk'

/tintin/ 'chat'

{kow} 'hit'

/kowkowa/ '(to) hammer)

The root-deriving suffix {VlVlVh}, the distributive pluralizer, commonly translates 'many separately to...'. It has two phonologically conditioned variants, ⟦VlVh⟧ after /l/, and ⟦VlVlVh⟧ elsewhere. It is suffixed directly to the root and must be followed by a stem formant.

Examples are:

/ʔceweleleha/ 'many to be wide open'

/bo·loloha/ 'to pulverize'

/xi·nililiha/ 'many to sleep separately'

The root-deriving suffix {V·r}, the time/space extended continuative pluralizer, commonly translates as 'to ... repeatedly, to ... continuously.' Long root vowels are shortened before this suffix. It is suffixed directly to the root and must be

followed by a stem formant.

Examples are:

{ˈkUp} 'chop with instrument or tool'

/ˈkopo·ra/ 'to run with tail cut in half'

{ˈkum} 'eat crunchy things intermittently'

/ˈkumu·ra/ 'eat crunchy things continuously'

{ˈpUn} 'leap'

/ˈpono·ra/ 'run'

{ˈtUq} 'spot'

/ˈtoqo·ra/ 'to be spotted all over'

{ku·m} 'water to roar'

/kumu·ra/ 'waterfalls roar'

{te·l} '(to) skin off, scab off'

/tele·ra-hara·/ 'bald headed ones to move'

{ˈci·m} 'to blink, shut lids of eyes'

/ˈcimi·ra/ 'blink fast, repeatedly'

The root-deriving suffix {V·y} is iterative of action or object of the action, and is correspondingly translated. Like the suffix {V·r}, long root vowels are shortened before this suffix. {V·y} is suffixed directly to the root and is obligatorily followed by a stem formant.

Examples are:

{ćUr} 'skin nuts'

/ćoro·ya/ 'many to be skinned'

{te·l} '(to) skin off, scab off'

/tele·ya/ 'many to be bald'

{daq} 'scorch'

/daqa·ya/ many to get burned'

{ćUd} 'be chapped'

/ćodo·ya/ 'many to be chapped'

{ćUb} '(to) peel'

/ćobo·ya/ 'face to peel in many places'

{ćib} 'scrape with knife'

/ćibi·ya/ 'to whittle'

{cIl} 'tear cloth'

/cele·ya/ 'lots of cloth to be torn'

{cIk} 'take a salmon out from baking'

/ceke·ya/ 'to take many salmon out from baking'

The root-deriving suffix {c}, the medio-passive, indicates that the action affects the subject. It is commonly translated by an English transitive. It is added directly to the root and is obligatorily followed by the stem formant allomorphs characterizing class A.

Examples are:

/χan-pumca/ 'to blow something away' (literary form)

/χan-pʰuλca/ 'to blow something away' (colloquial)

/lakca/ 'to embrace'

/mincuna/ 'for a close relative to die'

/tepca/ 'to come to life'

/tu·tuhum limcada/ 'my mother is sick, she got sick on me'

/sukuyum limcada/ 'my dog got sick on me'

/ba·s daqcada/ 'the food got scorched on me'

/tu·tuhum lipcada/ 'my mother is thirsty'

The root-deriving suffix {el} forms stative, intransitive verbs. It is commonly translated 'to be ...'. It is suffixed directly to roots, but is only followed by a stem formant when some other inflectional or derivational suffixes are added.

Examples are:

{min} 'not exist'

/minel/ 'to be dead'

{sil} 'blind'

/silel/ 'to be blind'

{lim} 'ail'

/limel/ 'to be sick'

{ʔcit} 'grip'

/ʔcitel/ 'to be tied tight'

{ʔcib} 'scrape or plane even and smooth with a knife'

/ʔcibel/ 'to be a long cloud in the sky (planed smooth or knife shaped).'

Forms elicited by Dorothy D. Lee in 1930 such as: /ʔiwi·ca mi ʔuwe-bele·s cipi ʔqayumina/ 'It's so unknown, don't travel around at night alone, it's dangerous!' and /ʔiwi·ya/ 'to not know' seem to indicate that there is a privative morpheme *{w} which also occurs in the negative auxiliary /ʔelew/. If this is so, then four optional positional classes of root-derivation must be recognized, rather than one, since /ʔiwi·ya/ presumably consists of the morphemes {ʔi} {w} {V·y} {a}, while /ʔiwi·ca/ would consist of the morphemes {ʔi} {w} {V·y} {c} {a}, and /ʔelew/ would consist of the morphemes {ʔi} {el} {w}. The suffixes {el}, {V·y}, and {c} described above as members of the same position class would then be members of not one but three

separate classes. Since it proved impossible to re-elicit the Lee forms, these classes have not been set up in the present description.

The remaining inflectional and derivational suffixes are added not to the root but to stem forms, that is forms consisting of a radical plus one of the stem formants. These suffixes will therefore be classified according to the stem form of the verb to which they are added. The derivational suffixes capable of being added to stems enable the stem to be treated as a radical, that is to be followed by another stem formant. Cyclical patterns of derivation previously discussed then ensue. This type of derivational suffix may only be added to verb stems II and III. Stem I may only be followed by inflectional suffixes.

There are two optional position classes of inflectional suffixes , containing in all 12 members, which may be added to Stem I forms of verbs to mark categories of person and evidence. The first position class contains 6 members, the evidential suffixes, a suffix of approximation, and a suffix of subordination. The evidential suffixes are at present disappearing from colloquial use, but still survive in the oral literature.

The evidential suffix {nt^{h}ere} indicates that the action described is reported on the basis of non-visual

sensorial perception of hearing, touch, smell, or taste, and is commonly translated, if translated at all, as 'it feels ... to me.' This morpheme is anomalous for several reasons. It is one of two morphemes in the language beginning in a consonant cluster, the other being {sken}; it is also one of two morphemes in which this particular sequence occurs, the other occurrence being in the form /wint^{h}u·h/ 'person'. In addition it is one of two evidentials, the other is {kele}, which have a number of allomorphs and which may be followed by the personal suffixes {da} and {sken}.

The suffix {nt^{h}ere} has four morphologically conditioned allomorphs: /nt^{h}i/ before the first person suffix {da} and the completive suffix {k}, /nt^{h}ere/ before the second person suffix {sken}, /nt^{h}er/ before the interrogative suffix {i·}, and /nt^{h}e·/ elsewhere. Two other suffixes and an auxiliary verb have similarly conditioned allomorphs of similar shapes: the passive suffix {here} which has the shape /hi/ before the first person suffix {da}, /here/ before the second person suffix {sken}, but the shape /heres/ elsewhere; the hearsay evidential {kele} which

has the shape /ki/ before the first person suffix {da}, but the shape /kele/ before the second person suffix {sken}, and the shape /ke·/ elsewhere; and the future intentional auxiliary {wIr} which has the shape /wi/ before the first person suffix {da}, /were/ before the second person suffix {sken}, but /weres/ elsewhere. Suggestive as these similarities are, their incomplete symmetry in shape and their lack of systematic parallelism in positions of occurrence (combinatory possibilities), indicate that they are only to be connected diachronically. The non-visual sensorial evidential is suffixed to Stem I forms of verbs and may optionally be followed by one of five suffixes: the first person {da}, the second person {sken}, the dubitative {m}, the interrogative {i·} (which is added to Stem II), and the completive {k}.

Examples are:

/ʔuna·ntʰeresken/ 'Thus you said (in my hearing)'

/hire·ntʰe· qewel/ 'The house is burning (feel and smell it)'

/pʰoyoq kuya·-bintʰida/ 'I have a headache, I am aching as to the head (i.e., I feel it. Obsolete now)'

/hesta-bintʰeri· net haras-leli/ 'What do you think, should I go?'

/boy ti·n-wintʰeri·/ 'Are they going to talk a lot?'

/pi ˈkupantʰe·/ 'He is chopping wood (I hear the noise or feel chips flying)'

/wirwira-kintʰik/ 'They came some time ago (first hand knowledge)'

/ˈca·wa-wintʰe·m/ 'They/he/she just keep on singing'

/ˈtube·la-bintʰe·/ 'It is fragrant'

The evidential suffix {kele}, indicating that the source of evidence is hearsay, is used largely in the narration of myths, gossip, and the description of the unexperienced. It is commonly translated, if translated at all, as 'I have heard ... to be, ... it is said.' This evidential has three allomorphs similar to those of the non-visual sensorial evidential. It has the shape /ki/ when followed by the first person suffix {da} or the completive suffix {k}, the shape /kele/ when followed by the second person suffix {sken}, and the shape /ke·/ elsewhere. While occurring suffixed to other stem I verb forms, in the oral literature the morpheme {kele} occurs far more frequently suffixed to one of the two auxiliaries, the conditional {kil} and the distant past {kir}, forming constructions in which the sequence of auxiliary plus evidential is postposed as a unit to main verbs of predications. The two sequences /kilake·/ and /kirke·/ then frequently translate and function simply as a past. The suffix {kele} may be followed by one of three

suffixes: the first person {da}, the second person {sken}, and the dubitative {m}. It is rarely followed by the personal suffixes {da} and {sken}, however, and is syntactically equally rarely used with the first or second person subjects, possibly because of semantic restrictions.

Examples are:

/ˈkilepma· kuya-bike·/ 'Frightfully sick you are' (I hear, you are supposed to be)

/ˈca·wa-kirke·m/ 'I guess they must have sung'

/λeyet-kirke·/ 'I found out he got it'

/ʔuni-kilake·/ 'You heard about it' (remote past)

/ʔuni-ke·/ 'That's what I was told'

/kirkida/ 'I must have'

/kirkelesken/ 'You must have (come), I see you did it'

/kirke·/ 'a third person must have come/gotten'

/pi ˈkupake·/ 'He is chopping wood, I hear'

The evidential suffix {re·}, the inferential, indicates that the information being given is inferred from logic applied to circumstantial sensory evidence, or evidence of natural necessity. It is commonly translated, if translated at all, as 'it must be.' The evidential {re·}, unlike the evidentials {nt^{h}ere} and {kele}, may be followed by only a single optional suffix, the dubitative {m}.

Examples are:

/sukere·/ 'must be there (standing)'

/biyare·/ 'must be there (lying)'

/wirare·/ 'must have come'

/hara·re/ 'must have gone'

/suke-bire·/ 'I guess they are (standing)'

/biya-bire·/ 'I guess they are (lying)'

/wira-bire·/ 'They must be coming'

/hara·-bire·/ 'They must be going'

/nicay hara·re· nor/ 'My nephew is gone south' (I infer from seeing specific traces)

/pi ʼkupare·/ 'He's chopping wood' (he and his axe are gone from the cabin, so I infer it)

/biyare·m/ 'This must be the one (lying), I guess'

The evidential suffix {ʔel}, the experiential, indicates that the information being given is deduced from experience and involves the exercise of judgement. It is commonly translated, if translated at all, as 'I think it to be so'. The inferential evidential differs from the other evidentials in that it is never followed by further suffixation.

Examples are:

/buhaʔel/ 'I guess they're sitting home'

/pi ˈkupaʔel/ 'He is chopping wood (He has a job cutting wood, he usually goes everyday between 8 and 5, it is 3 o'clock, and yesterday at 3 o'clock he was chopping wood)'

/calaˑ biyaʔel/ 'I guess that may be good (it was good last time)'

/hoˑn hina-kilaʔel/ 'They should have arrived by now'

/pite biraʔel/ 'My father-in-law must be hungry (because I know he's alone and bedridden)'

The inflectional subordinating suffix {r} indicates that the verb so suffixed is syntactically dependent and semantically anterior in regard to causality or time. It is commonly translated 'because of, of ....' It is optionally followed by one of two morphemes: the subordinating suffix of temporal anteriority {ʔa}, or the subordinating suffix of unexpected simultaneity {ʔtan}. The reflexive possessive pronominal suffix {r} is most certainly historically related.

Examples are:

/ba·r/ 'because of eating ...'

/nis ba··be·sum winer hara· ʔisuk/ 'They left because they saw me eating'

/ʔiwi·yar nis ʔele·le·s mis ʔqayupaqmina/ 'Because it is so unknown I can't come to see you'

/ʔel-tununa·rʔa/ 'After having put it away then ...'

/buharʔtan/ 'while sitting, while remaining, staying ...'

The inflectional suffix of approximation {puke•} indicates unrealized states and frequently translates 'almost.' This suffix is probably historically derived from the independent verb stem /puke•/ 'to be not quite done (cooked), raw, or partly raw.' It is optionally followed by the suffix {da}.

Examples are:

/x̣icuna•puke•da/ 'I almost cut my finger'

/hara•puke•da/ 'I came near going, I almost went'

/q̓oti•sapuke••-be•sken/ 'I see you look as if you would prove to be strong' (literally: strong-like you are I see)

The second and final position class of inflectional suffixes which are optionally added to stem I forms of verbs contains six members; the personal suffixes, the dubitative suffix, the suffix of past repetition, and two subordinating suffixes. Not all six of these co-occur with all the members of the first position class of inflectional suffixes.

The inflectional suffix {da}, the personal suffix of selfness, always translates as first person subject. Apparently, before the two morphemes *{s} and *{ken} coalesced into the second person inflectional suffix {sken}, the suffix {da} distinguished self from non-self. Just as the second person morpheme appears to have developed from a nominal suffix of concession or emphasis following a nominalizing suffix, the first person morpheme may historically be ultimately related to the substantival emphatic and intensifying suffix {da}, as occurring in the form /hida/ 'very.'

Although itself without allomorphs, the suffix {da} frequently conditions two types of allomorphs if the preceding morpheme is one of five auxiliaries or three suffixes. One type involves contraction of a two consonant cluster, and the second type a syncopation with or without compensatory vowel lengthening or vowel ablaut. These alternations are discussed under each of the following affected

auxiliaries and suffixes: {suk}, {wIr}, {kUy}, {bUh}, {bIy}, {here}, {nt^{h}ere}, and {kele}.

Examples are:

/hara·da/ 'I am walking'

/muteda/ 'I hear'

/wineda/ 'I see'

/hure ʔibi·da/ 'I am sewing'

/ṕele harle ba·da/ 'We'll all go'

/ća·wa ʔise·da/ 'I sang recently'

/ća·wa-kirkida/ 'I guess I sang'

/ća·wada/ 'I'm singing, I just finished singing'

/ća·wa-bint^{h}ida/ 'I guess I'm singing'

/ni haras-kuda/ 'I want to go'

/λeyhida/ 'I just got hit'

/hari·l-wida/ 'I'm about to take them'

/hara·puke·da/ 'I came near going, I almost went'

The inflectional suffix {sken}, the second person subject suffix, is commonly translated as "you." Non-canonical in phonemic shape (only one other suffix, {nt^{h}ere}, begins in a consonant cluster) it seems to resemble the combination of two morphemes, the generic aspect {s}, and either the substantive suffix {ken} which emphasixes an individual at the expense of all other individuals which might have been referred to or included in the expectation, or the post posed optative root {ken} which expresses doubt and translates often as "maybe." Both of the latter morphemes with the shape /ken/ may ultimately be related historically, and semantically are possible candidates for second person final inflectional suffixes, being semantically paralleled by a suffix of very high frequency on third person forms, the dubitative {m}, which marks a concession to the personal subject when reporting his behavior and indicates less certainty than when reporting the behavior of the first person. Moreover, another suffix, {ken}, the warning imperative suffix often translated "lest", and used with Stem II, has the allomorph /ken/ only with 2nd persons.

The sequence /sken/ patterns, however, like a single morpheme unrelated to the sequence {s} {ken} in

terms either of possibilities of occurrence or of position class membership. Thus the form {sken} is suffixed only to five auxiliaries and three suffixes: the passive {here}, the hearsay evidential {kele}, the non-visual snesorial evidential {nt^{h}ere}, while the generic aspect suffix {s} is suffixed to the Stem III form of all verbs, but never to the two suffixes {kele} and {nt^{h}ere}. In addition, these suffixes are never followed by stem formants,, while the {s} suffix is always suffixed to a stem formant, the stem formant {i}. The analysis of /sken/ as a single morpheme is further supported by its apparent membership in a single position class. That is, there are only two position classes of inflectional suffixes which are added to Stem I forms of verbs. The evidentials with which the sequence of /sken/ occurs are members of the first position class. With the exception of the sequence /sken/ thay may only be followed by a single morpheme. If the sequence /sken/ is analyzed as two morphemes, a third position class would have to be recognized, which would consist of only one member, a member capable of co-occurring with but a single member of the preceding position class.

Patterns of syntactic agreement also support the analysis of the sequence /sken/ as a single morpheme.

That is, verb forms terminating with /sken/ may only co-occur syntactically with second person pronominal forms, just as verb forms terminating with {da} 'first person' may only co-occur with first person pronominal forms. Most probably, {sken} is historically two morphemes, but has just become synchronically analyzable as one.

The suffix {sken} may only be suffixed to the morphemes {here}, {nt^{h}ere}, and {kele}, as well as to the first stem of the auxiliary verbs {wIr}, {bIy}, {ʔiy}, and {suk}, and may not be followed by further suffixation. Main verbs not inflected for one of the categories marked by the suffixes {here}, {nt^{h}ere}, {kele}, may only be marked for second person syntactically, by postposing or juxtaposing an auxiliary verb form inflected for second person.

The inflectional suffix {m}, the dubitative, expresses doubt or question.* It seems to be functionally and semantically equivalent to the interrogative intonation when added to declarative statements in English. It has two common translations: a declarative statement of some slight doubt, or a weak

* These two functions are formally distinguished with two aspectual attributive auxiliaries {bIy} and {bUh}; see under section 2.2.

interrogative. When suffixed to forms to which the second person suffix {sken} may also be suffixed, it generally translates as a third person declarative of some doubtfulness. When suffixed to forms to which the second person suffix {sken} is never affixed, it generally translates as a second person interrogative, although it may also be translated as a third person declarative of mild doubt. Syntactic co-occurrence with personal pronouns specifies not only number, but the choice between interrogation and a declaration of doubt. There seems to be a tendency, perhaps due to the pressure of English bilingualism to use the dubitative {m} suffix to indicate almost paradigmatic contrast with the first and second person suffixes {da} and {sken}, which are conveniently members of the same position class. Thus, informants generally translate English paradigms "I/we ...," "you ...," "he/she/they ..." by / ....da/, / ....sken/, and / ....m/ respectively, although in a more normal situation {m} clearly implies primarily an element of uncertainty, not person. In view of the internal structural and external functional pressures, were the language to survive in use, the verb might well become inflected for three persons, with {m} marking the third person.

The dubitative suffix {m} is added directly to the stem or to the evidential suffixes {nt^{h}ere}, {kele}, and {re·}. It is never followed by further suffixation.

Examples are:

/ˈca·wam mi/ 'Did you sing, are you singing?'

/ˈca·wam/ 'Did you sing, are you singing?'

/ˈca·wa wiram/ 'Are you going to sing?'

/ˈca·wa-ba·m mi/ 'Do you sometimes sing?'

/ˈca·wa ʔibe·m/ 'They are singing (doubtfully)'

/ˈca·wa kilake·m/ 'I guess they sang long ago (I heard about it)'

/ˈca·wa kenehale-bo·m/ 'They might sing (I guess)'

/ˈca·wa ʔele·m/ 'Someone (they) sang just now (doubtfully), You sang?'

The inflectional suffix {k}, the completive, indicates that the action is, was, or will be performed or finished. When combined with the auxiliaries of aspect, appropriate extensions in meaning ensue. For example, the combination of the durative auxiliary {bUh} with the completive indicates that an action is performed completely during an extent of time and by extension repeatedly, generally, or always. It is therefore most frequently translated as 'always, repeatedly, as a rule, generally, etc.,' or not translated at all. The completive suffix has two phonologically conditioned variants: /ik/ after consonants, and /k/ after vowels. It is suffixed only to five auxiliaries: {bIy}, {bUh}, {wIr},

{kil}, {su}, and to the evidential {nt^{h}ere}. It is suffixed to the stem I form of these auxiliaries, but in one example it appears to be suffixed not to the auxiliary alone, but to the whole construction in which the auxiliary participates, consisting of a main verb, stem I in form, followed by a stem III for the auxiliary {bIy}.

Examples are:

/ʔλo·ma ʔikilak/ 'I myself saw them kill it'

/ba· ʔikilak/ '(I) ate it (distant past)'

/ʔuni ni ʔiye-ba·k/ 'That's the way I do it (always)'

/ʔca·wa-be/sik/ 'You saw them sing a while ago, you know thay can/do sing'

/ʔca·wa-ba·k ni/ 'I sing all the time, sometimes I sing, I sing once in a while'

/ʔcaluma··suk/ 'Always be good!'

/pi ʔca·wit biyak/ 'I'm sure he does sing (I've seen him)'

/ʔca·wit biyak/ 'You sing, I've seen you'

/ʔca·wa-be·sint^{h}ik/ 'I heard them singing some time ago'

/ne·l ʔelew ba·l/ 'We two do not, no we don't'

/ne·let yica· ʔisuk/ 'They named the two of us'

The subordinating inflectional suffix {ʔa}, indicates temporal anteriority, and that the verb so suffixed is syntactically dependent. It is commonly

translated as 'then ..., after having ...' It is suffixed directly to the stem, or after the subordinating inflectional suffix indicating causal anteriority, {r}.

Examples are:

/pat-hokelta?a hara·/ 'After he jumped out he went away, he jumped out and went away'

/ba·?a/ 'while eating ...'

/bo·sta?a/ 'All of a sudden ...'

/?uni?a/ 'And then ...'

/?el-tununa·?a/ 'After they put it away, then ...'

/?el-tununa·r?a/ 'After having put it away, then ...'

The subordinating inflectional suffix {ʔtan} indicates unexpected or contradictory simultaneity of actions or states. It is commonly translated as 'while ..., in spite of ..., anyhow ..., anyway ..., although ...' It is suffixed only to auxiliaries , or following the subordinating inflectional suffix indicating causal anteriority, {r}, and the passive {here}.

Examples are:

/ʔca·wa-weʔtan/ 'anyway, I'll still sing'

/ʔelew-beʔ·tan wine hara· wira ʔibi·da/
'Even if there's nothing to it, I'm going to get it'

/ʔelew-beʔ·tan beme·s/ 'Even though I gaven't got it ...'

/hara· ʔisuk net ba·-bohetʔan/ 'Even though I was eating they left anyway'

/buhetʔan/ 'even while they are sitting ...'

/puba·nʔpurun ba·-hetʔan λeyλeypaq/ 'While they were eating, they threw rocks at me'

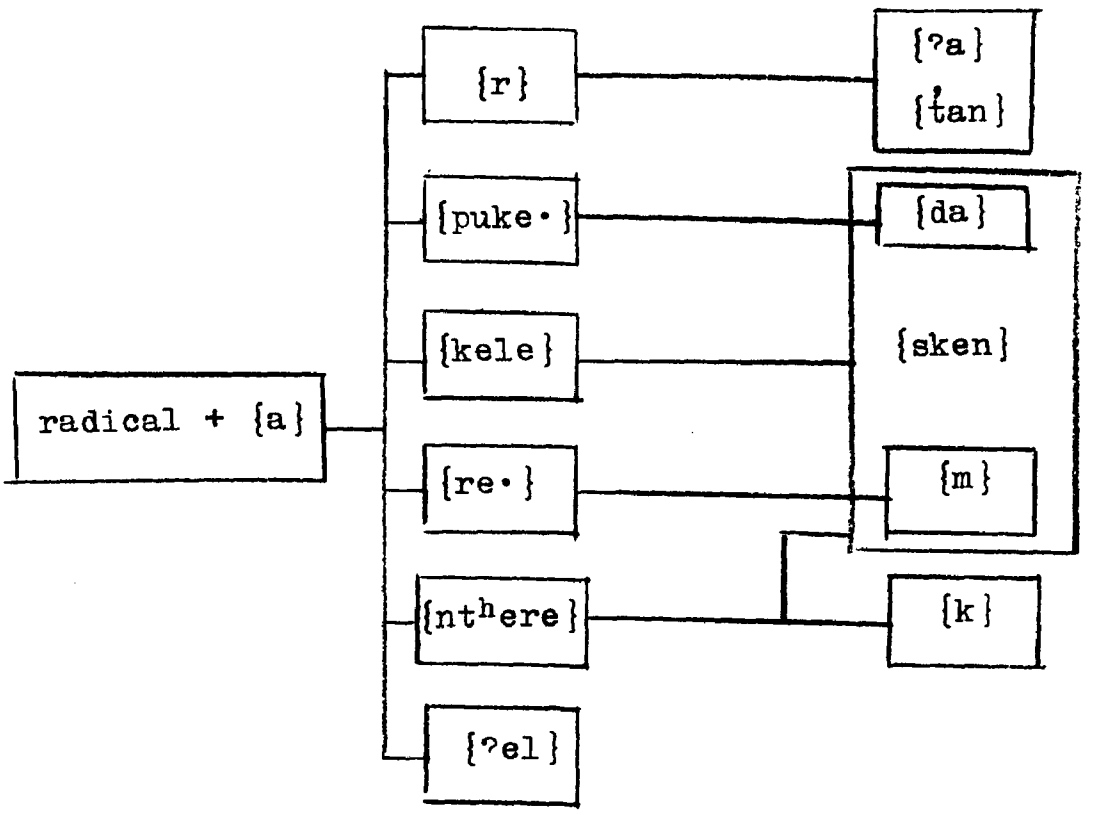
/ʔca·wa-beʔ·tan/ 'while singing ...'

/buhar̀tan/ 'while sitting, while remaining, staying ...'

/hara· ʔisuk, net ʔele·t̀an yi·las koyumina/

'He went in spit$^{e}_{\wedge}$ of my coaxing him to stay'

Chart of Inflectional Position Classes Affixed to Stem I



In terms of suffixational potential, the stem II form of verbs is by far the most complex of the stem forms, both in number of position classes and in number of suffixes affixed. Four position classes of stem-deriving derivational suffixes, comprising in all seven morphemes, and three position classes of inflectional suffixes, comprising a total of thirteen morphemes, are optionally affixed to stem II to mark modal categories. Although no class is of obligatory occurrence, the occurrence of one member of both the second and third position classes of inflectional suffixes is contingent on the occurrence of a member of the preceding class of inflectional suffixes. Each of the four optional position classes of stem-deriving suffixes is obligatorily followed by a stem formant which must be {u} if further stem II suffixation follows.

The first position class of stem-deriving derivational suffixes contains three members which specify the aspect of the overtly or covertly expressed syntactic subject or object of the verb.

The stem-deriving derivational suffix {t}, which is not translated, marks the verb as

having a syntactic subject of particular aspect, whether overtly expressed or not. This suffix has two morphologically conditioned allomorphs: /·t/ if suffixed to a verb of class B, C, D, K, or L, which have long vowel allomorphs of the stem formant {a}, and /t/ elsewhere. It forms verbs which are members of conjugation class J.

In a few instances stems derived for particular subject with this suffix are homphonous with stems inflected for subordination with the suffix {ta}: for example, the form /ba·ta/ means both 'while eating,' and 'to be meaty of nuts/ acorns.'

Examples are:

/ba·ta/ 'to be meaty of nuts'

/ba·tar/ 'because of being meaty'

/yaleqta/ 'to drop something'

/yaleqtu/ 'drop it'

/huyu·ta/ 'reading, to read'

/hulu·ta/ 'to bunch together (of people)'

/hokelta/ 'to jump'

/boloqtuma·/ 'to do gently or softly'

(/boloq/ 'soft, fragile')

The transitivizing stem-deriving derivational suffix {i·l} indicates that the verb has a syntactic object in the particular aspect, which may or may not be overtly expressed. It is frequently translated 'together' or 'with.' It has two phonologically conditioned variants: /wil/ after vowels, and /i·l/ after consonants. It forms verbs that are members of conjugation class F.

Examples are:

/ʔca·wuwil/ 'Sing with them!'

/weri·l/ 'to bring someone'

/wacuwil/ 'to cry with someone (in sympathy)'

/noyi·l/ 'to laugh with someone'

/suki·l/ 'to own or have' (lit: to be standing with particular ones)

/ʔol-hika·yuwil/ 'to stand up with someone'

/cupi·l/ 'to wade with someone'

/bohi·lʔpure/ 'living together'

/xun-pile·wil/ 'all bound up/

/put tupuwilda/ 'I weeded (the garden) with him/her'

/ʔole·lbe·m qewel hari·lenso/ 'I'd like to take them to church'

The transitivizing stem-deriving derivational suffix {m} indicates that the verb has a syntactic object in the generic aspect, which may or may not be overtly expressed. The action of another verb may be interpreted as a generic object. It is frequently translated 'with' or 'while doing something else.' It forms verbs that are members of class M.

Examples are:

/qerumena·/	'to suffer'
/werma/	'to come bringing' (i.e. with something'
/q̓ayuma/	'to carry things with one, to peddle'
/c̓a·wuma/	to sing along while doing something else'
/λ̓olumena·/	'to bandage oneself'
/documa/	'to roast meat'
/dukama/	'to put things away'
/haya·ruma/	'to go round fast'
/keruma/	'to finish'
/kerumeta/	'after having finished'

The second position class of optional stem-deriving suffixes contains a single member, the reflexive {n}, which indicates that the consequences of the verbal action revert to, affect, involve, or are for the sake of the subject. It is commonly translated, if translated at all, by the English reflexive pronouns, or, rarely in idiomatic fashion, by a form referring to a specific extension of the subject such as clothing. It forms verbs which are members of conjugation class K.

Examples are:

/mutna·/ 'to feel oneself'

/χaqcuna·da/ 'I'm hitting myself'

/yoquna·/ 'to wash any part of one's body'

/yoquna/ 'Wash yourself!'

/yoqunapure/ 'Let's wash each other'

/doyuna·/ 'to be tame' (of animals), lit: to give themselves

/doyunama·/ 'to tame,' lit: to make to give themselves

/cinuna··-wen/ 'Shall I help myself, I intend to help myself'

/ʔλolumena·/ 'to bandage oneself, lit: 'to wrap oneself with generic materials'

/ʔel-tununa·/ 'to put things away inside'

/ʔel-tununa·ʔa/ 'After they put them away, then...'

/ʔel-tununa·rʔa/ 'After having put them away, then...'

/se-dokcuna·/ 'They put it here and there inside their clothes,' lit: 'on two sides-stick away objects-benefitting the subject-for the sake of the subject's specific extension, i.e., clothes'

/tisa·na·s/ 'an umbrella,' lit: 'that which is shady to oneself'

The third position class of optional stem-deriving suffixes also contains a single member, the causative suffix {m} which frequently translates as 'make...,' or as an adverbial showing involvement, participation, or manipulation. The causative suffix forms verbs of conjugation class M.

Examples are:

/ba·ma·/ 'to feed,' lit: 'to cause to eat'

/ba·ma·s-koyit/ '(a) hospitable (person)'

/peruma·/ 'to fish with bait,' lit:
'to cause to swallow'

/taqiqma··bint^{h}e·/ 'She made me hurt, I feel it'

/caluma·/ 'to do well, carefully, nicely,'
lit: 'make good'

/caluma· ʔih/ 'Be careful!'

/tepuma·s caluma· ćupuma·da/ 'I make my garden
grow nicely,' lit;.'that which is caused to
be developed-make good-cause to grow (of plants)'

/boloqtuma·/ 'to do softly or gently,' lit:
'to cause to be soft particular subjects'

/ʔel-pokcunama·/ 'to make someone else pin
something on themselves'

/harmen/ 'before going, while going ...'

/harmenso/ 'Before I go, before going'

/ća·wumen/ 'while singing'

/weʔe war se-x̣osunamen/ 'Come to seek good luck!'

/harmenso me·m doyu·t/ 'Give me a drink of
water before you go, i.e., give me a drink of
water since you are forced to go'

/hulmen boy ba/ 'Eat much so as to get fat'

/mayuma·s/ 'the teacher,' lit: 'the one who
causes (them) to follow'

/mayume/ 'You teach them!'

The fourth and last position class of stem-deriving suffixes contains two members, the reciprocal and the personal transitivizer.

The stem-deriving derivational suffix {ˈpur}, the reciprocal, also occurs on pronouns. It indicates that the action takes place between the plural subjects who participate mutually, reciprocally and distributively in the action. It is a unique subclass of the conjugation class H, having the stem forms /ˈpure/ for stem I, /ˈpur/ for stem II, and /ˈpuri/ for stem III.

Examples are:

/manaˈpure/ 'to have war'

/bohi·lˈpure/ 'to live together'

/ʔelew-be·m λikuˈpurmina/ 'peace,' lit: 'no fighting each other now'

/λikuˈpule/ 'Let's all fight (each other)'

/yaluˈpure/ 'to separate'

/me·m nite·rum leweqaˈpure ʔise·da/ 'We talked about the water'

/ʔdepelwilˈpure/ 'Everybody is happy'

/cinuˈpure/ 'to commit adultery'

/cinuˈpuri/ 'having committed adultery'

/yoqunapure/ 'to wash each other'

/xun-topupure/ 'to be all joined together'

/qomihpure/ 'to agree, conclude'

The stem-deriving derivational suffix {paq}, the personal transitivizer, indicates that the verb syntactically has a personal object which may or may not be overtly expressed. It forms verbs which are members of conjugation class F, but which are somewhat defective, occurring in this corpus only followed by three inflectional suffixes: the personal object suffix {·t}, the first person subject suffix {da}, and the nominalizing suffix {s}.

Examples are:

/mi λitiqpaqat/ 'You fix it for me!'

/ʔelewpaq/ 'missing something'

/puba·tpurum ʔihpaq/ 'Do it for them!'

/mi ʔihpaqat/ 'You do it for me!'

/ba·s-ʔilay mis werepaqda/ 'I brought you a little food'

/ti·npaq ʔise·da silelesum/ 'I talked (interpreted) for the blind one'

/ʔiλepaqas/ 'something all decorated, trimmed, ornamented'

/hika·yupaqheres/ 'the one(s) who stood by him/her/them'

The first optional position class of inflectional suffixes contains two members: the passive suffix, and the suffix of warning. The passive suffix is somewhat anomalous in that it is the only stem II inflectional suffix which may be followed by stem I inflectional suffixes.

The inflectional suffix {ken} indicating warning in the sense of English 'lest', is commonly translated 'be careful ... might happen.' It resembles two morphemes of identical shape: the substantive suffix {ken} which emphasizes an individual at the expense of all other individuals who might have been referred to or included in the expectation, and the postposed optative root {ken} which translates as 'maybe.' The differences in function and distribution make it impossible to synchronically identify this suffix with the two aforementioned morphemes or with the second person suffix {sken}, although the limitations on the co-occurrence of {ken} with other stem II inflectional suffixes mark it as anomalous and point to a common historical origin for these three morphemes.

The warning suffix has two morphologically conditioned allomorphs; it has the shape /ke/ when

followed by the hortative {di}, and it has the shape /ken/ elsewhere. It may only be followed by the suffix {di}.

Examples are:

/baλken/ 'Be careful you might menstruate!'

/ˈtukuken/ 'You might get drowned, watch out!'

/balaken/ 'Don't tell a lie!'

/piya ʔihkedi/ 'He might do it himself, don't let him do it! (do it yourself)'

/ˈpode·li koyuken/ 'Don't try to get hurt!'

/ˈpode·luken/ 'Look out you might get hurt!'

The inflectional suffix {here}, the passive, is anomalous for several reasons. Unlike any other inflectional suffixes affixed to stem II forms of verbs, it may be followed by two stem I inflectional suffixes: {da} and {dken}, and one stem III inflectional suffix, {s}. In addition it differs from the other inflectional suffixes affixed to stem II in number and type of allomorphs, which allomorphy more closely resembles in both number and type that of auxiliary verbs and the non-visual sensorial evidential {nt^{h}ere}.

The passive has two phonologically conditioned variants [hI]: /hi/ and /he/ which alternate morphologically with /here/. Preceding the second person subject suffix {sken} and the nominalizing suffix {s}, the passive has the shape /here/; elsewhere it has the shape [hI].

The passive is followed by five suffixes: the first person subject {da}, the second person subject {sken}, the generic aspect suffix {s}, the inevitable future {le}, the hortative {di}.

Examples are:

/λeyhida/ 'I just got hit'

/λeyheresken/ 'You just got hit'

/λeyheres/ 'the one who got hit, he who got hit'

/doyuheres/ 'the one it was given to'

/harma·heres/ 'the one who was made to go'

/hari·lheres/ 'the one who was taken along'

/hari·lheresken/ 'I see you are being taken along'

/hari·lhida/ 'I am/was being taken along'

/doyuheresken/ 'It is being given to you'

/doyuhida/ 'It is being given to me'

/ʔel-ʔiheres/ 'things that have been stored'

/pur winhele-ba·da hima·/ 'I will be seen by him tomorrow'

/wimayun po· ǩacuhedi/ 'May he now be chewed up by the grizzly bear (literary curse)'

/harhele·s/ 'so that they could go' lit: 'so that they could be taken'

/boyun winhida/ 'I am being seen by a lot of them'

The second optional position class of inflectional suffixes affixed to the stem II form of verbs contains four members, two of which indicate anticipation or expectation of a verbal action as yet uninitiated.

The inflectional suffix {le}, the inevitable future, indicates natural and inevitable necessity, futurity, causality, potentiality, and probability which might/can/must be later in the sequence of events. In contrast to the auxiliary verb {wIr}, the future intentional, which often has the same translation, the inevitable future {le} does not describe an intentional or volitional act. It is commonly translated as the future, or 'before ...,' 'so as to,' or 'about to.' Unless a pronoun accompanies it syntactically, {le} is generally translated as third person and is never translated as second. If the person is to be specified morphologically it is necessary to add a postposed auxiliary inflected for person. Historically, the morpheme {le} seems to be the reduced form of a verb root {lIl}, meaning 'to make; to become, to become perforce, to manufacture, to be arranged, placed, or transformed.' The morpheme {le} has two morphologically conditioned allomorphs; it has the shape /le·/ before the generic aspect suffix {s}, and the shape /le/ elsewhere. The morpheme {le} is

followed only by the stem II inflectional morpheme {so}, and stem III inflectional morpheme {s}.

Examples are:

/harle/ /hale/ (allegro) 'Let's go, let's all go'

/ba·le·s ni/ 'I will/might/could/should/would/ought to eat'

/ˈca·wa-hale·s/ 'they could go there to sing; they could go along singing; they could go and sing'

/pite·rum harle-bo·m/ 'all of them will go'

/mite·rum harle-bo·sken/ 'You will all go'

/ˈpele harle-ba·da/ 'We'll all go'

/λikuˈpule/ 'Let's all fight each other'

/xi·naleso/ 'before they went to sleep'

/ˈca·wuleso/ 'before singing'

/har-walele, be·le-ba·da./ 'Go you two, I must/will stay.'

/ˈxonle-bo·m ba·leso./ 'He shall get dry before he eats.'

/tintinpure buha-kilake· xi·naleso./ 'They sat talking before they went to bed' (They went to bed by force of custom; talking beforehand was a matter of momentary preference)

/λitiqle/ 'Let's all fix it, it's going to be made'

/λitiqhele/ 'so that they'll make it'

/po·m honda behetan ni wele·s./ 'Even if it took many years, I would come'

The subordinating inflectional suffix {n} indicates temporal simultaneity, especially of as yet unrealized or potential action, and that the verb so suffixed is syntactically dependent. It commonly translates as 'while,' but is untranslated when appearing with the morpheme {so}. When this morpheme follows a stem II form which has been derived by the causative suffix {m}, it most often translates in the second person, and the sequence /men/ ({m}{u}{n}) has the same force for the second person that {le} has for first and third persons. It has three morphologically conditioned allomorphs. When suffixed

to verbs of conjugation classes B, C, D, K, and L, which have a long vowel allomorph of the stem formant {a}, the morpheme {n} has the shape /·n/; when suffixed to a member of conjugation class E it has the shape /un/; and elsewhere it has the shape /n/. It may only be followed by the subordinating suffix {so}.

Examples are:

/doyu·n/ 'while going'

/were·n/ 'while bringing'

/werun/ 'while coming'

/harmen/ 'before going, while going ...'

/harmenso/ 'before I go, before going ...'

/ča·wumen/ 'while singing ...'

/ba·men ča·wu/ 'sing while you're eating!'

/ba·menso ču·s kop/ 'Before eating, chop me some wood!'

/we?e war se-xosuna·men/ 'Come to seek good luck!'

/ken-wanu tepumen/ 'Open your mouth wide, so that you can get across!'

/harmenso me·m doyu·t/ 'Give me a drink of water before you go!'

/wayken harmenso, yelwinit/ 'Before you go over the brow of the hill, look back at me!'

/hulmen boy ba/ 'Eat much so as to get fat!'

/hima· harmen pomin-pana/ 'Before you leave tomorrow morning, go to bed.' (Go to bed since you must leave)

The inflectional suffix {n}, the first person jussive, commonly translates as 'I'll ..., let me ..., I'd like to ....' It has two phonologically conditioned variants: ʔ·n/ following vowels, and /en/ following consonants, which alternate morphologically with /n/ following the two verbs, the future intentional suxiliary {wIr}, and the verb 'to go,' {har}. The first person jussive may only be followed by {so}.

Examples are:

/han/ 'I'm going to go, let me go'

/wen/ 'I'll come, shall I come'

/ni mikis han/ 'I'll go first'

/hari·lenso/ 'Let me take ..., I'd like to take'

/ca·wu-wen/ 'I'm going to sing'

/λitiqna·nso/ 'I'll make it for myself'

The inflectional suffix {di}, the hortative, is commonly translated as 'may it happen, would that it happen.' The hortative is suffixed directly to the root

or following a member of the first position class of inflectional suffixes. When the hortative is suffixed to the auxiliary {bIy}, the resulting form /be·di/ functions as a negative preverb. This form possibly consists of the morpheme {bIy}, the auxiliary root, plus *w, the privative, and {di}, the hortative, with the same morphophonemic consonant loss and compensatory lengthening often occurring with the negative preverb /ʔelew/.

Examples are:

/hardi/ 'let him go'

/ča·wudi/ 'may he sing'

/witi·l sanihadi po·/ 'May it soon be daylight'

/ʔewin be·di po·/ 'Would that he were here'

/ʔole·las po· ni bedi/ 'Would that I were tall'

/piya ʔihkedi/ 'He might do it himself, don't let him do it (do it yourself)'

/ʔoorudi-bo·/ 'Let him pound him'

/be·di hu·mus war ba·mina/ 'Don't eat any fat'

/pite·rum ʔca·wudi/ 'Let them sing'

/pi ʔca·wudi/ 'Let him/her sing'

/wimayun po· ʔkacuhedi/ 'May he be now chewed up by the grizzly bear!'

The third and final optional position class of inflectional suffixes affixed to stem II forms of verbs contains seven members which indicate negation, exhortation, interrogation, subordination, and the presence of a personal object. None of these morphemes are ever followed by further suffixation.

The inflectional suffix {mina}, the negative, is commonly translated as 'not.' Although the final vowel /a/ is no longer synchronically segmentable, this suffix is evidently related to a verb root {min} 'to not exist,' from which is derived the stative form /minel/ 'to be dead'. While itself a bound morpheme, {mina} is syntactically almost always in unilateral dependence on one of two preverbs: the negative /ʔelew/, or the prohibitive /be·di/. These two preverbs

always occupy the first syntactic position in the verb string while {mina} is always the final morpheme affixed to the last member of the verb string, the verb whose meaning it negates. The suffix {mina} may also be suffixed to the negative preverb itself to form /ʔelewmina/ 'certainly,' i.e., 'don't demur, don't (say) no, don't not!' The negative is always suffixed directly to stem II forms of verbs.

Examples are:

/ʔelewda harmina/ 'I didn't go'

/ʔelew-be·sken harmina/ 'You didn't go'

/ʔelew-be·m harmina/ 'He didn't go'

/ʔelewar xi·namina/ 'not enough sleep'

/ʔelew-be·sken haras-lelit be·mina/ 'I see you're not able to go'

/ʔelewda ča·wi-koyumina/ 'I don't want to sing'

/ʔelewam ča·wi-koyumina/ 'Don't you want to sing?'

/bohmina/ 'Don't stay!'

/ʔelew-wira ʔibewi· ni harmina/ 'Am I not going to go?'

/ʔelew-wira ʔibewi· ni wi·nmina/ 'Am I not going to see them?'

/ʔelew-ʔikilak mi haras-koyumina/ 'You didn't want to go'

/ʔelew-ʔise·da haras-koyumina/ 'No, I don't want to go'

/ʔelew-ʔise·m haras-koyumina/ 'I guess he didn't want to go'

/ʔelew-kilaʔel haras-koyumina/ 'I guess he didn't/doesn't want to go, I judge'

/ʔelew ċuhmina/ 'not gambling, I'm not playing cards, I never gamble, no one is gambling/gambles (no person is specified)'

/ʔelew-be· ċuhmina/ 'He/she/they are not playing cards'

/ʔelewda harmina/ 'I'm not going'

/ʔelew-be·sken haras-koyumina/ 'You don't want to go'

/ʔelew luhemina/ 'It doesn't/didn't/isn't rain(ing)'

/ʔelewbe·m λikuṗurmina/ 'peace' (no one fighting each other now)

/niyo ʔelew-bak hayhaynamina/ 'I don't like that very well'

/ʔelewam harmina/ 'You didn't go?'

/be·di hu·mus war-ba·mina/ 'Don't eat any fat!'

The inflectional suffix {e·}, the first person dual hortative, is commonly translated as 'Let's you and me..., Let's we two ....' It has two phonologically conditioned variants: /we·/ following vowels, and /e·/ following consonants. It is suffixed directly to the stem, and never follows any of the other classes of inflectional suffixes. This morpheme may be historically related in form to the root {wIr} 'to come,' whose imperative has the variant shape /weʔe/, of which /we·/ could be a contraction. In meaning it seems to be related to the future intentional auxiliary {wIr}.

Examples are:

/ba·we·/ 'Let's we two eat'

/ʔuhe·/ 'Let's you and I do it'

/hare·/ 'Let's you and I go'

/yaqunawe·/ 'Let's wash our two selves'

The subordinating inflectional suffix {so} indicates necessary temporal anteriority, and

that the verb so suffixed is syntactically dependent. It is commonly translated as 'before.' It is never suffixed directly to the stem form, but is always preceded by a member of the second position class of inflectional suffixes.

Examples are:

/ƛ̓itiqna·nso/ 'I'll make it for myself'

/c̓a·wu-wenso/ 'I'm going to sing, I want to sing'

/wenso/ 'I'll come'

/haleso/ 'just before going, just before one goes'

/p̓o·qta ʔila·m hari·lenso/ 'Let me take the little girl'

/harmenso/ 'before going'

/si·wi hayuwen harmenso/ 'I'm going to read a little before I go'

/ʔole·lbe·m qewel hari·lenso/ 'I'd like to take them to church'

/xi·naleso/ 'before they went to sleep'

/c̓a·wuleso/ 'before singing'

/wayken harmenso yelwinit/ 'Before you go over the brow of the hill look back at me'

/xonle-bo· ba·leso/ 'He shall get dry, being (perforce) about to eat,' i.e., he shall get dry before he eats.

/tintinpure buha-kilake· xi·naleso/ 'They sat talking before they went to bed (They went to bed by force of custom; talking beforehand was a matter of momentary preference.)'

The inflectional suffix {i·}, the impersonal interrogative, questions the predication. If the utterance is not syntactically marked as to person, the interrogative translates as third person; if the utterance is syntactically marked it may translate any person. It has two phologically conditioned variants: /wi·/ following vowels, and /i·/ following consonants. The interrogative is suffixed only to auxiliaries and evidentials.

Examples are:

/?el-wira ?ibewi· ni harmina/ 'Am I not going to go?'

/nuya ?ibewi·/ 'Is he laughing?'

/peh ?isto· ti·n ?isuki·/ 'What did that person say?'

/suke-bewi·/ 'Is he standing there, do you see him?'

/weri·/ 'Is he/are they coming?'

/waca·nt^{h}eri·/ 'Did she cry, did you hear her?'

/hestit ʔiye-bewi·/ 'What sort of person is she? (you have seen her)'

/heker ʔiye ʔibewi·/ 'Whose is that?'

/hestar pi wira weri·/ 'I wonder why he is coming'

/peh si·wi ʔiye ʔibewi·/ 'What writing is that?'

/hesta kint^{h}eri· net harasleli/ 'How did it sound to you about my going?'

/hesta bint^{h}eri· net haras-leli/ 'What do you think, should I go?'

/boy ti·n wint^{h}eri·/ 'Are they going to talk a lot?'

The inflectional suffix {u·}, the first person interrogative, questions the predication and always translates as a first person interrogative. The co-occurrence of pronouns with this morpheme, as elsewhere with morphemes marking person, syntactically specifies number. The first person interrogative has two phonologically conditioned variants: /wu·/ following vowels and /u·/ following consonants.

Examples are:

/weru·/ 'Shall I come?'

/heke·n-bo·m weri·lu· pʰaqam./ 'From where shall we bring the manzanita wood?'

/tepumewu·/ 'Shall I cross with it?'

/ʔut p̓e·l henuwu·/ 'What shall we two do?'

The subordinating inflectional suffix {ta} indicates temporal anteriority or simultaneity which is conditioned, dependent, or resultant, and that the verb so suffixed is syntactically dependent. It is commonly translated as 'while, during, after, when, as.' It has two phonologically conditioned variants: [Vta] after stems ending in a consonant, such as /silel/ 'to be blind,' and /ta/ after all other stems.

Examples are:

/mineleta haleba·da/ 'I'll go just as he's dying'

/ba·ta/ 'while eating' (homonymous with derived verb stem ba·ta 'to be meaty, of nuts')

/ʔca·wuta haleba·da/ 'I'll go when they start singing'

/ʔca·wa kerumeta haleba·da/ 'I'll go when they finish singing'

The inflectional suffix {·t} indicates that there is a personal object of the verb stem action. When the verb form does not co-occur syntactically with a pronoun or noun object, {·t} commonly translates 'for me, to me;' when there is a pronoun object, the translation of {·t} will agree with it in person. It has two phonologically conditioned variants: /t/ following vowels, and ⟦Vt⟧ following consonants, which alternate morphologically with the shape /·t/ when {·t} is suffixed to members of conjugation classes B, C, D, K, and L which have long vowel allomorphs of the stem formant {a}. The personal object suffix is affixed directly to the stem or following the transitivizer {paq}.

Examples are:

/doyu·t/ 'Give it to me!'

/yaleqtut/ 'Let go of me!'

/mi ʔihpaqat/ 'You do it for me!'

/mi ƛ̓itiqpaqat/ 'You fix it for me!'

/doyu·t put/ 'Give it to him!'

Chart of Optional Inflectional Position

Classes Affixed to Stem II

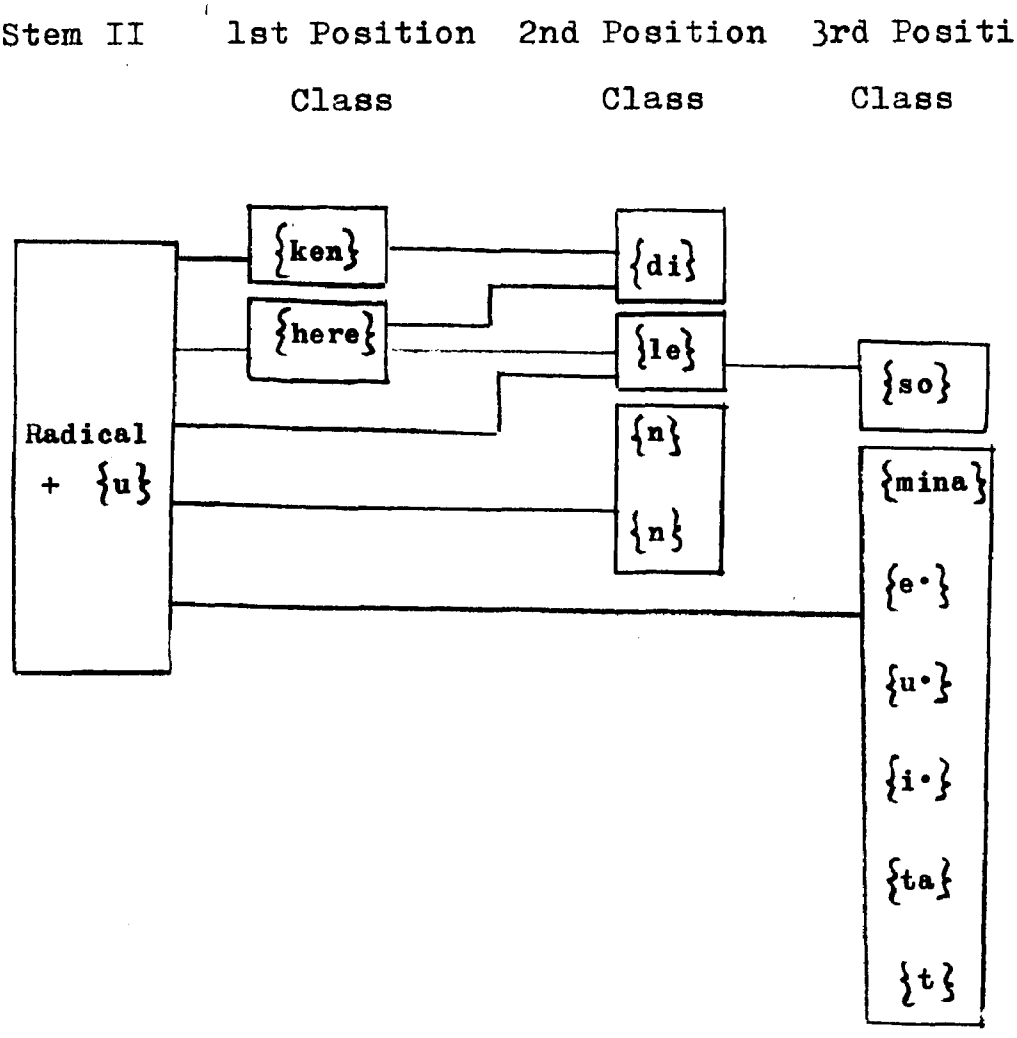
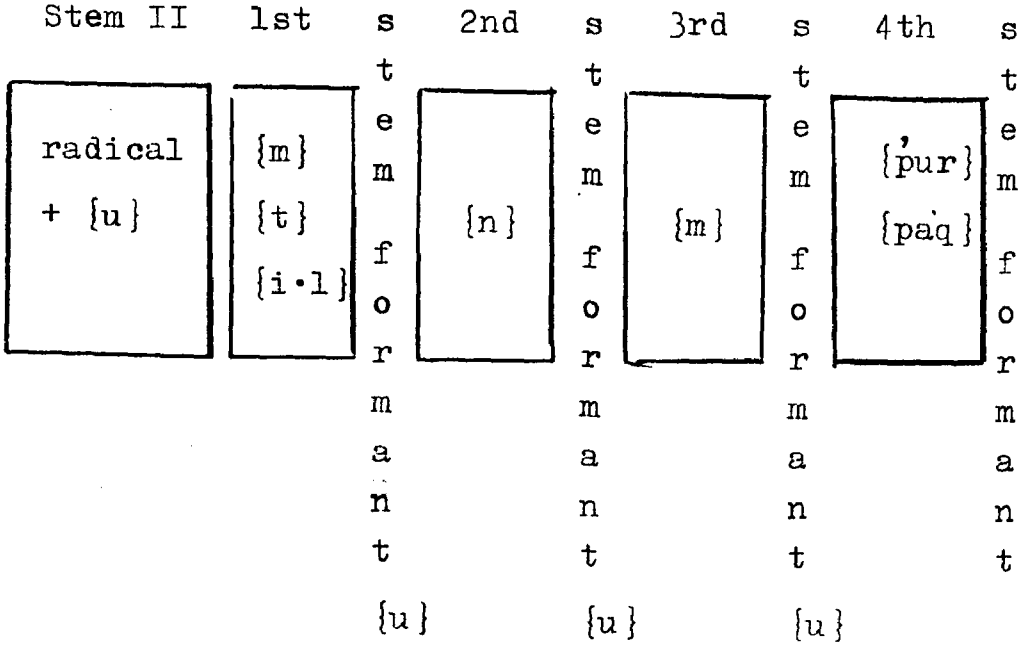


Chart of optional position classes of stem-deriving suffixes affixed to stem II



Only the substantival inflectional suffixes of aspect are affixed to stem III forms of verbs. There is, however, a single optional position class of stem-deriving derivational suffixes which may be affixed to stem II. These derivational suffixes are identical in phonemic shape and related in meaning to allomorphs of the substantival aspect suffixes, but are marked as being synchronically separate morphemes by their distribution and their own allomorphy. This optional position class of stem-deriving derivational suffixes is obligatorily followed by a stem formant, and contains two members which form stative, intransitive verbs.

The stem-deriving derivational suffix {h} derives stative, intransitive verbs from stem III forms of verbs of primarily nominal function. In one instance it also derives a verb from a pronominal root. It is commonly translated as 'to be ..., to be like ...'

Examples are:

/sani/ 'today'

/saniha/ 'to be daylight/daytime'

/pu/ 'that'

/puha/ 'to be yonder'

/sede/ 'coyote'

/sedeha/ 'to be like Coyote (promiscuous, flirtatious)'

/sede·/ 'glide'

/sede·ha/ 'to be gliding, sailing, flying, floating'

/ceri/ 'sand'

/ceriha/ 'to be sandy'

/ˀkuli/ 'penis'

/ˀkuliha/ 'to be slim, thin'

/ˀca·wi/ 'a song'

/ˀca·wiha/ 'to be like a song'

/teλi/ 'belly'

/teλiha/ 'to be pregnant'

/wi·ta/ 'man'

/wi·taha/ 'to mature'

/coki/ 'near'

/cokiha/ 'to approach'

/canal/ 'moon'

/canaλa/ 'to be moon-light'

The stem-deriving derivational suffix {s}, derives stative intransitive verbs with intensification of meaning from stem II forms of

verbs. There is no common translation for this morpheme. The suffix {s} has two morphologically conditioned allomorphs: following verbs of conjugation classes B, C, D, K, and L, which have long vowel allomorphs of the stem formant {a}, it has the shape /·s/; elsewhere it has the shape /s/.

Examples are:

/duya·/ 'to give'

/doyi·sa/ 'to be generous'

/toq/ 'to stand up something long'

/toqesa/ 'to be sterile'

/ʔca·wa/ 'to sing'

/ʔca·wisa/ 'to be chock full of song'

/cun/ 'to urinate'

/cunesa/ 'not to be able to control bladder'

/kur/ 'to be fertile'

/kuresa/ 'to be full of semen'

/ʔqota·/ 'to be strong, hard, or deep'

/ʔqoti·sa/ 'to be full of strength'

2.2. Classification of verbs. Verbs are classified as dependent, independent, or auxiliary on the basis of the coincidence of syntactic function and morphological structure. Any verb may be morphologically marked as syntactically dependent by the suffixation of one of a small number of subordinating morphemes as the final suffix. Verbs not so marked are syntactically independent, i.e., capable in themselves of constituting independent clauses. Auxiliaries are distinguished phonologically by an intervening hyphen juncture when postposed to independent verbs; morphologically by their anomalous stem formation, their unique privilege of occurrence with certain inflectional suffixes, and their inability to occur with the subordinating suffixes forming dependent verbs, to which they may be postposed.*

Verbs are marked as being syntactically dependent by the final position suffixation of

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*Most auxiliaries only occur postposed, but can be elicited as free forms in isolation.

one of the following subordinating suffixes, previously discussed in section 2.1, Verb Structure.

Suffixed to stem I:

{r} causal anteriority

{ʔa} temporal anteriority

{t̓an} contradictory simultaneity

Suffixed to stem II:

{n} potential temporal simultaneity

{so} necessary temporal anteriority

A subclass of verbs which are syntactically intransitive are morphologically distinguished by the suffixation of one of a small number of derivational suffixes. These form stative or adjectival verbs. The suffixes are both root- and stem-deriving.

Root-deriving suffix:

{el}

Stem-deriving suffixes affixed to stem III:

{h}

{s}

Morphological structure and syntactic combinatory possibilities divide the fourteen auxiliaries into two main classes: copulas and

attributive auxiliaries. The copulas are of two types, while the attributive auxiliaries are of four main types with an additional derivative type.

Two types of copulas, which include three auxiliaries, are distinguished by morphological composition and external functioning: independent and dependent. In addition, internal reconstruction seems to indicate that, unlike the attributive auxiliaries, both types of copulas are based on pronominal roots. The first type, that of the independent copulas, comprehends two verbs: {ʔiy} and {ʔuw}, which are distinguished from the other auxiliaries in that they are never post-posed, and may occur as both main verbs and auxiliaries with no change in patterns of stem formation, suffixation potential, or semantic function. They differ from each other in stem allomorphy and in the class of suffixes which can be affixed to them. In terms of inflectional suffixation potential they have complementary privileges of occurrence, {ʔiy} being only followed by the personal inflectional suffixes,

while {ʔuw} is directly followed by the stem II modal suffixes. Only {ʔuw} is followed by a stem-deriving derivational suffix.

The general verb of doing (proximal) or being {ʔiy} commonly translates as 'being, using, or doing (nearby),' or is untranslated when occurring in periphrastic constructions with other auxiliaries. Diachronically, it is probably to be internally reconstructed as based on the demonstrative root *ʔE. (Compare the forms /ʔeh/, /ʔew/ 'this.')

Examples are:

/nis holowi kuyar ʔiye kirkelesken/ 'You were trying to scare me'

/ʔuni ʔel-ʔina·/ 'He put them on his face'

/tum te·da ʔisuk/ 'he blushed'

/pa·lel hara· ʔisuk/ 'Two of them went'

/calit su·s ʔiye ʔibi·da/ 'I was always good'

/calit ʔiye ʔibe·/ 'He was always good'

/pi neto ʔiye ʔibe·/ 'That one is mine'

/ʔel-ʔiye/ 'to put in horizontally'

/ken-ʔiye/ 'to put in vertically downward'

/ʔeh ʔiyeda/ 'I did this just now'

/ʔeh ʔisken/ 'You did this just now'

/ʔewet ʔis-kuyam/ 'Do you want to use this?'

/ʔeh ʔis-kuda/ 'I want to do this'

/mato ˈkeleˈkele ʔiyeda/ 'I used your knife'

/ʔiye bintʰe·/ 'I hear them doing it'

/ne·l ʔiyeda/ 'We did it right now'

/ne·l ʔiye ʔise·da/ 'We did it'

/ne·l ʔiye ʔidi·da/ 'We are the very same two'

The general verb of doing (distal) or being {ʔuw} commonly translates 'to do', or 'be' (in that manner or further away), or is untranslated when occurring in periphrastic constructions with other auxiliaries. Diachronically, it is probably to be internally reconstructed as based on the demonstrative root *ʔu. (Compare the form /ʔuku/ 'that.') The copula {ʔuw} has the stem shapes /ʔuwe/ for stem I, /ʔud/ for stem II, and /ʔus/ for stem III. The stem I form is never followed by further inflectional suffixation. To stem II are suffixed the stem-deriving causative suffix {m} and four stem II inflectional suffixes: the passive {here}, the inevitable

future {le}, the first person dual hortative {e·}, and the negative {mina}. Like the copula {ʔiy}, attributive auxiliaries are suffixed, not post-posed, to two stem forms of the copula {ʔuw}. The aspectual attributive {bIy} is suffixed to the stem I form, while the modal attributive {kUy} is suffixed to stem III.

Examples are:

/ʔuh(h)eres-to·t/ 'the wounded, forbidden one to whom it happened'

/ʔuh(h)eres/ 'that one indicated' (cf. /ʔeh/ 'this one'

/ʔuwe/ 'just that way, anyway'

/ʔuwe ʔiye ʔibe·/ 'They did it anyway'

/ʔuwe ʔis biyak/ 'does it any old way'

/ʔuwe hara· ʔise·da ma·n/ 'I went along anyway'

/ʔuwe cipada ma·n/ 'I hit them anyway'

/ʔuwe bukama/ 'to contradict' (/bukama/ 'to strongly contradict')

/ʔuwe bukama wirada ʔelehetan/ 'They didn't want me to come, but I came against their will'

/ʔuwebele•s/ 'Don't, you shouldn't do that' (weak prohibition)

/ʔuwebele•s mi ʔuhmina/ 'You shouldn't do that'

/ʔuh/ 'You do it'

/ʔuhe•/ 'Let's you and I do it'

/ʔuhle•s 'might do it'

/ʔuhle/ 'Let's all do it'

/ʔuhhida/ 'It was said to me'

/ʔuhheresken/ 'I see it was said toyou'

/ʔuni ʔuhe•/ 'Let's do it that way'

/ʔuhma•/ 'That's the way to do it' (causative with adverbial force)

/be•di ʔuhmina/ 'Don't do that'

The second type of copula, the dependent, comprehends a single auxiliary, the neutral stative verb of being {ʔel}, which marks statements as being known from first hand observation to be true, and therefore is frequently translated 'I see/saw.' It differs from the independent copulas in that it may be post-posed, and never occurs as a main verb, and from both the independent copulas and the other attributive auxiliaries in that it

has a single stem form which is only followed by a single suffix. It has the stem form /ʔele•/ except when suffixed to the nominalized stem III form of one of three aspectual auxiliaries: {bIy}, {bUh}, or {suk}, when it has the shape /ile•/. These appear to be stem I forms, by reason of the quality and length of the vowel and the fact that only a stem I inflectional suffix, the dubitative {m}, may be affixed. Diachronically, it seems likely that {ʔel} is to be internally reconstructed as based on the demonstrative root *ʔE plus the stative root-deriving suffix {el} (previously discussed in Section 2.1.).

Examples are:

/bo•sile•/ '(I saw them) sitting there'

/be•sile•/ '(I saw them) lying there'

/su•sile•/ 'to be standing (visibly)'

/ʔca•wa be•sile•/ 'I see/saw them singing, they are/were singing'

/ʔca•wa be•sile•m/ 'I guess I saw them singing'

/ba•-betan ʔca•wa-be•sile•m/ 'He was singing while eating'

/ča·wa ʔele·/ 'I saw them sing right now, they just now sang'

/bukul ʔol-poyo·ka ʔele·/ 'I see the dust is rising/has risen'

/qewel-to· be·sile·/ 'I saw that there was a house there, there was a house there (I saw)'

/hari·l wira ʔele·/ 'I see they're going to take them'

/nor hara· ʔele·m/ 'Someone's going south'

/nor hara· ʔele·/ 'They just went by going south'

/memin ʔalu·qa ʔele·/ 'There is/was a reflection in the water'

/λa·qum λo·ma ʔele· bohemin soni·n/ 'I seen them kill a rattlesnake with a big rock, recently/right now/immediately past'

The four main types of attributive auxiliaries are aspectual auxiliaries, modal auxiliaries, temporal auxiliaries, and auxiliaries of possibility. They are distinguished from each other on the basis of the co-incidence of syntactic function, morphological structure, phonological

shape, and semantic range. While based on roots from which main verbs are also formed, attributive auxiliaries are themselves never main verbs, but are always syntactically unilaterally dependent on main verbs.

The aspectual auxiliaries are distinguished from the other attributive auxiliaries by their ability to be followed by the personal subject suffixes {da} and {sken}, and to occur as imperatives. The aspectuals are further divided into two subclasses. The first subclass of aspectual auxiliaries has three members based on roots indicating position or location, while the latter class has two members based on roots indicating motion toward or away from the speaker.

The three members of the first subclass, {bIy}, {bUh}, and {suk}, also share a morphophonemic distinction. The disyllabic stem I forms all have a contracted monosyllabic alternant of the shape CV· before the first person subject suffix {da}. If the medial consonant is a semivowel, the vowel of the contracted monosyllabic alternant is the same in quality as that of the first

syllable of the disyllabic stem form. If the medial consonant is not a semivowel, the vowel of the contracted monosyllabic stem alternant is identical in quality with that of the vowel in the second syllable of the disyllabic alternant. In formulaic terms: $C_1V_1yV_2 > C_1V_1\cdot$ while $C_1V_1C^{-y}V_2 > C_1V_2\cdot$.

The stem II and III forms of {bIy} and {bUh} also seem to be the result of a similar contraction. When followed by further suffixation they have the shape CV·, the vowel being of the quality one would expect from the operation of the morphophonemic rules for ‖I‖ and ‖U‖ in an uncontracted stem II form of the shape $C_1V_1C_2u$ or an uncontracted stem III form of the shape $C_1V_1C_2i$. In formulaic terms: $C_1V_1C_2V_2 > C_1V_1\cdot$.

Thus for stem II:

{bIy}{u}:‖bIyu‖:*beyu:/be·/

{bUh}{u}:‖bUhu‖:*bohu:/bo·/

For stem III:

{bIy}{i}{s}:‖bIyis‖:*beyis:/be·s/

{bUh}{i}{s}:‖bUhis‖:*bohis:/bo·s/

In addition, two members {bIy} and {bUh} have an additional stem II form used only for the imperative, and distinguish formally the two

polarities is the range of meaning of the dubitative inflectional suffix {m}. This suffix, which is affixed to stem I forms of verbs, is affixed to both the stem I and stem II forms of the aspect auxiliaries {bIy} and {bUh} with a concomitant semantic distinction. When the dubitative is suffixed to stem I forms it only translates as a second person weak interrogative, while when suffixed to stem II forms it translates as a doubtful or probable statement.

The imperfect aspect attributive auxiliary {bIy} characteristically participates in predications which are generally, reliably, and continuingly true. It is commonly translated by a progressive tense in English. Diachronically, it appears to be internally reconstructed as based on the root {bIy} 'to be in a lying position,' from which main verbs are now formed. The stem I form of the imperfective auxiliary has the contracted shapes /bi·/ before the evidential suffixes, and the shape /biya/ elsewhere. The stem II form has the contracted shape /be/ when it functions as the imperative, and the shape /be·/ elsewhere. The

stem III form is /be·s/. All stem forms only occur suffixed to the copula roots {ʔiy} and {ʔuw} or postposed to main verbs. The stem I inflectional suffixes {nt^{h}ere}, {kele}, and {re·}, are suffixed to the contracted allomorph of stem I, /bi/, while the stem I inflectional suffixes {ʔel}, {m}, and {k} are suffixed to /biya/, and the suffix {da} is, of course, affixed to the contracted allomorph /bi·/.

Examples are:

/ba·-be·ˈtan ˈca·wa beˈsile·m/ 'He was singing while eating'

/suke-bire·/ 'I guess they are (standing)'

/biya-bire·/ 'I guess they are (lying)'

/wira-bire·/ 'They must be coming'

/hara·bire·/ 'They must be going'

/wirwira-bint^{h}ik/ 'I heard them a-coming some time ago'

/pi neto ʔiye ʔibe·/ 'That is mine'

/ba· ʔibi·da/ 'I'm eating'

/ba· ʔibe·sken/ 'You're eating'

/ba· ʔibe·(m)/ 'They're eating'

/pi po·m be·le-bo·m/ 'That ground will always be there'

/calit be·le-bo·sken/ 'You will always be good'

/calit be:le-ba·da/ 'I'll always be good'

/calit biya ?ikilak ni/ 'I used to be good'

/calit su·s ?iye ?ibi·da/ 'I was always good'

/calit ?iye ?ibe·/ 'He is always good'

/ho·n calit ?iye ?ibe·/ 'He always was good'

/bewi·l biyak/ 'They two are always sleeping together'

/ʼca·wa-be·sile·/ 'I saw him singing'

/ʼca·wa ?ibe·wi·/ 'Are they singing?'

/ʼca·wa ?ibiyam/ 'Are you singing?'

/ʼca·wa ?ibe·m/ 'They are singing (doubtfully)'

The durative aspect attributive auxiliary {bUh} emphasizes the duration or extension in time of the action expressed by the predication. It commonly translates in English as 'keep on doing ..., always ..., sometimes..., remain...,' or 'still....' Diachronically, it appears to be internally reconstructed as based on the root {bUh} 'to be in a sitting position, to remain, to reside,' from which main verbs are formed at present. Unlike {bIy}, the durative auxiliary has only contracted stem forms. Stem I has the shape /ba·/, stem II has the shape

/boh/ when functioning as an imperative, but /bo•/ elsewhere, and stem III has the shape /bo•s/. All stem forms only occur postposed. The stem I inflectional suffixes {da}, {k}, and {m} are affixed to stem I, the suffix {m} may also be affixed to stem II, as is the suffix {sken}. The stem I evidential suffixes and the stem II modal suffixes are never affixed to the durative {bUh}; thus it is in nearly complementary distribution with the imperfective auxiliary {bIy}.

Examples are:

/pi po•m be•le-bo•m/ 'That ground will always be there'

/calit be•le-bo•sken/ 'You will always be good'

/calit be•le-ba•da/ 'I'll always be good'

/calit sukle-bo•m 'He'll always be good (probably)'

/ʔelewle-bo•m he•sin claumina/ 'He never will be good'

/cala• kenehale-bo•m/ 'He might get good'

/pur bo•t haras kuda/ 'If they were there I'd go'

/miya ma•n minele'bo•sken/ 'You too shall die, be dead'

/be·le-bo·m/ 'It shall remain'

/mutle-bo·sken/ 'You shall hear it, you can't help it'

/ʼca·wa-ba·m/ 'Do you sometimes sing?'

/ni ʼca·wa-ba·k/ 'I sing once in a while, sometimes I sing'

/ʔuni ni ʔiye-ba·k/ 'That's the way I do it'

The perfective aspect attributive auxiliary {suk} emphasizes the punctual, completed, non-durative nature of the predication. It commonly translates in English as simple past. Diachronically, it seems to be internally reconstructable as based on the root {suk} 'to be in a standing position,' from which main verbs are derived at present. Stem I has the shape /se·ya/ when followed by the dubitative {m}, and the contracted shape /se·/ elsewhere; stem II has the shape /su·/ when followed by the second person subject suffix {sken}, and the shape /suk/ elsewhere; stem III has the shape /su·s/. The stem I form /se/ and the stem II allomorph /su·/ only occur suffixed to the copula root {ʔi} and postposed, while the stem III /su·s/ only occurs postposed. The inflectional suffixes {da} and {m} are affixed to the stem I allomorph /se·/, the dubitative suffix {m} is also suffixed to the stem I allomorph /se·ya/, and the stem II inflectional suffixes {le} and {i·} are affixed to the stem II

allomorph /suk/.

Examples are:

/calit-su·s ʔiye ʔibi·da/ 'I was always good'

/calit sukle-bo·m/ 'He'll always be good'

/ča·wa ʔise·m/ 'Did you sing?'

/ba· ʔise/yam/ 'Did you eat?'

/ba· ʔise·/ 'They ate'

/ba· ʔisuki·/ 'Did they eat?'

/ba·s-kuda ʔise·da/ 'I wanted to eat'

/ba··be·tan ča·wa ʔisuk/ 'He was singing while eating (in past)'

/λo·ma ʔisuk λa·qum bohemin soni·n/ 'She killed a rattlesnake with a big rock recently'

The two members of the second subclass of aspectual auxiliaries, {wIr}, and {har}, are both never suffixed to the copula root {ʔi}.

The future intentional aspect attributive auxiliary {wIr} emphasizes the intentional or volitional nature of an act about to take place. It commonly translates as 'to be about to..., going to....' Diachronically, it appears to be internally reconstructed as derived from a root {wIr} 'to come, to move toward the speaker.' Like the durative and imperfective aspect auxiliaries, {wIr} has a contracted, monsyllabic alternant of stem I, /wi/, which occurs before the

suffixes {da} and {nt^{h}ere}, and a disyllabic alternant /wira/, which occurs elsewhere. The stem II form has the shape /war/ as an imperative, and the shape /wer/ before {mina}, and the shape /were/

elsewhere, while the stem III form has the shape /weres/. Unlike any other verb in the language, this imperative form is morphologically marked for number. The singular imperative is /war/, the dual /walel/, and the plural /wata·rum/. The associated suffixes are all treated under the pronoun; see Section 3.2. All stem forms occur post-posed.

Examples are:

/hari·l-wida/ 'I am about to take them'

/hari·l-weresken/ 'I see you're about to take them'

/hari·l-weres/ 'They're about to take them, the one who's about to take them'

/hari·l-wira ʔele·/ 'I see they're going to take them'

/hari·l-wintʰe·/ 'They just keep on coming'

/hari·l-wintʰik/ 'They were coming some time ago (maybe they didn't arrive)'

The progressive aspect attributive auxiliary {har}, of rare occurrence, emphasizes the progressive and often future nature of an act. It translates as 'while ...-ing,' and 'during ....' Diachronically,

it seems to be internally reconstructed as derived from a root {har} 'to move away from the speaker.' Only a stem I form without further suffixation and a stem III form with {s}, the generic aspect suffix are attested in this corpus: /hara·/.

Examples are:

/wira-hara·/ 'while, during the course of his coming'

/ʔkiye··-haras biyak./ 'He's getting old.'

/ʔciri·ka-haras biyak./ 'He's getting skinny.'

/ni ma·n qati· ʔkiye··-hara· bintʰida/ 'As for me, I go on growing older.'

The modal auxiliaries are distinguished from the other attributive auxiliaries by their inability to be follwed by the second person suffix {sken}. There are three modal auxiliaries: the desiderative, the conditional, and the optative.

The desiderative mode attributive auxiliary {kUy} indicates intention, preference, or desire. It is commonly translated 'want,' or 'try'. Diachronically, it seems to be internally reconstructed as based on the root {kUy} 'to ache, to be sick,

to hurt.' Like the aspectual auxiliaries it has a contracted allomorph of stem I before {da}, /ku/ (which follows the same morphophonemic pattern previously described), and the allomorph /kuya/ elsewhere. The stem II form is /koyu/. The inflectional suffix {m} is affixed to the stem I allomorph /kuya/, while the inflectional suffix {da} is affixed to the contracted form /ku/. All stems are postposed.

Examples are:

/ʔewet ʔis-kuyam/ 'Do you want to use this?'

/ʔeh ʔis-kuda/ 'I want to do this'

/ba·s-kuda/ 'I want to eat'

/ba·s-kuya ʔise·da/ 'wanted to eat'

/ʔoqci-kuda/ 'I feel nauseasted, I want to vomit, I will vomit'

/ʔus-koyu/ 'Try to do it!'

/pur bo·t haras-kuda/ 'If they were there I'd go'

The conditional and optative mode attributive auxiliaries differ from the desiderative. They have no imperatives, and they are defective, being marked for only a single stem form.

The conditional mode attributive auxiliary {kil} frequently translates as 'might, if ..., when ....' It may be diachronically related to a number

of other morphemes of similar shape: the warning inflectional suffix {ken}, the optative auxiliary {keneh} (< *{ken} {i} {h}?), the hearsay evidential {kele}, the nominal suffix {ken}, which translates as 'maybe,' or the nominal suffix {ken} which emphasizes an individual at the expense of all other individuals that might have been included in the expectation. The stem of the conditional auxiliary has a contracted shape /ki/ when followed by the first person subject suffix {da}, and the shape /kila/ elsewhere. These are probably two allomorphs of stem I since they only occur with the stem I inflectional suffixes {kele}, {re·}, {ʔel}, {k}, and {da}. When the conditional auxiliary is followed by the completive suffix {k}, it is obligatorily suffixed itself to the copula root {ʔi}.

Examples are:

/le·nda cala· keneha kilaʔel/ 'He might have been good yesterday.'

/ʔuni ʔisto· kilake·/ 'It was said just like that, it was supposed to have been said just like that'

/bula kila mi koyule·s/ 'If you drank it you'd get sick'

/wirwira kila/ 'when they all get here'

/ʔuni ʔisto· kilake·/ 'It is supposed to have been said like that'

/ba· kilaʔel/ 'They must have eaten'

/hari·l kilake·/ 'I heard they took them'

/tepca kilake·/ 'Once upon a time ...'(lit: 'I heard it may have/supposed to have been transformed that'

/ʔuni kilake·/ 'That's the way it is supposed to have been said'

/ba· kila kuʔise·da/ 'Perhaps because of eating I got sick'

/calit biya ʔikilak ni/ 'I used to be good'

/hari·l kida/ ' I might take them'

The optative mode attributive auxiliary {keneh}, commonly translates as 'might,' or 'may.' It may be diachronically related to one or all of a number of morphemes with similar shapes listed under the discussion of the optative {kil}. The optative {keneh} has a single stem form /keneha/ which may be a stem II form since it is only followed by a single stem II inflectional suffix, the inevitable future {le}.

Examples are:

/cala· kenehale-bo·m/ 'He might get good'

/le·nda cala· keneha kila?el/ 'He might have been good yesterday'

/hara· kenehale·s/ '(They) might go'

/hara· kenehale/ 'What do you say we might all go, we'll all go'

/?uni nis keneha yecule·s/ 'They could/might name me'

/?uni kenehale·s/ 'It could be that way'

/?uni kenehale·sken/ 'You might do it that way, you could if you wanted to'

/ča·wa kenehale·s/ '(They) might sing'

/hari·l kenehale·s/ 'I see you must have taken them'

The single temporal attributive auxiliary {kir} is distinguished from the other attributive auxiliaries by its inability to occur unsuffixed, or to occur with the personal suffixes {da} and {sken} directly suffixed to its stem form, or to occur as an imperative, or to be suffixed to the copula root {?iy}. The temporal auxiliary {kir} marks the past tense, and commonly translates as the simple past in English. It is followed by only three

inflectional suffixes: the evidentials {nt^{h}ere}, {kele}, and {re·}. It has the shape /ki/ when followed by the evidential suffix {nt^{h}ere}, and the shape /kir/ when followed by the other suffixes. These seem to be allomorphs of a stem I since all the suffixes which may be affixed to it are stem I inflectional suffixes.

Examples are:

/ko·m neto ba·s ba·-kire·m/ 'They must have eaten up all my food'

/wuha· ʔimit ʔuyu·la-kirke·/ 'The milk became sour'

/wirwira-kint^{h}e·/ 'They came (I heard them)'

/wirwira-kint^{h}ik/ 'They came some time ago (first hand knowledge)'

/ʼca·wa-kire·/ 'They must have sung'

/ʼca·wa kint^{h}e·m/ 'They sang, I guess, I heard about it'

/x̣al qolin ti·n kint^{h}e·/ 'They spoke a different language'

The attributive auxiliaries of possibility are distinguished from the other auxiliaries by the fact that they are always postposed to stem III forms

of verbs, only occur in a single stem form without allomorphy, never occur with the second person subject suffix {sken}, have no imperative, and are never suffixed to the copula root {ʔiy}.

The attributive auxiliary of possibility {ʔpin} indicates inability and commonly translates as 'to be unable, to have none,' or 'to lack.' It has a single stem form /ʔpina·/ to which may be suffixed only the first person subject suffix {da}.

Examples are:

/ʔca·wule·s-ʔpina·da/	'I am unable to sing'
/tʰewle·s-ʔpina·da/	'I am unable to fly'
/bo·s-ʔpina· pe·l/	'They two are homeless'
/be·le·s-ʔpina·/	'can't stay overnight'
/hurle·s-ʔpina·da/	'I cannot sew'
/ʔca·wi-ʔpina·da/	'I have nothing to sing, I have no song'

The attributive auxiliary of possibility {lel} indicates ability and commonly translates as 'can, so that I can....' It has a single stem form /leli/ to which is suffixed only the particular aspect suffix {t}.

Examples are:

/si·wi caluma ʔλitiqpaqat net haras-leli/
'Fix me out writing so that I can go (write me a note so that I will be able to go)'

/conos-leli/ 'in order to dance'

/ni haras-lelit be·le·s/ 'I ought to go, might be able to go'

/hestule·s ni haras-lelit be·mina/ 'I wonder if I'll be able to go?'

/net ʔča·wi-leli be·le·s/ 'I might be able to sing/

The attributive auxiliary of possibility {top}, the usitative, indicates customary predications, and is commonly translated as '... used to ....' It has a single stem form /topi/ to which is suffixed only the particular aspect suffix {t}.

Examples are:

/ʔλo·mi-topi/ 'used to killing/murdering'

/pi kenλa·s-topi be·m/ 'That's a chair,' (lit: 'that is used for sitting')

/be·s-topi/ 'bed', (lit: nominalized form of 'to lie down --usually')

Two preverbs, the prohibitive /be·di/ and the negative /ʔelew/, are distinguished on the basis of their syntactic pattern. Morphologically, they seem to be subtypes of auxiliaries, /be·di/ being possibly reconstructed as the contracted stem II form of the imperfective a pect attributive auxiliary {bIy} plus the privative *w with the hortative suffix {di}, and /ʔelew/ possibly being the stem form of the neutral stative copula {ʔel} plus the privative suffix *w.

While /be·di/ appears only in this form, /ʔelew/ has two stem forms to which are affixed the inflectional suffixes {da}, {m}, {s}, and {here}. Stem I has two allomorphic shapes: /ʔelewa/ before the dubitative {m} and /ʔelew/ elsewhere. Stem II has the contracted shape /ʔele·s/.

Examples are:

/ʔelewda haras koyumina/ 'I don't want to go'

/ʔelewam haras koyumina/ 'You don't want to go'

/ʔelew-be·m haras koyumina/ 'They don't want to go'

/ʔele·s-biyak harmina/ 'He never does go'

/ʔelew-be·sken hara·-wermina/ 'I was not supposed to go'

/ʔelew-war/ 'Don't venture!'

/ʔelewle-bo·m he·sin calumina/ 'He never will be good'

/ʔelewhetan harma·s koyumina hara· ʔisuk/ 'He went away in spite of me'

3. Substantive. Substantives as a group differ from verbs in demonstrating case, number, and aspectual categories. Internal structural differences divide them into two types: those formed directly from roots, and those based on forms of complex derivation (radicals) or stems. Inflectional differences divide them into two classes: noun and pronoun. Nouns are inflected for three morphological cases, two aspects, occasionally for diminutive, or plural, and can be followed by postclitics, whereas pronouns are marked for three persons, three numbers, three cases, and may be optionally followed by a small class of suffixes.

3.1. Noun. The sequences of morphemes to which the nominal inflectional suffixes are added constitutes the noun theme. The noun theme consists of two elements: an optionally final position class of thematic aspect suffixes and a stem. The stem position may be filled by a verb stem, most frequently stem III, a radical, or a root. Like verbs, nouns are divided into

classes depending on the number of themes they show and the allomorphy of each thematic suffix. The eighteen classes of nouns are charted below, followed by examples of each class.

CHART OF NOUN CLASSES

Class	Particular Aspect {t}	{t} + Case Suffixes	Generic Aspect {s}	{s} + Case Suffixes
(Vowel Stems)				
A	/t/	___	___	___
B	/t/	___	/t/	/t/
C	/t/	___	/s/	/s/
D	/t/	___	/·/	/·/
E	/t/	___	/w/	/w/
F	/t/	___	___	/w/
G	/h/	/h/	/m/	/m/
H	/h/	*	/n/	/n/
I	/h/	*	/w/	/w/
J	/h/	/h/	/y/	/y/
K	/h/	*	/·/	/y/
L	*	___	/s/	/s/
M	*	/·/	/s/	/s/
(Consonant Stems)				
N	*	*	___	___
O	/h/	___	___	___
P	/h/	/h/	___	___
Q	/·/	/·/	___	___
R	/t/	___	/m/	/m/

___ Aspect is unmarked in this position.

* No attested forms.

Examples are:

Class	Particular Aspect Theme	Generic Aspect Theme	Gloss
A	/t^{h}akit/ ~ /t^{h}aki/	/t^{h}aki/	'hat'
B	/sedet/ ~ /sede/	/sedet/	'coyote'
C	/tulcuheret/ ~ /tulcuhere/	/tulcuheres/	'The one it is taboo to touch, the sun god Tulcuheres, a myth hero'
D	/tunet/ ~ /tune/	/tune·/	'leader/older'
E	/sulat/ ~ /sula/	/sulaw/	'trout'
F	/sutut/ ~ /sutu/	/sutu/ /sutuw/	'tail'
G	/ʼkoloh/	/ʼkolom/	'basket'
H	/soh/	/son/	'stone'
I	/ʔi·h/	/ʔi·w/	'acorn'
J	/ʼkahah/	/ʼkahay/	'fingernail'
K	/siwih/	/siwi·/ ~ /siwiy/	'testicles'
L	* ~ /semelhe·na/	/semelhe·nas/	'ring'

M	* /ticele·/	/ticeles/	'ground squirrel'
N	*	/lasik/	'bag'
O	/ˀciλ/ /ˀcil/	/ˀcil/	'bear'
P	/sileλ/	/silel/	'blind person'
Q	/la·h/	/lah/	'older sister'
R	/ˀkete·t/	/ˀkete·m/	'one'

The two mutually exclusive inflectional thematic suffixes of aspect mark the noun as of particular or generic aspect. Only one class of nouns, Class N, includes members which appear unmarked for aspect distinction. Four other classes, A, O, P, and Q, have members which are only marked for one aspect, the particular. The members of all other classes are distinguished for both aspects.

The particular aspect specifies a live, animate, or whole individual, a group considered as a unit contrasting with another mass, or an action which is punctual rather than durative; in short, a particular individuated from the mass or genos. The generic defines a mass in general,

a group, a plurality, or simply an unspecified, not particularized, individual, class, or genos. Thus nouns referring to particular people, proper names, live animals, personified entities, and paired body parts when prefixed with {ʔcan} 'one side, half' occur in the particular aspect. Nouns referring to manufactured things, masses such as fire, wood, water, pus, and smoke, geographical terms such as creek, flat valley, road, trail, and land, calendar units, and body parts except the heart occur in the generic aspect. Nouns based on verb stem III often translate as the action or material in the generic, /λahi/ 'doctoring', /t^{h}uli/ 'swimming', /waci/ 'weeping', but as the actor in the particular, /λalit/ 'doctor', /t^{h}ulit/ 'otter', /wacit/ 'the one who is crying'.

Some substantives occur in only one aspectual category, but may be potentially extended to the other aspect. For example, particular people typically occur in the particular, but may also be marked for the generic, just as in English, proper names generally occur without articles but may be particularized by the use of 'the' as

in 'the Toms I've known....'

The generic and particular aspects of substantives have varying translations in English which seem most often to involve animate/inanimate, singular/plural distinctions. Since the translation rarely accurately expresses the aspectual contrast, the range of meanings expressed by aspectual distinctions is illustrated by a few examples.

The Stem	Signifies in the Particular Aspect	Signifies in the Generic Aspect
/tu/	eye	face
/mȧ/	toe	foot
/se/	finger, hand	hand(s)
/ʼkaha/	the quick of a nail, or a single nail	fingernail(s)
/ʼλal/	mussel	shell
/nur/	a live salmon	dead fish considered as food/flesh
/nop/	a live deer	venison
/sede/	Coyote, the hero in myths as personified	coyote(s), as species

/ci·r/	a live suckerfish, or a specific spirit	fish, number not specified, as a mass, e.g., for food, meat
/t^huli/	an otter or a particular swimmer	swimming (gerund), swimmer(s)

The inflectional thematic suffix of particular aspect {t} has three morphologically conditioned allomorphs: /t/, /h/, and /·/. It has the shape /t/ when affixed to members of noun declension classes A, B, A, D, E, and F; /h/ when affixed to members of classes G, H, I, J, K, O, and P; and /·/ when affixed to members of classes M and Q. The particular aspect suffix does not occur on members of classes A, B, C, D, E, F, L, and O if inflectional case suffixes follow·

Examples of the allomorphs of {t} are:

/t/ as in Class B:	/sedet/	'Coyote' subject, but
	/sedem/	'Coyote' object
/ẖ/ as in Class G:	/ǩoloh/	'basket' subject
	/ǩolohum/	'basket' object
/·/ as in Class Q:	/la·h/	'older sister' subject
	/la·hum/	'older sister' object
/h/ as in Class O:	/čiλ/	'bear' subject, but
	/čilum/	'bear' object

The inflectional thematic suffix of generic aspect {s} has seven morphologically conditioned allomorphs: /s/, /t/, /w/, /y/, /m/, /n/, and /·/. It has the shape /s/ when affixed to members of classes C, L, and M; /t/ when affixed to members of class B; /w/ when affixed to members of classes E, F, and I; /y/ when affixed to members of classes J and K; /m/ when affixed to members of class G; /n/ when affixed to members of class H; and /·/ when affixed to members of classes D and J. The allomorphs /y/ and /w/ only occur on members of classes K and F respectively if case inflectional suffixes follow. The allomorph /·/ only occurs on members of class J if inflectional suffixes do not follow.

Examples of the allomorphs of {s} are:

/s/ as in class C:	/tulcuheres/	'the one it is taboo to touch' subject
	/tulcuheresum/	'the one it is taboo to touch' object
/t/ as in class B:	/sedet/	'coyote(s) subject
	/sedetum/	'coyote(s) object

/w/ as in class E:	/sulaw/	'trout' subjcet
	/sulawin/	'trout' locative
/w/ as in class F:	/sutu/	'tail(s)' subject
	/sutuwin/	'tail(s)' locative
/y/ as in class J:	/ʼkahay/	'fingernail(s)' subject
	/ʼkahayum/	'fingernail(s)' object
/y/ as in class K:	/siwi•/	'testicles' subject
	/siwiyum/	'testicles' object
/m/ as in class G:	/ʼkolom/	'basket(s)' subject
	/ʼkolomum/	'basket(s)' object
/n/ as in class H:	/son/	'stone(s)' subject
	/sonum/	'stone(s)' object
/•/ as in class D:	/tune•/	'front' subject
	/tune•n/	'in front' locative
/•/ as in class K:	/siwi•/	'testicles' subject
	/siwiyum/	'testicles' object

The three mutually exclusive final position inflectional suffixes of case morphologically mark several syntactic relations: object, possessor, agent, instrument, and location. Members of all classes are not attested occurring in all three cases in both aspects, although some are. Whether this is a factor of class membership, the moribund

state of the language, or the difficulties in eliciting categories which are only indirectly translatable into English, is at present impossible to determine. Nouns unmarked for case, that is, marked only for aspect, function syntactically as subjects. Nouns inflected for particular aspect function as subjects of active and medio-passive verbs. Nouns inflected for generic aspect also function as subjects of active and medio-passive verbs, and as noun attributives.

The inflectional suffix {um}, the object case, marks nouns and phrases as objects of transitive and medio-passive verbs. This suffix has two phonologically conditioned variants: /um/ following consonants, and /m/ following vowels, which alternate morphologically with /s/ when affixed directly to the first and second person pronominal roots {ni} and {mi}, and /t/ when affixed to inalienably possessed nouns, to /pu/, an allomorph of the third person pronominal root {pi}, and when affixed to /ʔewe/, an allomorph of {ʔe}, the third person pronominal root.

Examples are:

/sedem/ 'Coyote' particular object

/sedetum/ 'coyote(s)' generic object

/ˈcuruˈcurum/ 'a brown cricket' particular object

/ˈcuruˈcurutum/ 'brown cricket(s)' generic object

/sulehum/ 'water oak acorn' particular object

/suleyum/ 'water oak acorn(s)' generic object

/nis/ 'me'

/mis/ 'you'

/put/ 'him'

/ʔewet/ 'this one'

/net lehet/ 'my younger brother (referential)' inalienable object

/harasum/ 'while it is going,' lit: 'the going' generic object

/nis ba·-be·sum winer hara· /isuk./ 'They left me because/while they saw me eating,' lit: 'They left because of seeing me eating

The inflectional suffix {un}, the genitive case, marks nouns as possessors and as agents (subjects) of passive verbs. This suffix has two phonologically conditioned variants: /un/ following consonants, and /n/ following vowels.

Examples are:

/seden/ 'Coyote's, by Coyote' particular genitive

/sedetun/ 'coyote(s)'s, by the coyote(s) generic genitive

/'curu'curun/ 'a brown cricket's, by the brown cricket' particular genitive

/'curu'curutun/ 'brown cricket(s)'s, by the brown crickets' generic genitive

/sulehun/ 'of/by the water oak acorn' particular genitive

/suleyun/ 'of/by the water oak acorn(s)' generic genitive

/wimayun po• ʼkacuhedi./ 'May he now be chewed up by the grizzly bear!' (grizzly bear generic genitive /wimayun/)

/boyun winhida./ 'I am being seen by a lot of them.'

The inflectional suffix {in}, the locative case, marks nouns for spatial or temporal location, instrumentality, and attribution. It has two phonologically conditioned variants: /in/ after consonants and /•n/ after vowels and /n/ after long vowels.

Examples are:

/tʰaki•n/ 'in, on the hat'

/la•hun ʼqedewin buha xilit/ 'The fly sat on the older sister's arm'

/ʼqedewin λeyhida./ 'I was hit by the arm'

/ba•s-bo•sin net, nis λiya./ 'While/because I was eating, they threw rocks at me,' lit., 'For my eating, (they) threw (rocks) (at) me'

/minelesin/ 'after dying ...'

/xilit buha ʼkahayin./ 'The fly sat on the fingernail' (generic locative)

/xilit dile ʼkahahin./ 'The fly alighted on the fingernail' (particular locative)

/heke•n/ 'whereat'

Two additional inflectional case suffixes are distinguished for inalienably possessed nouns and pronouns: the instrumental and the dependent possessive.

The inflectional case suffix {r}, the instrumental, morphologically distinguishes the syntactic function of instrument from that of possession marked by the genitive case suffix {un}. The genitive marks both functions when occurring with alienably possessed nouns. The instrumental {r} has two phonologically conditioned variants: ⟦Vr⟧ when affixed to monosyllabic stems ending in /h/, and /r/ elsewhere. When affixed to stems ending in a consonant, excepting monosyllabic stems ending in /h/, it replaces the consonant. They alternate morphologically with /i•n/ when {r} is affixed to /ʔew/, an allomorph of the third person proximal pronoun {ʔe}.

Examples are:

/puler/ 'by his younger brother'

/pulahar/ 'by his older sister'

/pune·r/ 'by his mother'

/ner/ 'by me'

/mar/ 'by you'

/pir/ 'by him'

The inflectional case suffix {t}, the possessive, distinguishes in the pronoun the syntactic function of possession from that of instrumentality marked by the instrumental suffix {r}. It has two morphologically conditioned alternants: /t/ affixed to the first person exclusive pronominal root {ni}, and the second person pronominal root {mi}; /r/ when affixed to the third person pronominal root {pi} and the third person proximal pronominal root {ʔe}.

Examples are:

/net/ 'my'

/neto/ 'mine'

/mat/ 'your'

/mato/ 'yours/

/pur/ 'his, hers'

/ʔewer/ 'this one's'

3.2. Classification of Nouns. There are three classes: alienably possessed, inalienably possessed, and non-possessed. Alienably possessed nouns are optionally preceded by possessive pronouns, or by a single prefix {ʔcan} 'half, one side;' are inflected for two aspects; are inflected for three cases: object, genitive, and locative; may be syntactically modified by the diminutive and pejorative, as well as a few clitics such as the disjunctive. Inalienably possessed nouns are always preceded by possessive pronouns, or a single prefix, the vocative {ye}. They are never marked for aspect, but function as though inflected for the particular and may or may not have an alienably possessed counterpart functioning as a generic. Inalienably possessed nouns are inflected for three cases: an object case like the alienably possessed noun, a possessive case, and an instrumental case. Both possessive and instrumental functions are marked by a single case, the genitive, for alienably possessed nouns. Inalienably possessed nouns, like alienably possessed nouns, may be syntactically modified by the diminutive and pejorative, as well as by a few clitics.

Non-possessed nouns never occur with possessive pronouns or with prefixes, are maximally inflected for two aspects and three cases, but are, in general, not inflected for all cases in both aspects, and are never syntactically modified by the diminutive, pejorative, or by clitics.

The class of alienably possessed nouns is open in membership and constitutes the major type of noun in Wintu, both in terms of the number of forms, and the number of declension classes. It has already been discussed in Section 3.1.

The class of inalienably possessed nouns is closed in membership, including only ten members, all of which are kinship terms. The inalienably possessed nouns are characterized by having the allomorph /t/ of the object case inflectional suffix {um} in addition to the distinctions mentioned above. The genitive case inflectional suffix {un} when affixed to this class of nouns, only marks the syntactic function of possession; the instrumental case suffix {r}, which only occurs with inalienably possessed nouns and pronouns, marks instrumentality.

The class of non-possessed nouns is closed in membership, containing 28 members. Non-possessed nouns are of two types: dependent and independent.

Three dependent nonpossessed nouns are clitics and have disjunctive and adjectival functions, while fourteen are compounded to substantive stems, stustantive themes, or substantives inflected for case, and have adjectival function.

The eleven independent non-possessed nouns occur as full words and function as demonstratives, interrogatives, and classifiers of quantity. Although inflected maximally for both case and aspect, the aspect and case allomorphy is so anomalous that no attempt has been made to establish subclasses of non-possessed nouns, paradigms being given instead for each form. In the following paradigms, non-attested forms are marked by an asterisk.

Dependent non-possessed nouns: clitics

The disjunctive postclitic {to·}

	Particular	Generic
Subject	to·t	*
Object	to·	to·num
Genitive	*	to·num
Locative	to·n	to·nin

The diminutive postclitic {ʔila}

	Particular	Generic
Subject	ʔilah	ʔilay
Object	ʔila·m	*
Locative	ʔila·n	*

The pejorative postclitic /ʔisto·/

Subject	ʔisto·t	*
Object	*	ʔisto·num
Genitive	ʔisto·n	ʔisto·nun
Locative	ʔisto·nin	*

Dependent non-possessed nouns: compounded to other substantives

The intensive diminutive {ʔina}

Unmarked ʔina

The referential {qat} 'as for ...'

Subject	qat	qati·
Object	*	qati·m

The privative {ʼpe} 'without'

Subject	ʼpeh	ʼpeni
Object	ʼpenum	ʼpenim
Locative	*	ʼpeni·n

The exclusive {ʼte} 'only'

Subject	ʼtet	ʼte

{ho} 'only, just'

Subject	hot	hom
Genitive	hon	*

{λome} 'exactly, middle'

Subject	*	λomes
Object	λome·m	*
Genitive	λome·n	*

The optative {ke} 'maybe'

Subject	ket	ken

{me} 'own,kind, variety'

Subject	met	men

The indefinite {ʼλuqa} 'ever'

Subject	*	ʼλuqas
Object	ʼλuqa·m	*
Genitive	ʼλuqa·n	*

The precedential {ʼki} 'first'

Subject	ʼkis	*

{ʼta·} 'beside, bottom'

Subject	ʼta·h	*
Object	*	*
Locative	ʼta·n	ʼta·hin

The emphatic possessive {tun} 'their own'

Genitive	*	tun

(Compounded only with possessive pronominal forms.)

The reflexive {ʼpur} 'each other'

Subject	ʼpurut	ʼpurum
Genitive	ʼpurun	*

(Compounded only with plural pronominal forms.)

Animate pluralizer {wi}

(only occurs with ʔila)

Independent non-possessed nouns (including all numerals and the following eleven forms):

The interrogative /heke/

Subject	heket 'who'	heke 'where'
Object	hekem 'whom'	*
Genitive	*	heketun 'whose'
Instrumental	heker 'by whom'	*
Locative	*	heke·n 'where at'

The classifier {ko·} 'all'

Subject	ko·t 'everybody'	ko·m 'everything'
Genitive	ko·n 'of all'	*
Locative	*	ko·min 'all the time'

The classifier /ʔusa/ 'some'

Subject	ʔusat	ʔusa
Object	ʔusam	*
Genitive	ʔusan	*

The classifier of kind /ʔoqti/ 'identical, the same kind of'

Subject	ʔoqtit	ʔoqti
Locative	ʔoqti·n	*

The interrogative classifier of kind /henoqti/ 'what kind of, what identity'

Subject	henoqtit	henoqti
Locative	henoqti·n	*

The demonstrative /ʔuqa·/ 'identical'

Unmarked ʔuqa· 'that very one'

The interrogative /pe·/ 'what'

Subject	pe·t 'what'	pe·h 'what'

The interrogative /hisa·/ 'some, how many'

Subject	hisa·t	*
Object	hisa·m	*
Genitive	hisa·n	*

The interrogative /hest/ 'how'

	(Stem I)	(Stem III)
Subject	hesta 'how'	hesti 'which, what sort of'
Locative	hesti·n 'once in a while, some other time	*

The interrogative /he·s/ 'when'

Locative	he·sin 'when'

The demonstrative {ʔuk} 'yonder'

	(Stem I)	(Stem II)	Generic (Stem III)
Subject	ʔuka· 'then, there'	ʔuku 'that, over there'	*
Instrumental	*	*	ʔuki·n 'with that'
Locative	*	*	ʔukin 'at that spot'

3.2. Pronoun. Two position classes of inflectional suffixes are affixed to pronominal roots to form pronouns which maximally distinguish three numbers: singular, dual, and plural; six cases: subject, object, dependent possessive, independent possessive, instrumental, and locative; and five persons: first person exclusive, first person inclusive, second person, third person, third person proximal; and in one case two aspects: particular and generic. From dual and plural pronominal forms stems are formed which inflect for aspect and case like the alienably possessed nouns. The pronominal forms, however, are distinguished as a separate class by the unique shape of the aspect and case suffix allomorp hy. From singular, dual, and plural forms verbs are derived which are a member of conjugation class N. Summary charts of all pronominal forms are to be found at the end of this section.

There are five pronominal roots, all but two of which show allomorphy, the allomorphy being partially parallel.

The first person exclusive pronominal root {ni} indicates that the person addressed is

excluded. It has three morphologically conditioned allomorphs. The root {ni} has the shape /ni/ when followed by /te/, an allomorph of the pronominal plural suffix {te}, /s/, an allomorph of the object case suffix {um}, or when not followed by further suffixation. It has the shape /ne/ when followed by /t/, an allomorph of the pronominal possessive case suffix {t}, /r/, an allomorph of the instrumental case suffix {r}, /·l/, an allomorph of the pronominal dual suffix {·l}, or /le/, an allomorph of the pronominal plural suffix {te}. It has the shape /niy/ when followed by the emphatic-independent pronominal suffix {o}.

The first person inclusive pronominal root {ṕe} indicates that the person addressed is included. It has a single phonemic shape, /ṕe/. It only occurs in the dual and plural numbers.

The second person pronominal root {mi} has four morphologically conditioned allomorphs. The root {mi} has the shape /mi/ when followed by /te/, an allomorph of the pronominal plural suffix {te}, /s/, an allomorph of the object case suffix {um}, or when not followed by further suffixation. It

has the shape /ma/ when followed by /t/, an allomorph of the pronominal possessive case suffix {t}, /r/, an allomorph of the instrumental case suffix {r}, or when followed by the pronominal dual number suffix /·l/ plus stem formants. It has the shape /me/ when followed by the pronominal dual number suffix /·l/ alone, or the dual suffix plus the pronominal stem formant {e} and the generic aspect suffix {s}. Apparently as the result of analogy when inflected for object or genitive cases in the generic aspect, there are two competing second person pronominal stem forms: one based on the allomorph /me/, the other on the allomorph /ma/. The second person pronominal root {mi} has the shape /miy/ before the emphatic-independent pronominal suffix {o}.

The third person pronominal root {pi} indicates any third person or thing. When in contrast with the pronominal root {ʔe}, the proximal, it is distal. It has four morphologically conditioned allomorphs. The root {pi} has the shape /pi/ when followed by /te/, an allomorph of the pronominal plural number suffix {te}, /r/, an allomorph of the instrumental case suffix {r}, or

when not followed by further suffixation. It has the shape /pu/ when followed by /t/, an allomorph of the object case suffix {um}, /r/, an allomorph of the pronominal possessive case suffix {t}, or when followed by the pronominal dual number suffix {·l} plus stem formants. It has the shape /pe/ when followed by the pronominal dual number suffix {·l} alone, or the dual suffix plus the pronominal stem formant {e}, and the generic aspect suffix {s}. Apparently as the result of analogy, when inflected for object or genitive cases in the generic aspect, there are two competing third person pronominal stem forms, one based on the allomorph /pe/ and the other based on the allomorph /pu/.

The third person proximal pronominal root {ʔe} distinguishes two aspects, particular and generic, in singular subject forms, while aspect is not distinguished for numbers or cases. The pronominal root {ʔe} has three morphologically conditioned allomorphs. It has the shape /ʔe/ when followed by /h/, an allomorph of the particular aspect suffix, /w/, an allomorph of the generic aspect siffix {s}, /ba/, an allomorph

of the plural suffix {te}. It has the shape /ʔewe/ when followed by /t/, an allomorph of the object case suffix {um}, /r/, an allomorph of the pronominal possessive case suffix {t}, and the dual suffix {·l}. It has the shape /ʔew/ when followed by /i·n/, an allomorph of the instrumental case suffix {r}, or /n/, an allomorph of the locative case suffix {in}.

The five pronominal roots are optionally followed by two position classes of inflectional suffixes. The first position class contains six members: the object case inflectional suffix {um}, the pronominal possessive case inflectional suffix {t}, the instrumental case inflectional suffix {r}, the locative case inflectional suffix {in}, the pronominal dual inflectional suffix {·l}, and the pronominal plural inflectional suffix {te}. The four case suffixes have been described in Section 3.1.

The pronominal dual inflectional suffix {·l} marks dual number. It has two morphologically conditioned allomorphs. It has the shape /l/ when affixed to /pu/, an allomorph of the third person pronominal root {pi}, or to the third

person proximal pronominal root {ʔe}; it has the shape /·l/ elsewhere. It may be followed by the pronominal stem formant {e}. It is most probably reconstructed as an allomorphic shape of the uninflected dual number morpheme {lel} noted in Section 5 of this chapter.

The pronominal plural inflectional suffix {te} marks plural number. It has three morphologically conditioned allomorphs. It has the shape /te/ when affixed to /ni/, an allomorph of the first person exclusive pronominal root {ni}, /mi/, an allomorph of the second person pronominal root {mi}, /pi/, an allomorph of the third person pronominal root {pi}. It has the shape /le/ when affixed to /ne/, an allomorph of {ni}, /ma/, an allomorph of {mi}, and the first person inclusive pronominal root {p̓e}. It has the shape /ba/ when affixed to /pu/, an allomorph of {pi}, and the third person proximal pronominal root {ʔe}. It may be followed by the pronominal stem formant {e}.

The second optional position class of suffixes affixed to pronominal roots includes two members: the emphatic-independent inflectional suffix and the pronominal stem formant.

The emphatic independent inflectional suffix {o} has both a semantic and a syntactic function. Semantically it emphasizes the form to which it is suffixed, while syntactically it marks that form as not dependent on another form. It has a single phonemic shape /o/, and is suffixed directly to the pronominal root or to the pronominal root plus the possessive suffix {r}. It does not occur with the first person inclusive pronominal root {ṕe} or the third person proximal pronominal root {ʔe}.

The suffix {e}, the pronominal stem formant, is suffixed to the dual and plural number suffixes, and is obligatorily followed by either aspect suffix. It has two morphologically conditioned allomorphs: /e/ following /·l/, an allomorph of the dual number suffix {·l}, /e·/ following /pu/, an allomorph of the third person pronominal root {pi} plus /l/, an allomorph of the dual number suffix {·l}, and the shape /·/ following the plural number suffix {te}.

The non-possessed nouns /tun/, /ťa·/, /ťe/, /λome/, /ṕe/, /ho/, /ke/, /ḱi/, /qat/, /me/,

and /ˈpur/ may be compounded to the bare pronominal root, the pronominal root plus members of either one or both of the two position classes of suffixes affixed to the root, or to the pronominal dual and plural forms inflected for aspect and case.

CHART OF FIRST PERSON EXCLUSIVE PRONOMINAL FORMS

{ni}: /ni/, /niy/, /ne/

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Singular</u>				
Subject				
Neutral		ni		
Emphatic		niyo		
Object		nis		
Dependent Possessive		net		neta
Independent Possessive		neto		
Instrumental		ner		
Reflexive Verb				niya
<u>Dual</u>				
Subject	ne•let	ne•l	ne•lel	
Object	ne•lem		ne•lelum ne•letum	
Genitive	ne•len		ne•lelun ne•lelen	ne•lena
Reflexive Verb				ne•la
<u>Plural</u>				
Subject	nele•t nitepurut	nite	nite•rum nitepurum	
Genitive	nele•n nele•npurun		nele•len	nele•na
Reflexive Verb				nite•ruma

CHART OF FIRST PERSON INCLUSIVE PRONOMINAL FORMS

{ʔpe}

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Dual</u>				
Subject	ʔpe•let	ʔpe•l	ʔpe•lel	
Object	ʔpe•lem		ʔpe•lelum ʔpe•letum	
Genitive	ʔpe•len		ʔpelelun ʔpe•lelen	ʔpe•lena
Reflexive Verb				ʔpe•la
<u>Plural</u>				
Subject	ʔpele•t	ʔpele		
Genitive	ʔpele•n		ʔpele•len	
Reflexive Verb				ʔpeleya

CHART OF SECOND PERSON PRONOMINAL FORMS

{mi}: /mi/, /ma/, /me/, /miy/

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
Singular				
Subject				
Neutral		mi		
Emphatic		miyo		
Object		mis		
Dependent Possessive		mat		mata
Independent Possessive		mato		
Instrumental		mar		
Reflexive Verb				miya
Dual				
Subject	ma·let	me·l	me·lel	
Object	ma·lem		ma·lelum ma·letum	
Genitive	ma·len		ma·lelun me·lelen	ma·lena
Reflexive Verb				me·la
Plural				
Subject	male·t, mitepurut	mite	mite·rum, mitepurum	
Genitive	male·n, male·npurun		male·len	male·na
Reflexive Verb				mite·ruma

CHART OF THIRD PERSON PRONOMINAL FORMS

{pi}: /pi/, /piy/, /pu/, /pe/

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Singular</u>				
Subject				
Neutral		pi		
Emphatic		piyo		
Object		put		
Dependent Possessive		pur		pura
Independent Possessive		putun		putuna
Instrumental		pir		
Reflexive Verb				piya
<u>Dual</u>				
Subject	pule·t	pe·l	pe·lel	
Object	pule·m		pule·lum pule·tum	
Genitive	pule·n pe·len, pule·npurun		pe·lelun pule·len pe·lelen	pule·na pe·lena
Reflexive Verb				pe·la
<u>Plural</u>				
Subject	pite·rut pitepurut puba·tpurut	pite	pite·rum pitepurum puba·tpurum	
Genitive	puba·npurun		pitepurun	puba·npuruna
Reflexive Verb				pite·ruma

CHART OF THIRD PERSON PROXIMAL PRONOMINAL FORMS

{ʔe}

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
Singular				
Subject	ʔeh		ʔew	
Object		ʔewet		
Dependent Possessive		ʔewer		
Independent Possessive		ʔewetun		
Instrumental		ʔewi·n		
Locative		ʔewin		
Dual				
Subject			ʔewelel	
Object			ʔeweletam	
Plural				
Subject	ʔebaspurut	ʔebas wile	ʔebaspurum	
Genitive	ʔeba·npurun		ʔeba·npurun	ʔeba·npuruna
Object	ʔeba·tpurut ʔeba·npurut		ʔeba·tpurum ʔeba·npurum	

4. Sentence Connectives. Sentence connectives are distinguished primarily in terms of syntactic function, but are morphologically marked in two ways. They are all based on the auxiliary verb root {ʔuw}, they take a very limited number of verbal and nominal suffixes, and are followed by post-posed auxiliaries. Six forms are based on the general verb of doing (distal) {ʔuw}, while five are based on a radical derived from this root, /ʔuni/. To the root {ʔuw} are suffixed the passive {here}, the inevitable future {le}, the causative {m} plus the stem formant {a}, and the particular aspect suffix {t}, while to the radical /ʔuni/ the subordinating suffix {r} is affixed, and the auxiliaries {har}, {bUh}, and {kil} are post-posed. The five forms based on the radical /ʔuni/ are totally anomalous in morphological composition. The suffix and the three auxiliaries are added to stem I forms of verbs, but the vowel /i/ is an allomorph only of the stem III formant {i}.

The following sentence connective forms are based on the auxiliary root {ʔuw}:

/ʔuwe/ 'just that way, anyway'

/ʔut/ implies change in subject 'then, so then and yet'

/ʔule·s ʔut/ 'if you had ..., I would have'

/ʔule·s ʔunir/ 'just because they were alike'

/ʔuma·/ 'thus,' causative (adverbial) for {ʔu}

/ʔuhetan/ 'unless, anyhow, despite, even though'

These sentence connective forms are based on the radical /ʔuni/:

/ʔuni/ quotative (nominalized verb)

/ʔuni-hara·/ 'after ... had continued and' (when previous predication was a continuous state)

/ʔunir/ 'because' (that's the way it is)

/ʔuni-buha/ 'and, and then' (sentence subject remains the same)

/ʔuni-kila/ 'if, and, and then' (conditional)

5. Uninflected words. The last category of words, uninflecteds, are fixed in form and are

distinguished by their inability to occur with inflectional suffixes. They include four semantically and syntactically defined classes: conjunctions, exclamatives, adverbs, directionals and one numeral.

The conjunctions are:

/ʔut/ 'then, so then, and then' (with subject change)

/qah/ 'or, and or'

/ʔelwin/ 'with'

/ƛ̓ala•n/ 'among'

The exclamatives are:

/hada•/ 'wonder

/hadi/ wonder

/hi•hi/ a curse

/ho•/ 'yes'

/di•h/ 'indeed, hm'

/ha•haq/ 'look' (shamanistic)

/haλa/ disgust

/huh/ 'well, all right then'

/huhlel/ 'all right!'

/me•kur/ a curse

/ʔih/ 'oh!'

/ye•/ 'oh!'

/ma•n/ concessive, indefinite

/peh/ aw

/ma•/ oh me!

/ma•y/ oh me!

/tah/ surprise

/sici•/ oh damn!

/mi•ta/ annoyed surprise

/ʔume•/ well

/ye•/ vocative addressive

/ʔu•/ I don't know

/ʔi•/ a sigh

/ʔe•h/ surprise

/ʔay/ ingratiating (weak 'please')

/ʔani•/ regret

/yo•/ conjectural to self (assured?)

The adverbs are:

/po•/ now

/ho•n/ already

/honda/ long ago, for a long time

/honbes/ old (of things)

/hima•/ morrow

/hima•da/ earlier

/limon/ away, out of sight, hearing, faintly

/le·n/ ancient

/le·nda/ yesterday

/ʔelewmina/ certainly

/tuda/ increasingly, further along (from {tu} 'forward' + {da} intensive ?)

There are ten uninflected words of directional meaning:

/way/ north

/nor/ south

/nom/ west

/puy/ east

/ʔol/ up

/ken/ down

/ʔel/ in

/pan/ on

/yel/ away

/yay/ back

These also occur prefixed to roots in verb forms. The directionals and one other prefix, /xun/ 'toward,' which does not occur as a free form, occur followed by four suffixes that appear to be locational, but for which meanings and functions cannot be further specified. The four suffixes are:

{ti} 'at, in'

{da} 'from'

{dal} ?

{el} 'toward, in' with two allomorphs,

/e·l/ following {ʔol} and {xun} and {kel}

/el/ elsewhere.

Examples are:

/yelti/ back of

/panti/ top of

/kenti/ below, under

/ʔelti/ inside

/wayti/ other side

/ʔolti/ above

/ʔoltay/ up above (dialect form of /ʔolti/?)

/wayda/ from the north

/waydal/ outdoors

/xundal/ from lower

/norel/ to the south, southward

/kele·l/ far

/ʔole·l/ up above

/xune·lti/ on this side

There is one uninflected numeral, the dual {lel} which is translated as 'two.'

Chapter V
Brief Discussion of Syntax and Text Analysis

1. Syntactic Units. Most typically the boundaries of morphological words defined on the basis of the fixed order of their component morphemes discussed in Chapter IV, coincide with those of phonemic words discussed in Chapter II. The unit defined by the agreement of phonological and morphological word boundaries is a full word and constitutes the basic syntactic unit. In some instances forms which are phonemically a single word consist of two or more morphological words. These constitute another kind of syntactic unit, called a complex word. The morphological words which occur within the boundaries of a phonological word contour are classed as clitics and non-clitics on the basis of dependence. The clitic is always unilaterally dependent on the non-clitic; the direction of this dependence being determined by 'dropping.' Clitics are classified as proclitics and postclitics by their position relative to the non-clitic. Some morphemic words occur as both clitics and full words. For example,

the partial utterance /+qewel+ʔel+/ 'in the house' consists of one phonemic word but two morphological words. The partial utterance /+ʔel+qewel+/ 'in the house' consists of two phonemic words as well as two morphemic words and hence of two full words. The monomorphemic form /ʔel/ 'in' is both a full word in /+qewel+ʔel+/ and a proclitic in /+ʔel+qewel+/.

The largest syntactic unit is the sentence. Sentences consist of arrangements of full words terminated by a period juncture /./. These arrangements of words are of two types depending on the presence or absence of a word belonging to the morphological class verb which separates them into clauses and phrases.

Clauses which are terminated by a comma juncture /,/ except when occurring sentence finally, obligatorily contain verbs. Phrases obligatorily contain nouns and never main verbs. Clauses are of two types: dependent and independent, according to the type of inflectional ending forming the verb, that is, according to whether the verb contained is dependent or independent. Independent verbs take the personal inflectional suffixes, while dependent verbs are marked by the subordinating suffixes {r}, {t̓an}, {ʔa}, {n}, {so} and {ta}.

Within sentences, the syntactic relations between full words and between full words and clitics are indicated by word order and by inflectional and derivational suffixes as well as by conditions of dependent occurrence. Four types of functions are thereby distinguished: those of head, attributive, satellite, and conjunction.

Heads and attributives are mutually self-defining, heads being those full words not dependent on other forms (heads) for their occurrence. This dependence is generally marked both by the presence of certain inflectional morphemes associated with attributive functions and by the order of the forms relative to each other. Thus, attributives of nouns which are in the locative or genitive case or are subject pronouns precede the noun heads they modify. For example:

/wint^{h}u·n qewelin/ 'in an Indian (Wintu) house'

/pi k'ete·t/ 'that lone one'

/po·min λ'uci/ '...fell, stuck in the ground'

/yay-seden yayt^{h}apcus/ 'Coyote's backsplitter'

Generic subject attributives of nouns follow the heads they modify. For example:

/k'ete·t c'arawa/ 'one coyote'

Attributives of verbs in the locative case, i.e., words in the locative case and noun phrases with heads in the locative case, precede the verb they modify. For example:

/winthu·n qewelin buha/ 'in an Indian house he did live'

/ʔewin biya/ 'here be ...'

/q̓olci·n norel phuta·/ 'It's boiling up in the sky heading south'

/ʔe·lin k̓uda/ 'step all over'

Attributives of verbs in the genitive case follow the verb they modify. For example:

/q̓olca ʔol-kulun/ 'the sky being on edge'

Satellites, which only occur in clauses and include words, phrases, or dependent clauses, are either the subject or object of verbs. This relation is marked by both word order and concord of the nominal inflectional case suffixes {um}, {un} and {in}, or the particular aspect suffix {t} or the generic aspect suffix {s} (which when unmarked for case function as subjects) with the verb stem II deriving suffixes: {t} (which marks the verb as having a subject in the particular aspect), {i·l} (which marks the verb as having an object in the particular aspect) and {m} (which marks the verb as

having an object in the generic aspect). Thus the satellite subject of a verb always precedes it (and is generally the first member of the clause, unless the verb also has an adverbial attributive) except when the satellite object is a dependent clause, or a noun phrase containing a genitive attributive, in which case it immediately follows. For example:

/po•m yel-hura/ "land destroyed"

/ˈcarawa buha way/ "Coyote lived in the north"

/sedet ʔelew ˈkiyemti•n/ "Coyote never speaks wisely"

/wayda me•m hina/ "a northern flood-water will arrive"

But:

/mutut ˈcarawa ʔelew heke•n wint^{h}u•h sukmina/ "Coyote sensed, perceived that there was not a person anywhere"

/ʔewin ˈtipna• yay-seden yayt^{h}apcus/ "this did Coyote's back-splitter understand"

Text with Analysis

The following text, originally published by Dixon in 1909, was entirely re-elicited from Carrie Dixon and retranslated in 1956, and may profitably be compared with the original version. Such a text could not have been collected recently, and like much oral literature, is unfortunately only rarely preserved. (Plus juncture /+/ will be replaced by a space everywhere for greater legibility.)

The Flood

1. po·m[1] yel-hura[2], ʼcarawah[3] buha[4] way[5].
1. land destroyed Coyote stay north
1. There was a big flood and Coyote lived in the north.

2. qewel[6], wintʰu·n[7] qewelin[8] buha[9].
2. house Wintu in house stay
2. He lived in a house, in an Indian (Wintu) house, did he live.

3. ʼkete·t[10] ʼcarawa[11], pi[12] ʼkete·t[13], ʔelew[14]
3. one coyote he one no
3. One coyote, that lone one, with no

heke·n[15] winth^{u}·h[16] sukmina[17].
where the people stand-not
humans to be seen anywhere.

4. ćarawah[18] th^{a}wana·[19], waca·[20], ph^{u}·rus[21] waca[22].
4. Coyote be sad cry heart cry
4. Coyote was sad and lonely; he cried; his heart cried.

5. mutut[23] ćarawa[24] ʔelew[25] heke·n[26] winth^{u}·h[27]
5. heardit coyote no where person
5. Coyote sensed/perceived that there was not a sukmina[28].
stand-not
person anywhere.

6. pi[29] ćete·t[30] buha[31].
6. he one stay
6. That one remained there alone.

7. mute[32] ćiyemti·n[33].
7. hear oldman-speak
7. He heard wise speaking.

8. sedet[34] ʔelew[35] ʼkiyemti•n.[36]

8. Coyote no old man-speak

8. Coyote never speaks wisely.

9. ʔewin[37] biya[38] yay-ʼcarawa[39] ʼkiyemti•n.[40]

9. here be back-coyote old man-speak

9. Coyote-with-a-tail who was here (then) spoke wisely.

10. ʼcarawah[41] ti•n,[42] henuni[43] po•m[44] hima•.[45]

10. Coyote speak how land morrow

10. The Coyote said, "How will the world be on the

ʔibewi•,[46] ʔuni.[47]

be - ? thus quote

morrow?" thus he said.

11. po•m[48] me•m[49] ʼcuha•[50]-wira,[51] ʔuni.[52]

11. land water flow will thus quote

11. "A flood will flow," he said.

12. wayda[53] me•m[54] hina,[55] ʔuni.[56]

12. north water arrive thus quote

12. "A great northern flood-water will arrive," he said.

13. q̓olci·n[57] norel[58] pʰuta·.[59]

13. sky-in south boil

13. "It's boiling up in the sky heading south."

14. me·m[60] wayken-hara·,[61] kele·l[62] hara·.[63]

14. The water receded northward, a long way it went.

14. water north go far go

15. q̓olci[64] po·min[65] λ̓uci[66] hara·.[67]

15. sky land-in stuck went

15. That which was sky fell deeply into the ground.

16. me·m[68] pʰuta·.[69]

16. water boil

16. The water boiled up.

17. sedet[70] ʔelew[71] t̓ipnamina,[72] ʔewin[73] t̓ipna·[74]

17. Coyote no know-not here know

17. Coyote hadn't understood; this did Coyote's

yay-seden[75] yaytʰapcus.[76]

back-coyote-of back-breaker

back-splitter understand.

18. yayt^{h}apcus[77] ti•n,[78] ʔelew[79] ʔibe•sken[80] peh[81]
18. back-splitter speak no be-you aw!
18. The back-splitter said, "Aw, you don't

ʼtipnamina.[82]
know-not
know/understand anything.

19. ya•paytu[83] ʔe•lin[84] ʼkuda[85] ʔibe•,[86] ʔuni.[87]
19. spirit all over step are thus quote
19. The spirits/white people are arriving all over the world," he said.

20. ʼqolca[88] ʔol-kulun,[89] panti[90] ʼkuda[91]-wira[92] ʔibe•.[93]
20. be sky of-up-edge on top step will be
20. The sky being on edge, they are going to step over it, i.e. the horizon's edge.

[1]po·m "earth, land" noun class N, generic subject/object, satellite subject of verb /yel-hura/; from {po·} "now, new, world" + {s} generic aspect suffix.

[2]yel-hura "became broken up, destroyed, reversed" verb class A, stem I, independent main verb of the independent clause; {yel-} prefix "back, backwards" + {hUr} root "remain, be left" + {a} stem I formant.

[3]ʼcarawah "Coyote" lit. field creature, noun class P, particular subject, satellite subject of verb buha; {ʼcar} root "green" + stem I formant {a} + {s} generic aspect suffix + {a} stem formant to form a class N verb + {t} particular aspect suffix.

[4]buha "stay, sit, remain" verb class A, stem I, independent main verb of the independent clause; {bUh} root "sit" + {a} stem formant.

[5]way "north" uninflected directional, attributive adverbial to buha; {way} root "north".

[6]qewel "house" noun class N, generic subject, one word independent noun phrase; derivation obscure, appears to be {qew} root "?" + {el} root-deriving stative verb suffix.

[7]wint^{h}u·n "Wintu, Indian" noun class O, particular locative, as attributive of /qewelin/ in noun phrase; {wi} root "person, man" + {in} locative case suffix + {t^{h}u·} (synchronically obscure, diachronically *tV animate classifier, unique occurrence of this bound morpheme) + {in} locative case suffix.

[8]qewelin "in a house" noun class N, generic locative, head of noun phrase which is a satellite of the verb /buha/; for derivation cf. 6, + {in} locative case suffix.

[9]buha cf. 4.

[10]k'ete·t "one" non-possessed noun class R, particular subject, head of independent noun phrase; {ket} root "little" + {a} stem formant + {t} particular aspect suffix.

[11]c'arawa "coyote" noun class P, generic subject, attributive of /k'ete·t/ in independent noun phrase; for derivation cf. 3. The generic

aspect suffix {s} does not occur with members of noun class P, the aspectual function being marked by the paradigmatic contrast with the marked particular.

[12]pi "that one, he" third person singular pronominal subject, attributive of /ʔkete·t/ in independent noun phrase which is in apposition to the previous noun phrase; {pi} 3rd person pronominal root, unmarked for aspect or case.

[13]ʔkete·t cf. 10.

[14]ʔelew "no" negative preverb attributive auxiliary, attributive of main verb /sukmina/; derivation obscure, cf. discussion p. 189.

[15]heke·n "where" non-possessed noun class A, generic locative, attributive of /wintʰu·h/ in noun phrase; {hI} interrogative/demonstrative root + {k} obscure derivative suffix stem formant {a} or {i} + {in} locative case suffix.

[16]wintʰu·h "Wintu, people" noun class O, particular subject, head of noun phrase which is satellite to verb /sukmina/; cf. 7 for derivation, + {t} particular aspect suffix.

[17]sukmina "stand-not" verb class H, stem II, independent main verb of the independent clause; {suk} root "stand, be" + {mina} negative stem II inflectional suffix.

[18]'carawa cf. 3, satellite subject of verb /t^hawana·/.

[19]t^hawana· "be sad, grieve" verb class K, stem I, independent main verb of the first independent clause; {t^haw} "have a scar" + {a} stem formant + {n} reflexive + {a} stem formant.

[20]waca· "cry" verb class B, stem I, independent main verb constituting the second independent clause; {wac} "cry" + {a} stem formant.

[21]p^hu·rus "heart" noun class L, generic subject, satellite subject of verb /waca·/ (22); {p^hu·r} "breathe" + {u} stem III formant + {s} generic aspect.

[22]waca· cf. 20, independent main verb of the third independent clause of which /p^hu·rus/ is the single satellite.

[23]mutut "heard, perceived him" verb class H, stem II, its position as first word in the sentence marks it as the main verb of the independent

clause which includes a dependent clause satellite as well as a satellite subject; {mut} root "sense, perceive" + {u} stem II formant + {t} personal object suffix.

[24]'carawa cf. 11, satellite subject of main verb /mutut/.

[25]ʔelew cf. 14, attributive of main verb /sukmina/ of the dependent clause which is a satellite of the main verb /mutut/.

[26]heke·n cf. 15.

[27]wintʰu·n cf. 16.

[28]sukmina cf. 17, independent main verb of dependent clause which is satellite to the main verb /mutut/.

[29]pi cf. 12, attributive of noun /'kete·t/ in noun phrase which is the satellite subject of /buha/.

[30]'kete·t cf. 10, head of noun phrase which is satellite subject of independent verb /buha/.

[31]buha cf. 4

[32]mute "hear, perceive" verb class H, stem I, word order again marks it as main verb of independent clause which has as its satellite object a dependent clause, cf. 23.

33 /ʔkiyemti·n "wise-speaking, lit. old man-talk" verb class F, stem I or II morphologically, but stem I syntactically, main verb which constitutes a dependent clause which is the satellite object of the verb /mute/; /ʔkiyemti·n/ is a compound of /ʔkiyem/ "old man" noun class G, generic subject, attributive to {ti·n} root "speak". /ʔkiyem/ < {ʔkiy} root "to age, of males" + {i} stem III formant + {s} generic aspect suffix.

34 sedet "Coyote", noun class B, particular subject, satellite subject of main verb /ʔkiyemti·n/; /sede/ appears to be formed from a root {sId} or {sed} of unique occurence in this form + {i} stem III formant + {t} particular aspect suffix.

35 ʔelew cf. 14, attributive of main verb /ʔkiyemti·n/.

36 /ʔkiyemti·n cf. 33, main verb of independent clause with a satellite subject /sede/, and an adverbial attributive.

37 ʔewin "here" third person proximal pronominal, locative case, attributive of the attributive auxiliary /biya/; {ʔe} 3rd proximal pronominal root + {in} locative case suffix.

[38]biya "is/was" imperfective aspect attributive auxiliary, attributive auxiliary to main verb /ʔkiyemti·n/; {bIy} "be, lie" + {a} stem I formant.

[39]yay-carawa "coyote with a tail" lit. back-coyote, noun class P, generic subject, satellite subject of main verb /ʔkiyemti·n/; cf. 3

[40]ʔkiyemti·n "speak wisely" lit. old man-speak, cf. 33, main verb of independent clause with satellite subject /yay-ʔcarawa/, and attributive auxiliary.

[41]ʔcarawah cf. 3, satellite subject of main verb of independent clause /ti·n/.

[42]ti·n "speak" verb class F, stem I, main verb of independent clause with a satellite subject; {ti·n} root "speak", does not occur with the stem I formant.

[43]henuni "how" verb class B, stem III, main verb of independent clause with satellite subject and auxiliary and adverbial attributives; /henuni is a compound of /hen/ + /ʔuni/,/hen/< {hI}

interrogative/demonstrative root + {n} locative suffix and /ʔuni/ probably < {ʔuw} copula root of doing (distal) + {n} reflexive suffix ʔ + {i} stem III formant.

[44]po·m cf. 1, satellite subject of verb /henuni/.

[45]hima· "morrow" uninflected adverbial, attributive of main verb /henuni/ ; {hI} interrogative/demonstrative root + {m} causative suffix ʔ + {a} stem I formant ʔ, lit. cause to arrive, to be here ʔ

[46]ʔibewi· "be ʔ" imperfective aspect attributive auxiliary, attributive to main verb /henuni/ ; {ʔiy} copula root of doing + {bIy} root 'be, lie" + {u} stem II formant (contracts to /be·/ when auxiliary) + {i·} interrogative suffix.

[47]ʔuni "thus said" quotative sentence connective, indicates immediately preceding independent clause is quotation ; cf. 43.

[48]po·m cf. i, word order indicates satellite object function to verb /ćuha·/.

[49]me·m "water" noun class N, generic subject/object, word order indicates satellite subject function to verb /ćuha·/ ; {me·m} is an unanalyzable root.

50 ʔcuha· "flow" verb class B, stem I, main verb of independent clause which has satellite subject and object and postposed attributive auxiliary ; {ʔcuh} root "flow" + {a} stem I formant.

51 -wira "will" future intentional aspect attributive auxiliary, post posed attributive to main verb /ʔcuha·/ ; {wIr} root "come" + {a} stem I formant.

52 ʔuni cf. 47.

53 wayda "from the north" uninflected directional, attributive to verb /hina/ ; {way} root "north" + {da} locational suffix "from".

54 me·m cf. 49, satellite subject of verb /hina/.

55 hina "arrive" verb class E, stem I, main verb of independent clause with satellite subject and adverbial attributive ; {hI} interrogative/demonstrative root + {n} locative suffix ? + stem I formant {a}.

56 ʔuni cf. 47.

57 ʔqolci·n "in the sky" noun class A, generic locative, attributive of main verb /pʰuta·/ ; {ʔqol} root "weather, sky" + {c} mediopassive suffix +

{i} stem III formant + {in} locative case suffix.

[58]norel "towards south" uninflected directional, attributive of verb /p^{h}uta•/ ; {nor} root "south" + {el} locational suffix "toward".

[59]p^{h}uta• "boil" verb class B, stem I, main verb of independent clause with locative and directional attributives ; {p^{h}Ut} root "boil" + {a} stem I formant.

[60]me•m cf. 49, satellite subject of verb /wayken-hara•/.

[61]wayken-hara• "go north" verb class F, stem I, main verb of independent clause with satellite subject ; {way} prefix "north" + {ken} prefix "in, down" + {har} root "motion away from speaker" + {a} stem I formant.

[62]kele•l "far" uninflected directional attributive of verb /hara•/ ; {kel} "long" + {el} locational suffix "toward, in".

[63]hara• "go" cf. 61, main verb of independent vlause with directional attributive.

[64]ʔolci "being sky, sky" verb class A, stem III, generic nominal stem of noun class A, satellite subject of main verb /hara•/ ; cf. 57.

[65]po•min "in the land" noun class N, generic locative case, attributive of noun /ʔλuci/in noun phrase; cf. 1, + {in} locative case suffix.

[66]ʔλuci "being stuck" verb class A, stem III, generic nominal stem of noun class A, satellite object of main verb /hara•/ ; {ʔλu} "stick, stab, plant ; of long objects" + {c} mediopassive suffix + {i} stem III formant.

[67]hara• cf. 61, main verb of independent clause with satellite subject and satellite object noun phrase.

[68]me•m cf. 49, satellite subject of verb /pʰuta•/.

[69]pʰuta• cf. 59, main verb of independent clause with satellite subject.

[70]sedet cf. 34, satellite subject of verb /ʔtipnamina/.

[71]ʔelew cf. 14, attributive auxiliary of verb /ʔtipnamina/.

[72]ʔtipnamina "hadn't understood" verb class K, stem II, main verb of independent clause with

satellite subject and attributive auxiliary ; {ʔtip} root "notice" + {n} reflexive suffix + {u} stem II formant + {mina} negative suffix.

[73]ʔewin cf. 37, attributive of verb /ʔtipna•/.

[74]ʔtipna• "understand, know" cf. 72, main verb of independent clause with locative attributive and noun phrase satellite subject.

[75]yay-seden "of the Coyote with the tail" noun class B, particular genitive case, possessive attributive of noun /yayᵗʰapcus/ ; {yay} prefix "back" + /sede/ (cf. 34) + {un} genitive case suffix.

[76]yayᵗʰapcus "back-splitter" noun class L, generic subject, noun head of noun phrase, satellite subject of main verb /ʔtipna•/ ; {yay} root "small of the back" (i.e. a body part ; cf. prefix {yay}) + {tʰap} "break, split in two, pull apart" + {c} mediopassive + {u} stem II formant + {s} generic aspect suffix.

[77]yayᵗʰapcus cf. 76, satellite subject of verb /ti•n/.

[78]ti•n cf. 42, main verb of independent clause with satellite subject.

[79]ʔelew cf. 14, attributive auxiliary of verb /ʔtipnamina/.

[80]ʔibe•sken "you being..." imperfective aspect attributive auxiliary, attributive of negative preverb /ʔelew/ ; {ʔiy} copula root of doing + {bIy} root "be, lie" + {u} stem II formant (contracted to /be•/ as auxiliary) + {sken} second person subject suffix.

[81]peh "aw" uninflected exclamative, attributive of verb /ʼtipnamina/ ; perhaps from {pe•} interrogative root occurring as an independent non-possessed noun "what".

[82]ʼtipnamina "not understand, know" cf. 72, main verb of independent clause with attributive auxiliary verb phrase, and exclamative.

[83]ya•paytu "spirits, ghosts, white people" (i.e. pale faces like ghosts ?), unclassifiable, being a verb in form but nominal in function, satellite subject of verb /ʼkuda/ ; from stem /ya•pay/ of unknown derivation "to surround enemies, attack" + {t} animate subject verb suffix + {u} stem II formant.

[84]ʔe•lin "all over" noun class N, generic locative case, attributive of verb /ʼkuda/ ; {ʔe•l} root "inside, everywhere" + {in} locative case suffix.

85 ʼkuda "step, arrive in specified direction" verb class A, stem I, main verb of independent clause with satellite subject, locative attributive, and auxiliary attributive ; {ʼkUd} root "step, arrive" + {a} stem I formant.

86 ʔibe• "are" imperfective aspect attributive auxiliary, attributive of verb /ʼkuda/ ; {ʔiy} copula root of doing + {bIy} root "be, lie" + {u} stem II formant (contracted to /be•/ as auxiliary).

87 ʔuni cf. 47.

88 ʼqolca cf. 57, 64, stem I, main verb of independent clause with a genitive attributive.

89 ʔol-kulun "of the up-edge, horizon" noun class N, generic genitive case, attributive of verb /ʼqolca/; {ʔol} prefix "up" + {kul} root "rim, edge, joint" + {un} genitive case suffix.

90 panti "on top of, above, upon" uninflected attributive of verb /ʼkuda/ ; {pan} root "on" + {ti} locational suffix "at, in".

91 ʼkuda cf. 85, main verb of independent clause with adverbial attributive and auxiliary attributives.

92 -wira cf. 51, postposed auxiliary attributive of verb

/ˈkuda/.

93ʔibe. cf. 86, auxiliary attributive of /ˈkuda-wira/.