The Shasta Language

By

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Committee in Charge

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INTRODUCTION

Mountains mark the four corners of the territory occupied by the Shasta in aboriginal times. In Northern California, the Marble Mountains are to the west and Mount Shasta is to the southeast. In southern Oregon, there is Red Butte to the northwest and Mount Pitt to the northeast.

The Shasta lived in a considerable number of small villages scattered over a rugged, mountainous region that included, in California, the Scott Valley and the Shasta Valley and the stretch along the Klamath River from Shovel Creek to Seiad Valley. The Shasta domain extended across the Siskiyou into Oregon up to that part of the Rogue River Valley drained by Little Butte Creek and the Stewart River.

The groups living along the Klamath from the mouth of Horse Creek to where the town of Hornbrook is now and in Shasta Valley, Scott Valley, and Oregon constituted four loose governmental divisions that were distinguished from each other by slight differences of language and custom.

There were at least three groups in California which seem to have been dialectally divergent from
the main groups and dependent upon them governmentally. The settlements of one of these divergent groups were scattered along the Klamath from the mouth of Horse Creek to Seiad Valley. Another group occupied the canyon area along the Scott River from the mouth of the river to Scott Valley. A third was located in a region extending up along the Klamath from the area where the town of Hornbrook is now to the mouth of Shovel Creek.

In Oregon, the Shasta were in contact with Penutian and Athabascan speakers. The Takelma were to the north, the Klamath and Modoc to the northeast, and the Applegate Creek Athabascans to the northwest. Penutian and Hokan speakers were neighbors of the Shasta in California: the Wintu to the south, Karok to the west, Achumawi and Okwanuchu to the southeast, and New River Shasta to the southwest.

The Shasta themselves were Hokan speakers.¹ In 1957, when I began to collect the data for this study,² the Shasta language had been moribund for sixty years or more and there were only known to be six very elderly people who spoke it with any degree of fluency.³
My main informant was Sargent Sambo (SS) who is now deceased and who had also been the principal source for ethnographic data collected by R.B. Dixon during the period 1900-1904 (Dixon, 1907) and Catherine Holt in the summer of 1937 (Holt, 1946). SS's paternal grandfather was an Oregon Shasta and his paternal grandmother was a Shasta Valley Shasta. His maternal grandfather was Karok. His maternal grandmother was a ka·mántwa· (the dialectally divergent group located along the Klamath between Horse Creek and Seiad Valley). One of his "aunts", i.e. his mother's co-wife, was a Shasta Valley Shasta.

Although SS's father's original home was on the Rogue River, most of his adult life was spent on the Klamath and SS was born and lived all his life in the region along the Klamath River from Horse Creek to Hornbrook.

My supplementary source of data was Miss Clara Wicks (CW), who lived, at least until her early twenties, in the Scott River Canyon area. Her paternal grandmother was a Scott Valley Indian. Her paternal grandfather was white. Her mother's parents were both Shasta, but it is not clear to
which group(s) they belonged.

The speech of each informant can be described as being the result of dialect mixture. Just what mixture each idiolect represents is difficult to determine. In attempting to pinpoint distinguishing features, it is not possible to do more than make random observations or speak of "tendencies". SS was often conscious of dialectal source of a speech form he or CW used; however, CW does not seem to share this awareness of his.

There is no precise information about the degree of divergency that obtained between the Shasta dialects. However, there was no doubt in SS's mind that the "real language" was that variety (or those varieties) spoken by the four main groups of Shasta. SS did not consider the speech of the three dialectally divergent groups mentioned above proper Shasta. For instance, his most frequent term of reference for 'ka·mátwā' was "half-language". Nevertheless, there are more 'ka·mátwā' forms in his speech than in CW's. On the other hand, in certain vocabulary items, there is a tendency for CW to freely vary /n/ and /r/ or substitute /n/ for /r/; this tendency, according to SS, was prevalent among the Shasta who lived in the Scott River canyon.
Regularly in a few items, and sporadically elsewhere, both speakers freely vary /t/ and /k/, e.g. /tuˈtɑː/ /kuˈtɑː/, "what". SS identified the t-variant as indicative of the speech of the Shasta Valley Shasta. There are phonetic differences in the degree of length associated with vowels in SS's speech. In two or more repetitions of a sequence, there will be versions in which the long vowels are extra long and there is concomitant extra heavy stress. When questioned about the significance of such differences, SS would reply either that there was no difference or that the "draggin' way of talkin' " was characteristic of the speech of the Shasta Valley Shasta, particularly that of the people who lived in the area where Yreka is now located.

The obvious difference between the two idiolects is the frequency of use of optional morphophonological rules. (See I,240) having to do with consonant syncope, vocalic contraction, and pitch shift. While these phenomena occur very often in SS's speech, their occurrence is more characteristic of CW's.

Although both informants knew that they
differed from each other in their speech, again it was SS who would most likely be able to say whether the difference was phonological, syntactic or lexical.

This description is of Sargent Sambo's speech, an amalgam of some, but not all, of the dialects of a long inactive speech community. Any structural divergences manifested in CW's will be made note of in the appropriate places in the description. Lexical differences will be accounted for in the dictionary.

The organization of the description stems from the assumption that a grammar is a system of rules which has three components: semantic, syntactic, and phonological. This study provides a description of the phonology and a partial description of the syntax of Shasta. The syntactic statements are concerned with word formation and word classes. There is some nonsystematic comment about phrase and clause formation.

There is no attempt herein to provide rules which specify semantic features and their distributions; instead, each dictionary heading (lexeme)
has associated with it an English gloss and/or pertinent comment that indicates the semantic content represented.

A lexeme (the minimum systematically significant syntactic unit) is represented throughout the description (and in the dictionary) by a morphophonological notation that stands for a set of statements which specify the conversion of a lexeme into a phonemic sequence, i.e. the conversion of a minimum systematically significant syntactic unit to a sequence of minimum systematically significant phonological units, i.e. the phonemes. These rules are called morphophonological rules and are one type of phonological rule (cf. I:200.).

The second type of phonological rule assigns phonetic features to phonemes and phoneme sequences. (See I:100.). These rules cannot be applied until after the morphophonological rules have been applied.

The nature of the data makes even more troublesome the task, difficult under the best of circumstances, of providing an explicit formulation of the intrinsic competence of an ideal speaker-hearer.
The present description, therefore, is a non-rigorous one; i.e. where the data do not allow for rigor, I have been content to discuss their limitations in general terms.

In diverse ways, a number of people have given of their time and energies to bring this work to its present form. Inadequacies in this description are my responsibility and do not reflect in any way upon the people mentioned below.

Above all, I am grateful to Sargent Sambo and Clara Wicks, not only for the information they so willingly gave, but also for the warmth and friendliness they extended to me. I will always remember them with deep affection.

I am also indebted to Cecile and Gordon Jacobs of Hornbrook, California. Their hospitality and helpfulness contributed to making my field trips enjoyable and fruitful.

I wish to express my appreciation to Professor Francis J. Whitfield for his valuable criticism of working copies of this manuscript.

My thanks are due Professor Mary R. Haas, who directed the preparation of this dissertation, for her patience, encouragement, and helpful criticism,
and also for her help in my work on Shasta from the beginning.

To Professor William F. Shipley, I owe thanks for having read and criticized drafts of this manuscript; in addition, I am deeply grateful to him for help given in other ways too numerous to describe here.

I wish here to express my appreciation to my foremost teachers in linguistics: Professor Haas, Professor Whitfield and Professor Murray B. Emeneau. I consider myself fortunate to have studied descriptive and comparative method and theory under their guidance.

I have also benefited greatly from linguistic conversations with Jean Critchfield, Victor Golla, C. Douglas Johnson, Professor Sydney M. Lamb, June Rumery, Professor Jesse O. Sawyer, Leonard Talmey, and Dr. John H. Wahlgren.

Finally, I must thank John D. Klingensmith for his assistance in the typing of this manuscript.
FOOTNOTES TO THE INTRODUCTION

1. R.B. Dixon (1905-1906) placed Shasta, New River Shasta, Okwanuchu, Konomihu, Achumawi and Astugewi together into one Hokan subgroup. The validity of this subgrouping has yet to be demonstrated. For discussion, see Bright (1954), Haas (1963), Olmsted (1956, 1957, 1959, 1964, 1965) and Silver (1964, in press).

2. The fieldwork was supported by the Survey of California Indian Languages (Department of Linguistics, Berkeley) during the summers of 1967-61. Six weeks in the summer of 1960 and one week in the summer of 1961 were also supported by a Bollingen Foundation grant. During this seven week period I worked with my informants on twenty-one texts collected by Jaime de Angulo and L.S. Freeland in the summers of 1927 and 1928. Their informants were Lucinda Snelling and Charlie Wicks. A total of eight months was spent in the field gathering data, including texts.

3. It has been estimated that there were not many more than two thousand Shasta at the time of first European contact. The impact of the goldrush produced rapid deterioration of Shasta culture and contributed to the decimation of the population.
(According to Stephen Powers (1877), the Shasta went into decline with a certain style, "...[They] have dwelt so long amid the mining camps and about Yreka that they have become odiously "fast". They sport the daintiest calf-boots and have an Ethiopian passion for fancy shirt-fronts, breast-pins, rings and the like... . Dapper little fellows, impertinent, dancing, card-playing, pony-racing, idle, thoroughly worthless -- there is not another tribe in the State going out of existence so rapidly, in such good clothes, and with more elegance... . Taken in all their qualities, apparent and traditional, they are the Athenians of Northern California... .")

4. The linguistic status of ̬ka·mátw̓a· vis-a-vis Shasta is very unclear. Catherine Holt (1946) has suggested that the ̬ka·mátw̓a· might have been a Konomihu splinter group. If this is true, Sargent Sambo has mixed in his speech remnants of another language, not a dialect, albeit a language closely related to Shasta. He characterized the speech of the Scott River Canyon people (and also the Shovel Creek group) as Shasta but different. The Scott
River Canyon people talked "kinda broken" and the Shovel Creek group talked "sloppy".

5. Although this description is not intended to be a specific example of a particular theoretical orientation, it reflects the influence of current developments in American linguistic theory.
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This bibliography includes works treating the Shasta, Konimihu, Okwanuchu and New River Shasta peoples and languages. Abbreviations are used as follows:

AA American Anthropologist
BAE Bureau of American Ethnology
IJAL International Journal of American Linguistics
Lg. Language
UCPAAE University of California Publications in American Archaeology and Ethnography
UCPL University of California Publications in Linguistics

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Okwanuchu

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ABBREVIATIONS AND SPECIAL SYMBOLS

abl ablative
addr addressative
coll collective
coll-loc collective locative
cont continuative
decl declarative
dem demonstrative
direct intrans directional (intransitive) aspect
direct trans directional (transitive) aspect
dist, distr distributive
dur durative
fact factative
hort hortative
imper imperative
instr instrumental
loc locative
moment momentaneous
nt substantive
pauc paucal
perf, perf asp perfective aspect
poss possessive
pot potential
prog, prog asp progressive aspect
ref referential
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tr>
<td>sp</td>
<td>species</td>
</tr>
<tr>
<td>spec</td>
<td>specific</td>
</tr>
<tr>
<td>var</td>
<td>variety of</td>
</tr>
<tr>
<td>voc</td>
<td>vocative</td>
</tr>
<tr>
<td>vol</td>
<td>volitional</td>
</tr>
<tr>
<td>vt</td>
<td>verb theme</td>
</tr>
</tbody>
</table>
[X]  X is optional
[X]  X is phonetic
<X>  X is morphophonological
/X/  X is phonemic
{X,Y}  X and Y are mutually exclusive
X = Y  X is equivalent to Y
X ≠ Y  X is not equivalent to Y
X,Y  X or Y
V  Vowel
C  Consonant
Ø  Consonant cluster
T  Apical consonant (cf. 212)
P  Non-apical consonant (cf. 212)
---    'elsewhere' or 'everywhere'
____  specifies the relation of an element to its environment; e.g., X: Y/Z____, i.e. X is realized as Y when Z is the preceding environment.
Chapter I
Phonology

100. Phonemics. There are 26 phonemes in the Shasta sound system, exclusive of junctural and anomalous phonemes: 19 consonants, 4 vowels, a length phoneme and two tonal accents.

Because of morphophonological patterning it is convenient to categorize the consonant phonemes (except for length) as apical and non-apical. The apical and non-apical consonants differ morphophonologically in how they affect vowel assimilation (cf. I,235.2). These are shown below.

<table>
<thead>
<tr>
<th>Consonantal</th>
<th>Apical</th>
<th>Non-apical</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstruents</td>
<td>t c č p k '</td>
<td>'t 'c 'č 'p 'k</td>
<td>s x h</td>
</tr>
<tr>
<td>Sonorants</td>
<td>n m</td>
<td>r y w</td>
<td></td>
</tr>
<tr>
<td>Vocalic</td>
<td></td>
<td>High</td>
<td>i u</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>e a</td>
</tr>
</tbody>
</table>

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110. **The syllable.** The Shasta utterance is bounded by pause or silence (i.e. a pause of indefinite length). An utterance consists of one or more syllables. A syllable occurs with tonal accent and is characterized as heavy or light, open or closed.

Any syllable containing the sequence */V*/ is **heavy**; all others are **light**. A heavy syllable is strongly stressed; a light syllable is weakly stressed. While it is possible for one heavy syllable to have less stress than another, and for one light syllable to have more stress than another light syllable, it is always the case that a heavy syllable is more strongly stressed than a light one.

In disyllabic sequences, either light-light or heavy-heavy, both syllables are equally stressed. In a sequence of three or more light syllables, or three or more heavy syllables, the penultimate syllable receives the most stress.

In polysyllabic sequences of light and heavy syllables, if the penultimate syllable is light, the first preceding heavy syllable will be the most strongly stressed.
An open syllable is one ending in \( \text{V} [\cdot] [\text{L}] \) (where \( \text{L} = /y/, /w/); \) any other syllable is closed. A light open syllable occurring between two heavy syllables is unstressed.

120. **Juncture.** There are two phonological junctures: expressive /\( / \) and pause /\#/. 

120.1. **Expressive juncture.** Expressive juncture is phonetically manifested as a fall in pitch from high to low on the preceding vowel, together with extra lengthening of the vowel; e.g., /ma : má' \( \text{in-s} \) skútay/ 'No! Don't do that (to someone)!'

/na : mí' ma'mí' \( \text{iski-k}/ 'Well, that's what your life has been like!'

121.2. **Pause.** Pause is represented in examples by space and in phonological rules by /\#/. 

It is only possible to make some general statements about prepausal variations, which are primarily concerned with stress, pitch and vowel length. There are variations in degrees of heavy and light stress which continue through the utterance until the first or second syllable following the preceding pause. These variations condition variations in height of tonal accent. There is also
a tendency for vowel length to disappear; however, the strong stress concomitant with vowel length remains.

In addition to the above phenomena, after vowels there is aspiration before pause if the vowel is in a high-pitched open syllable.

Although pause juncture rules that will unequivocally predict these variations have not been formulated, there is no evidence that they are systematically distinctive. Nevertheless, pause as used in the phonological rules must be considered phonetically ill-defined. It corresponds, however, to the boundaries of the word as it is defined by the syntactic rules.

(SS was very definite about phonemic sequences permissible between pauses. What he called a 'word' corresponds to the syntactic definition. What he characterized as 'half a word' corresponds to a bound lexeme or lexemic sequence.)

130. **Tonal accent.** The Shasta tonal system consists of two contrastive level pitches, high (/'/) and low (unmarked). Every syllable occurs with either high or low pitch, for example,
kwáp·i·ma 'he's throwing (it); you(sg.) threw (it)'
kwap·í·ma 'I threw it'
kípxá· 'You(sg.) put your shoes on!'
kípxa· 'You(sg.) roast (it)!
ča·xnúk 'a mussel'
?qá·xnu:k 'a mock orange tree'
?qá·ni· 'mother'
?qá·ni· 'mother(vocative)'
?qá·ni·ni 'little'
?qá·ni·ní? 'mother(referential)'

In the environments /__ʔ#/ or /__w,y[ʔ]#/,
the high pitch has a slight rise,
qúy 'eye'
qáw 'mouth'
ča·skwáy? 'stellar jay'

There is a tendency, especially in slow speech,
for the level pitch on a heavy syllable, or on a
light syllable of the shape CVL, to alternate with
a falling glide,
čí·psí·t : [či·psi·t] [či·psi·t] 'ant'
qúa·k : [qua·k] [qua·k] 'forehead'
qícway : [qícway] [qícway] 'wildcat'
Given a succession of high-pitched syllables, the last high-pitched syllable before pause will be higher than any preceding high pitch, e.g.

mí·yá·war 'a bunch of them'
kás mí· ké· tútí·k 'That's what happened!'

In a series of low pitches preceding a high pitch, the immediately preceding low pitch will be higher than any other low pitch in the series,

kwí·ya·c·uká·' 'I was pretty sure'

In a succession of low pitches following a high pitch, and not preceding another high pitch, the last low-pitched syllable is the lowest,

kúxamehempirakmak·ira· 'He's going from chair to chair to see which is the most comfortable.'

140. **Consonants.** Voice is the phonemic component that sets off obstruents from sonorants in Shasta. Obstruents are voiceless and lenis, sonorants are voiced and fortis.

141. **Obstruents.** The following chart shows the phonemic components that distinguish obstruents.
<table>
<thead>
<tr>
<th>Sound</th>
<th>Manner</th>
<th>Position</th>
<th>Glottalization</th>
<th>Affrication</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>stop</td>
<td>alveolar</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ʈ</td>
<td>&quot;</td>
<td>&quot;</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>c</td>
<td>&quot;</td>
<td>&quot;</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>㏄</td>
<td>&quot;</td>
<td>&quot;</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>ḉ</td>
<td>&quot;</td>
<td>alveolo-palatal</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>__;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>s</td>
<td>spirant</td>
<td>alveolar</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>p</td>
<td>stop</td>
<td>labial</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ｐ</td>
<td>&quot;</td>
<td>&quot;</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>k</td>
<td>&quot;</td>
<td>velar</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>kerja</td>
<td>&quot;</td>
<td>&quot;</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>ｘ</td>
<td>spirant</td>
<td>&quot;</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>等一批</td>
<td>stop</td>
<td>glottal</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ｈ</td>
<td>spirant</td>
<td>&quot;</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

141.1 **Stops.** The stops that occur glottalized are *glottalized* stops; those that occur with affrication are *affricated* stops; the other stops are *plain*.

The alveolars /t/ and /ʈ/ tend to be dental before /i/. In this environment the tongue tip touches the back of the teeth and the apex is pressed against the alveolus.
The articulation of the velars, /k/ and /k/, when occurring before back vowels often approaches the post-velar position.

Before pause the glottal, /ʔ/, freely varies with its absence, or is aspirated in the environment /V__#/ and occurs as glottalization of the preceding segment in the environment /r,y,w)__#/.

In the environments /(#,C)__w,y/) it occurs as glottalization of the following segment,

- a·kwaŋ 'flint'
- a·raw 'deer'
- wú·wa·wahů 'everything'
- kwík⁠-yewik 'she was weaving'
- kit·ár 'salmon'

The articulation of the affricated alveolars, /c/ and /ç/, is that of an unreleased stop with homorganic sibilant release or prepalatal sibilant release produced with accompanying tongue tip retroflexion. The latter articulation tends to occur before consonants and high vowels, especially in allegro speech.

The affricated alveolo-palatals, /č/ and /çi/, have an articulation consisting of an unreleased
alveolar stop with shibilant release.

Glottalization occurs simultaneously with the stop articulation and is normally lenis, although at times it can be quite fortis. With the non-affricated stops, it is accompanied by weak aspiration. In allegro speech the glottalization is often not perceptible.

Before a consonant, plain stops have a phase release [⁺], i.e. all other articulatory activity is discontinued before the release takes place and it is isolated and distinct. (Cf. I.152.2 for examples). Elsewhere the release of plain stops is lenis.

141.2. Spirants. The alveolar /s/ has a phonetic range of alveolar to pre-palatal. It is pre-palatal in the environments /#(i,u)/ and /(i,u)#/. In the latter environment there is a tendency toward tongue-tip retroflexion. 7

The velar /x/ is slightly fronted before front vowels and approaches the post-velar position before back vowels. It has both fortis and lenis articulation, the fortis articulation occurring most often before consonants. At times, its articulation is so
lenis that it is difficult to distinguish from /h/.

The glottal /h/ is partially voiced inter-
vocally. Elsewhere it is voiceless. When /h/
occurs in the environment /(#, C)__/(y, w), the
sequence /h/ is heard as a voiceless high front
vowel,

'kwíkhyewik

'he heard it'

142. **Sonorants.** The sonorants include two
nasals, a flap, and two semivowels.

The nasals are /n/ an alveolar, and /m/ a
labial.

The alveolar /r/ is a voiceless trill in the
environment /__/(C, #) (when C /r/); elsewhere it is
a voiced flap,

kírkir

'tinware'

rárača·m·ic·ik

'He's eating so he can go.'

kit·árri·?

'Let it be the salmon.'

The semivowel /y/ is a palatal offglide in the
environment /V[·]__/(C, #)/. When /a/, and sometimes
/u/, occurs in the environment /__[/i\(y, (?, h)[·]\]i)/
it is accompanied by a palatal onglide as the tongue
moves from the low central to high front position.
This offglide is predictable, e.g.,
má'ni
má'ni

you(sg)
'shut'

Elsewhere it is a non-syllabic high front vowel, articulated with slight friction. (See I:131.2 for description of the sequence /hy/).

The semivowel /w/ occurs as a labial offglide [u], as voiceless labial un-glide [W], labialization of the preceding consonantal segment [W], a voiced labial on-glide [w], and an unpronounced (almost retracted) voiced bilabial spirant [b].

Distribution of the allophones of /w/ are given below.

<table>
<thead>
<tr>
<th>/w/</th>
<th>Phone</th>
<th>Phonemic Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>[b]~[w]</td>
<td>(i,e)</td>
</tr>
<tr>
<td>2.</td>
<td>[u]</td>
<td>V[·] (C,#)</td>
</tr>
<tr>
<td>3.</td>
<td>[W]</td>
<td>(#,k,̂k)h</td>
</tr>
<tr>
<td>4.</td>
<td>[W]</td>
<td>#C V (when C≠ sonorant k̂ or glottal)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V(k,̂k[·])</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V(C:,CC)</td>
</tr>
<tr>
<td>5.</td>
<td>[W]~[w]</td>
<td>V·C V (when C≠ /k,̂k/)</td>
</tr>
<tr>
<td>6.</td>
<td>[w]</td>
<td>--</td>
</tr>
</tbody>
</table>
Examples are,

1. ṭiwiwi? 'body louse' ṭéčehé'wi 'ten'
2. xáwik 'nutshell'
3. ṭíkhwa•• 'hip bone' hwítahá'wanta•• 'he lost'
4. swíc•ik 'I'm drinking' ṭíwikwa•ma 'roof'
   ṭík•wa 'burrow' kwápwxwi'ka 'he blacked out'

wá'sakwxayxér 'little ground squirrel'
5. ṭé'xwa• 'awl'
6. ṭí•wa'wahú• 'everything' ṭáti'áywi 'river'
   rwí'ha'pay 'let him pile
   it up.'

In the environment / (u,w) (k,x,h,?) (•,h) V/
[w] and [W] may be present or absent. This variation
is considered phonemically predictable. (In some
forms the labialization is always present),

xúk'a? : [k'•W] 'two'
čux·ár : [x•W] 'lizard(sp.)'
óác'uk : [kW]~[k] 'younger sibling'
púruhi? : [hW]~[h] 'juniper'
ma'pú'khay : [kW]~[k] 'dove'
mí'hú ké· tútik : [kW]~[k] 'that's what he did'
(Cp. mí· ké· tútik 'that's what he did')

150. **Vowels.** The Shasta vowels are front, high and low, and back, high and low. /i/ is front-high, /e/ front-low, /u/ back-high, /a/ back-low.

There are two patterns of vowel allophony: **positional** and **assimilatory.** The positional pattern has to do with the occurrence of vowels in light or heavy syllables. The assimilatory pattern has to do with the conditioning of the allophony according to preceding or following environment.

151. **Positional allophony.** The following chart shows the phonetic patterning in light and heavy syllables:

<table>
<thead>
<tr>
<th>Allophony</th>
<th>Light</th>
<th>Heavy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phoneme</td>
<td>Open</td>
<td>Closed</td>
</tr>
<tr>
<td>/i/</td>
<td>[I]~[i]</td>
<td>[I]</td>
</tr>
<tr>
<td>/a/</td>
<td>[ʌ]~[a]</td>
<td>[ʌ]</td>
</tr>
<tr>
<td>/u/</td>
<td>[U]</td>
<td>~</td>
</tr>
<tr>
<td>/e/</td>
<td>[ɛ]</td>
<td></td>
</tr>
</tbody>
</table>

In unstressed syllables or weakly stressed closed syllables, there is a tendency toward centralization. Taking the allophones [I],[U],[ɛ],[ʌ] as
representative of the most frequent station in light syllables, we find the following pattern:

\[
\begin{align*}
[I] & \rightarrow [U] \\
[ɛ] & \rightarrow [\wedge]
\end{align*}
\]

152. **Assimilatory Allophony.** Shown below is the distribution of allophones before semi-vowels.

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>/\text{[\cdot]y/}</td>
<td>/\text{[\cdot]w/}</td>
</tr>
<tr>
<td>/i/</td>
<td>[i]</td>
</tr>
<tr>
<td>/e/</td>
<td>[E]</td>
</tr>
<tr>
<td>/a/</td>
<td>[a]</td>
</tr>
<tr>
<td>/u/</td>
<td>[u][\omega]</td>
</tr>
</tbody>
</table>

/a/ also has the quality [ ] in the environment /\text{[\cdot](h,\text{\textcopyright})}/.

When the sequence /e\cdot/ occurs in the environment /\text{\textcopyright}p,x,h/ or /\text{\textcopyright}C[\cdot](a,u)/, [ɛ] very often varies with [æ]. However, there are examples of the variation elsewhere, e.g. /'e\text{\textcircled{t}}\text{\texttextcircled{i}s}k\text{\texttextcircled{t}}h\text{\texttextcircled{n}}ax/ 'morning star'.

160. **Length.** /\cdot/ is an anomalous phoneme in that duration is the only phonemic component that all of its allophones share. It represents both vocalic and consonantal length. There is contrast
between VC, V·C, VC·, and V·C·, for example,

\texttt{'átak·a} 'elk' \quad \texttt{kwá·tak} 'coyote'
\texttt{kwá·tak} 'He came' \quad \texttt{ki·ʔ·ak} 'You(sg) look
\quad \texttt{hither}'
\texttt{hither}'

161. \textbf{Vowel Length}. All vowel sounds occur short.
All vowel sounds except [I] and [ʌ] occur long.
(For statement of vowel allophony see I.140-42).
The duration of long vowels is variable and seems
to be determined by occurrence in sequences of open
and closed syllables. It has not been possible to
formulate precise statements about the interaction
between syllable sequences, vowel length and stress.
(See I:110-120 and Introduction, p. 5 ). Examples
of contrasts between long and short vowels are cited
below.

\texttt{'ápsu} 'a pipe' \quad \texttt{u·khí} 'a cane'
\texttt{á·psu} 'a dog' \quad \texttt{ukhí·} 'over there'
\texttt{ki·ʔ·ak} 'You(sg) give me \quad \texttt{če·ʔ·a?} 'one'
\quad \texttt{that}!' \quad \texttt{čé·ʔ·a?} 'Let's go!'
\texttt{ki·ʔ·ak} 'You(sg) look
\quad \texttt{hither}'

162. \textbf{Consonant Length}. All consonants except
/r, y, w/ occur long and short. The duration of long
consonants is equivalent to the duration of a consonant cluster, e.g.,

\[ ?ic\text{\textperiodcentered}kuruwa\cdot\text{psu} \quad \text{'something colored blue'} \]
\[ ?ic\text{\textperiodcentered}kuruwa\cdot\text{s\textperiodcentered}u \quad \text{'a rainbow'} \]

In allegro speech, the length distinction tends to disappear, especially before and between long vowels.

162.1. **Contrast between C and C'**. Examples of short and long consonants are given below.

\[ ?atu\cdot \quad \text{'nothing'} \quad ?api\cdot\text{s} \quad \text{'worm(sp)'} \]
\[ ?at\cdot u\cdot \quad \text{'wild sunflower'} \quad ?apa\cdot \quad \text{'buckskin string'} \]
\[ ?ica\cdot a\cdot \quad \text{'a trail'} \quad ?akarax \quad \text{'a gnat'} \]
\[ kica\cdot chi\cdot \quad \text{'You(sg) drink it up'} \quad ?akir\cdot \quad \text{'a board'} \]
\[ ?isika\cdot a\cdot \quad \text{'a person'} \quad ?e\cdot xa\cdot \quad \text{'a bear'} \]
\[ ?isik\cdot \quad \text{'cold'} \quad ?exe\cdot \quad \text{'we are sick'} \]
\[ ?ani\cdot miz\cdot a\cdot \quad \text{'mother'} \quad ?ama\cdot ci\cdot \quad \text{'lizard(sp)'} \]
\[ ?ani\cdot tik\cdot a\cdot \quad \text{'aunt'} \quad ?ama\cdot r \quad \text{'he's going to get whipped'} \]
\[ kwesheitik \quad \text{'He's running'} \quad kw?acwik \quad \text{'he went out that way'} \]
\[ swesh\cdot e\cdot tik \quad \text{'I'm packing (wood)'} \quad kwicwa\cdot \quad \text{'I looked up'} \]
The situation with the affricated stops is complex. /cʰ/ is heard as a sequence of unreleased alveolar stop plus a long alveolar or pre-palatal retroflexed sibilant [tʰsʰ] or [tʰʃʰ]. (There are no examples of /cʰ/. /čʰ/ is a long alveolar stop with sibilant release [tʰʃʰ]. When /čʰ/ occurs, the glottalization is simultaneous with the stop element.

162.2 Contrast between Cʰ and CC. The non-affricated stops and the alveolar and velar spirants have contrasts between long consonant and a sequence of two like consonants.⁸ For all other consonants, except /r, y, w/, there is only the contrast between C and Cʰ.⁹

The following set of forms will serve to demonstrate the problem concerning the stops,

1. ká[tʰ]aya' 'you(sg) chase him!'
2. wá[tʰ]a' 'a willow'
3. rični[tʰ+t]úk 'on the belly'
4. nam pá[tʰ+t]úk 'on the acorn'

In 2 and 3 we find contrast between a long consonant and a sequence of two like consonants, the first with phase release. In 1 and 4 there is contrast between a long consonant and a sequence of like consonants whose first member is weakly
aspirated. Although, in the examples above, the released consonants precede syntactic boundaries, the rule is that in any sequence of stop plus consonant, the stop is released,

'ápsu 'a pipe' púkpuk 'a salamander'
atká' 'wild plum' wí·twi·t 'Wilson snipe'
axták?am·a· 'a boiling makmú? 'bumblebee'
basket'

'iti·wákha·' 'Horse Creek'
(In the last two examples /k/ and /k/ precede syntactic boundaries). A sequence of released consonant plus consonant is written phonemically as CC; therefore 3 and 4 above are represented as /'íčnittúk/ and /nampáttúk/.

For the spirants /s/ and /x/ there is also a contrast between C· and CC; however, unlike the stop situation, the CC is only in positions that coincide with syntactic boundaries. In slow speech, there is variation between long spirant and a sequence of two spirants, the two-member sequence being signaled by rearticulation,

'am·á[x]í·yáx ~ am·á[x,x]í·yáx 'close by'

ká[s·]á· tat·á? ~ ká[s,s]á· tat·á? 'I'm going to go'
In forms like /yé•x•e/ 'we are sick' and /ʔáš•a/ 'rope' such a variation does not occur; here, we find only [C•].

Any sequence where the variation [C•] [CC] is possible is represented by /CC/; therefore, the examples above can be rewritten as, /ʔam•áxxí•yáx/ and /kás sá• tat•áʔ/.

170. Anomalous Phonemes and Clusters. There are two phonemes and a sequence of phonemes that are obviously anomalous. These anomalies occur in forms borrowed from English. Other English borrowings fit into the Shasta system; e.g. /číkin/ 'chicken', /hé•kiču/ 'handkerchief'.

170.1 /ʁ/ There is an r-sound which is phonetically equivalent to English post-vocalic r. It is symbolized as /ʁ/ and occurs in /pérs/ 'pear' and /péřshi•húʔ/ 'a pear tree'.

170.2 /’/ There is an anomalous tonal accent which occurs in one form, /tì•/ 'tea'. Phonetically it is characterized by a falling glide accompanied by extra vowel length.

170.3 /ia/. Vowel clusters do not occur in Shasta. There are two forms /rákapia/ 'lager beer'
and /pía/ 'beer', which contain the cluster /ia/.
This cluster is phonetically distinct from a
sequence /iya/ in that no y-sound occurs between
/i/ and /a/.

180. Distribution of Phonemes. The syllable
canon is $\phi_1 \phi_2$ or $\phi_1 V \phi_2$ (where $\phi_1 = (C[C][L])$,
($C\cdot[L])$; $V = V[\cdot]$; $\phi_2 = ([L][C])$, (kw). *

As can be seen from the canon, every syllable
must begin with a consonant, syllable-final conson-
ants are optional, and there are no vowel clusters
(see I.171.3). Other restrictions are as follows,

If $\phi_1 = C\cdot[L]$, $\phi_1$ cannot follow # or $\phi_2$ (when
$\phi_2 = C$, (kw))

If $\phi_1 = C$ (when C = w), $\phi_1$ cannot precede L

181. Vowel and Tonal Accent Distributions. There
are no restrictions on vowel or tonal accent distri-
butions. It is the case, however, that Shasta
utterances, whether monosyllabic or polysyllabic,

* $\phi_1$ stands for syllable initial; $\phi_2$ syllable final
do not occur without at least one high pitch.**

182. **Consonant Distributions.** All consonants except /c/ and /č/ occur after pause. /h/ does not occur in syllable-final position and /ŋ/ is extremely rare in that position, except before pause-juncture. /p/ and /č/ are also rare in syllable-final position.10

182.1 **Initial Consonants and Consonant Clusters.** Given below are examples of word-initial consonants and consonant clusters. Word-initial clusters consist of Cw, C(t,k,r)[w]. Most of these clusters represent the verbal prefixes. The clusters with /w/ are the result of operation of morphophonological rules (see I.200.) at either the synchronic or diachronic levels.

\[
\begin{align*}
/t/ & \quad \quad /t/ \\
\text{tí·cåw} & \quad \text{\textquoteleft hornet\textquoteright} & \text{i̹ikwá·yax} & \quad \text{\textquoteleft bulb(sp.)\textquoteright} \\
\text{té·cni̹·k} & \quad \text{\textquoteleft he sang\textquoteright} & \text{te·cni̹} & \quad \text{\textquoteleft He\textquoteright s going to sing\textquoteright} \\
\text{táka·} & \quad \text{\textquoteleft who\textquoteright} & \text{tára·k} & \quad \text{\textquoteleft dirt\textquoteright} \\
\end{align*}
\]

**Except for /e·x/ 'and expression of disgust'.

Here the low pitch is accompanied by extra vowel length and extras heavy stress.
| tu'ni  | 'when' | tu'ku  | 'pestle' |
| twi-púkya | 'Are you(sg) bathing?' | twi-há-pay | 'He's going to pile it up' |
| /č/ | /č/ | /č/ |
| čírik | 'a colt' | čík | 'mud' |
| čé-čutúk | 'hot springs (spec)' | čé-ča? | 'one' |
| čási-sí? | 'gravel' | čák-i? | 'redwinged blackbird' |
| čumír? | 'a board' | šút-a? | 'gray squirrel' |
| čwín-a. | 'It made a noise' | čwé?i? | 'California jay' |
| /s/ | /n/ | /s/ | /n/ |
| sí-rak | 'crayfish' | nis'ák | 'You(sg) stay here!' |
| sé-wa? | 'I see it' | né-akahú | 'You(pl) keep on going!' |
| sámtu? | 'a corpse' | nah-ú? | 'a cedar' |
| súk'ax | 'a boy' | nük-atay | 'a deer trail' |
| skará-ka? | 'You(sg) are lying down' | nwičkúk | 'You(sg) keep on eating' |
| skwé-čoni-k | 'You(sg) are singing' |
sréha’wá•ʔi 'if it's growing' rí•ptawa 'She's tattooed'
srwí•ha•pay 'if he piles it up' ré•ʔa? 'Let them go!'
stat•á• 'go(optative) it up' rá•ʔa? 'Let him go!'
stwat•ík•a 'You(sg) come hither' rwí•ha•pay 'Let him pile it up!'
stí•pu 'You(sg) are going to bathe'
swíc•ik 'I'm drinking.'

/p/
pípa 'paper' yí•pa? 'He got stung!'
pérs 'pear' yé•ʔi•ma 'We went hither'
papú•ʔas 'Oregon grape' yáh•ar 'child'
púkpek 'salamander (sp)'
(yú•mis 'friend'
pwí•c 'magnesite' ywi•há•panta•? 'We're piling it up'

/k/
píc•á•? 'I shot it' kírkir 'tinware'
pé·wa 'I saw it'  ke·cní· 'You(sg) sing!'
'pútik 'I did it'  káris·á· 'You(sg) be
good!'
'pát·i·ma 'I went.'  kurá· 'where'
kwać· 'he'

/k/  /ʔ/
'
kí·,u 'yellowjacket  ?ípta 'powdered
snow'
'
'ke·pxi· 'k 'the round  ?é?u·mir 'stirrup'
dance'
'káw 'snow'  ?ápka 'hand'
'kuré·tat 'bird(sp)'  ?úpsi 'flesh'
'kwá·tak 'coyote'  ?wis·ík 'he's talking'

/h/  /m/
hí·k·a· 'evil water  míri 'snowshoe'
spirit'

hé·kiču 'handkerchief'  má·?i 'you(sg)'
há·hi 'oak bark'  mú·kas 'eagle's down'
hwí·tahá·wanta· 'He lost'

/x/  /w/
xá·ta· 'moss'  wí·twi· 'Wilson snipe'
xú·tir 'sweathouse  we·psíɾ 'father-in-law'
center post'  wácna· 'storage hole'
182.2 **Final Consonants and Consonant Clusters.**

/ʔ/ is the most frequent word-final consonant.

Word-final consonant clusters consist of

/\(y,w\)/C/, or /kw/. As is the case with word-initial clusters, these are the output of the optional morphophonological rules.

Examples of the occurrence of final consonants and clusters follow. (/kw/ occurs in only three forms, all of which are cited as examples).

<table>
<thead>
<tr>
<th>Acute Final</th>
<th>Non-Acute Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>či·psí·t</td>
<td>tí·pti·p</td>
</tr>
<tr>
<td>ná·t</td>
<td>čík</td>
</tr>
<tr>
<td>káka·c</td>
<td>kis·áyk</td>
</tr>
<tr>
<td>kwác</td>
<td>?in·áwk</td>
</tr>
<tr>
<td>?áyč</td>
<td>wá·sakw*</td>
</tr>
<tr>
<td>mí·tič</td>
<td>'enough'</td>
</tr>
<tr>
<td>?it·í·č</td>
<td>kim·ákw</td>
</tr>
<tr>
<td>čá·s</td>
<td>čú·k</td>
</tr>
</tbody>
</table>

* Cw has wá·suk for this form; (cf. fn. 7).
pá·stin 'white man' xáwk 'nutshell'
xá·r 'soaproot' kit·ár? 'salmon'
?ič·í·payr 'cradle basket' ta·wáy? 'beaver'
?ičáy 'bitter' ?aráw? 'deer'
?ámpax 'father's sister'
?epiké·m 'Happy Camp'
?áw 'mouth'

182.3 **Medial Two-consonant Clusters.** The chart below shows the medial two-member clusters that are found in the corpus. While non-occurrence of some clusters may be fortuitous, note should be made of the fact that there is no /yy/ cluster. Also, the only examples of C·C are forms containing a velar stop or /h/, e.g. /kwa·h·yú/ 'trail crossing'; /?ik·wa/ 'a burrow'.

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SECOND MEMBER

|   | t | t | c | č | č | s | n | r | y | p | p | k | k | ? | x | h | m | w |
| t | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| t | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| c | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| č | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| č | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| s | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| n | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| r | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| y | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| p | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| p | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| k | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| k | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| ? | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| x | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| h | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| m | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| w | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

182.4 Other Medial Consonant Clusters. Examples of medial three consonant clusters are given below.
There is only one four-consonant cluster in the corpus; it occurs in /ʔín-áwskwa-/ 'Never mind!'

kwíkhyewik 'She's weaving' ka·r?yú 'You(sg) separate them!'

kwíkhyewik 'He hears it.' ká·ʔa·sk'yú 'You(sg) part your hair!'

kíčiknyú 'You(sg) get on it!' kwískwayik 'He's telling a lie'

ʔíkhwaʔ 'hipbone' tawáyknak 'a big beaver'

wá·sakwxá·yxér 'half-grown ground squirrels'

kičáʔ·aympá 'a robe'

típswik 'He got married' ʔíčmakara·ypsír 'owl'

kwápxwi·ka 'He blacked out' čé·thyahámpaʔ 'He got left behind'

ʔwis·áwktac·á 'towards the one sitting down'

ʔáwskak·a 'woolly face (pers. name)'
CHAPTER I:100

(Footnotes)

1. There are no examples in the corpus of monosyllables ending in a vowel, not followed by */\ and / or a consonant.

2. All monosyllabic words in the corpus, except two occur with high pitch. (See I.170. for description of the exceptions.)

3. In the following sequences enclosed by brackets, only the tonal features are phonetic; the segmentals are phonemic. To an English ear, the phonemic pitch on a heavy syllable seems to be phonetically higher than the phonemic pitch on a light syllable; therefore, the impression is that low pitch on a CV: is higher than it is on CV, and in a sequence like /CV•CV/ one has the impression of two high pitched syllables.


5. There is one item in the corpus that has a
[n] before pause, /'ănun'/ 'wild sunflower'. This form is from one of the divergent dialects, though I was not able to ascertain which one.

6. In these environments it is difficult to distinguish /c/ or /č/ and /č/ or /צ/. In some forms there is definitely free variation, e.g. /xáčki/ /xáčki/ 'three'.

7. There are two forms in which there is a pre-palatal retroflexed articulation before /a/; /sastɪ'kaʔ/ 'the chief of the Shasta Valley people' and /sákw/ 'a bulb(sp.)'. Both forms, SS would also pronounce with the alveolar articulation. For /sákw/ CW has /súk/.

8. The effect on the ear that the non-affricated stops have is reminiscent of what R-M.S. Heffner calls 'double' consonants; i.e. "a...stop...which serves both to arrest one syllable and release the next...". (General Phonetics, University of Wisconsin Press, 1960, p.176).

9. There are no examples of like affricate clusters; this may well be fortuitous since there are examples of /cč/ clusters. /h/ does not occur in syllable final position; however /h·/ does. The occurrence
of /ʔ/ before another consonant is rare and in one case the cluster /ʔC/ is in free variation with /C·/, a variation which may be indicative of the dialect mixture.

10. There are also no examples of /p'/ before pause. (The only /p/ in word final position is in /ká·s·ap/ 'big bend in the Klamath river'; SS said this form is /ka·mátwə/. ) The rarity of /p'/ before another consonant may be due to mishearing on my part.
200. **Morphophonology.** Shasta morphophonological rules consist of two subsets: (a) rules that account for systematic alternations occurring in unique environments or in several environments that have no common feature (**morpholexical rules**), and (b) rules that specify generalized systematic phonological alternations (**morphophonemic rules**).

An inventory of the lexemes to which morpholexical statements apply is given in I.250. The morpholexical rules are found in Chapter II, accompanying the class-member statements. In the application of morphophonological rules, the morpholexical statements take precedence over the morphophonemic statements.

Assimilation, loss, alternations involving quantity, and tonal alternations are the salient types of phonological modification in Shasta. These automatic alternations, together with other less easily classified changes, are either **optional** or **obligatory**. Consonant syncope and the concomitant vowel contractions are optional changes. All other alternations are obligatory. Morphophonemic rules, then, fall into two sets, obligatory and optional, with the obligatory set having priority
of application on the morphophonological string.

210. **Symbolization.** Below is a description of the symbols used in the morphophonology, the syntactic description and the texts.

211. **Orthographic symbols.** Space in the morphophonological string marks boundaries between lexemes that are constituents of themes, i.e. affixes and radicals; it signals that the morpholexical rule inventory must be checked before applying the morphophonemic rules.

Boundaries between words, i.e. lexemic constructions that are constituents of clauses, are marked by space both in the syntactic description and in the texts, and by "#" in the morphophonological rules (and, when necessary, in the examples accompanying the rules).

Boundaries between clauses are marked by "." in the syntactic description and in the texts.

212. **Morphophonological symbols.** In addition to the morphophonological symbols charted below, and the cover symbols "C" and "Y", "T" and "P" occur in rules. "T" is for any apical consonant, "P" for any nonapical consonant. Both symbols
occur in a statement concerning vowel assimilation. Unless otherwise specified, "V" stands for V or V*, "C" stands for C or C*.

A chart of the morphophonological symbols follows. Nonalternating symbols are isomorphic with phonemic symbols. **Alternating** symbols represent alternations between phonemes or alternations between phonemes and their absence.

<table>
<thead>
<tr>
<th>Nonalternating</th>
<th>Alternating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consonants</td>
<td></td>
</tr>
<tr>
<td>t c č</td>
<td>r y</td>
</tr>
<tr>
<td>′t ′c ′č</td>
<td></td>
</tr>
<tr>
<td>n s</td>
<td>w b ?</td>
</tr>
<tr>
<td>p k</td>
<td>w h h</td>
</tr>
<tr>
<td>′p ′k</td>
<td></td>
</tr>
<tr>
<td>m x</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>H</td>
</tr>
<tr>
<td>Vowels</td>
<td>i a u</td>
</tr>
<tr>
<td></td>
<td>t e u</td>
</tr>
<tr>
<td></td>
<td>e v*</td>
</tr>
<tr>
<td>Tones</td>
<td></td>
</tr>
<tr>
<td></td>
<td>unmarked</td>
</tr>
<tr>
<td>Junctures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>!</td>
</tr>
</tbody>
</table>

*<v> is an unknown vowel that is a tone carrier (cf. I.232,2,236).
220. **Predictability of phonological alternations.**
The paucity of information about the details of
dialect (or even language) coalescence present
in the data precludes the formulation of unequivocal
statements about the particulars of morphophonological modification.

Whenever possible, phonological variations
are described in terms of morphophonological rules,
even though there are counterexamples. Examples
counter to particular morphophonemic or morpho-
lexical rules are discussed in the grammar and/or
in the dictionary.

Just how alternations are predictable is
sometimes problematical. Some modifications could
be described as either morphophonemic or morpho-
lexical, others as morpholexical or lexemic. The
following three sets of forms illustrate the problem.
(In these sets the tonal alternations are ignored.)

1. `<iNú>` 'reciprocal'
   a. `/kwá·takwimpáʔ/` 'those two are
      quarrelling'
   b. `/kwá·takwí·wé·keʔ/` 'All of them are
      quarrelling'
c. /ká·takyú·ʔ/  'You(two)quarrel!'

In the above forms, the phonemic sequences /imp/, /iw/, and /yú·/ could be considered morpholexically predictable. Taking this approach, however, would ignore patterning which parallels patterns occurring elsewhere; consequently, the phonemic shape of <iNбу> is considered predictable by morphophonemic rules;

l.a, b. <b>: /p/, /w/. There are counterexamples to this alternation: cp. /čěrehẹp·a·ʔ/ 'he was asked to go'; /kwěrehepe·ki·kaʔ/ 'he went to ask them to go'; /kwěrehewe·ki·kaʔ/ 'you(pl) were asked to go'.

l.a. <N>: /m/, /·/. The predictability of this alternation is unique to the distribution of <iNбу>; however, the alternation is parallel to <N>: /m/ ~ /·/, /n/ ~ /·/ (cf. 2.b, c, d, and 3.a, b, d, e below).

l.c. <iNбу>: /yú·/. This alternation is unique to this lexeme, but the pattern of contraction is parallel to patterns of contraction accounted for by optional morphophonemic rules; i.e. <iNбу>: *i·wú : /yú·/. It is assumed here that the speakers

*This is not a counterexample; it is included to provide contrast within the set; length is accounted for by another morphophonemic rule.
always make use of the optional rule.

2. <a·hâNpi> 'down on'
   a. /kičá·ha·ʔ/    'You(sg) put it down!'
   b. /kwíča·hámpik/ 'he put it down'
   c. /kwíča·hámpe·keʔ/ 'they put it down'
   d. /kwíča·há·piruk/ 'he put it down'

Here the phonemic sequence /a·ha·/ could be taken as morphophonemically predictable (cf. /tústehé·ʔ/ 'he's going to dance', /kústehempik/ 'he danced'); however, this would necessitate a proliferation of statements to account for a series of alternations limited to the shapes of two lexemes, and there would have to be an addition to the morphophonological symbol inventory to account for forms such as /tí·pti·p/ 'sword fern', /ˈtía·pi·ʔ/ 'Karok', /ˈis·ámpıʔ/ 'village name'. As there is no advantage in a morphophonemic statement in this situation, the phonemic shape /a·ha·/ for <a·hâNpi> is considered morpho-lexically predictable.

The phonemic sequences, /a·hamp/ and /a·ha·p/ (cf. 2.b,c,d) are considered morphophonemically predictable; i.e. <N>: /m/ - / / (note that this
alternation is parallel to the alternation in 3.a,b,d,e).

3. <aNti>, <a•i> 'transitive marker'
   a. /kwá*m·uká*ta•?/ 'I counted'
      /kwá*m·uká*ya•?/
   b. /kwáhus•á*yanta•?/ 'I talked to him'
   c. /kwáhus•aya•yik/ 'He talked to him'
   d. /kwáhus•ayanti•ka•?/ 'he talked to me/you(sg)'
   e. /stáhus•á*tay/ 'talk to someone (pot.)'

In the above set, the phonemic sequences /a•t/, /ant/, /a•y/ and /ay/ represent the problem under consideration. /a•t/ and /ant/ seem to be freely varying (3.a,b). /a•y/ and /ay/ seem to be freely varying (3.a,b,c,e). Forms like /kwí*ti•ma/ 'he's running away' and /kwínta•i•ruk/ 'he's chasing them' support the notion that /a•t/ and /ant/ can be accounted for by the morphophonemic rule that accounts for the alternation /m/ ~ /n/ (cf. 2 above). /a•y/ and /ay/ can be considered part of the contraction patterns mentioned above. Therefore, by means of morphophonemic rules (including the rule for vowel apocope, we can
establish two morphophonological shapes <aNTi> and <a•?i>.

The question now is whether these forms are morpholexical alternants or different lexemes. They are in free variation (3.a) and also are partially in complementary distribution (3.b,d vs. 3.c,e). Their syntactic patterning parallels that of other lexemes, cp. <ehempi> 'iterative' in /kustehempik/ 'a dance', /kustehempehempik/ 'a dance hall'.

It seems best to assume, as has been done, that <aNTi> and <a•?i> are different lexemes, i.e. dialectal variants, with equivalent meanings and syntactic distributions and that SS and CW use these forms interchangeably in some syntactic environments, but not in others.

A number of forms in the data presumably are dialectal variants. Such variant representations of radicals are entered in the dictionary. Variant representations of affixes are discussed in appropriate places in the grammar and also are entered in the dictionary.

230. **Obligatory morphophonemic rules.** In contrast to the optional rules, which describe
phonological modifications that can occur anywhere between word junctures, the obligatory rules, which are given below, describe adaptations that occur at lexeme boundaries.

231. **Junctures.** There are three morphophonological junctures: glottalic, internal, and expressive.

231.1 **Glottalic juncture.** The statements about glottalic juncture account for the fact that /ʔ/ has a zero representate in some morphophonological environments;

\[
\emptyset: \overline{\text{ʔ/}} \overline{\text{[# \ [-]V}}
\]
\[
\overline{\text{ʔ/}} \sim \emptyset/ (r,y,w,V) \overline{\text{[#}}
\]

For example,

<apsu>: /ʔápsu/ 'a pipe; <-ečxámpi>: /ʔečxámpi/ 'clear, bright'; <-ixíp'i>: /ʔixíp'i/ 'slippery';
<kwim'à Na>: /kwim'àʔ/ ~ /kwim'à/ 'I saw it';
<kít'àr>: /kit'àrʔ/ ~ /kit'àr/ 'summer salmon';
<awáčay>: /ʔawáčayʔ/ ~ /ʔawáčay/ 'creek';
<t ička xáw>: /t,tičkaxáwʔ/ ~ /t,tičkaxáw/ 'he's going to kill it'.

Cp. forms like <xan'àr>: /xan'àr/ 'leaf';
there are no examples in the data of such forms
occurring with glottalic juncture. Since the morphophonological notation does not distinguish between forms with glottalic juncture and forms without it (there being no evidence that such a distinction is necessary), if a phonemic shape of a lexeme provides evidence for the juncture, that shape will be cited in the dictionary under the appropriate heading.

231.2. **Hyphen juncture.** This juncture, <->, represents a morphophonological environment in which vowel and consonant loss takes place; its phonemic representation is always zero. See 232.1,2 for examples.

231.3. **Expressive juncture.** A phonological statement for this juncture, <!>, has not been completely worked out. <!> marks an intonation contour that occurs with clauses; it is manifested by a rearrangement of tones; e.g.,

<#kurá•#sá•#ké•#wé•#ìv uti#>: /kurá• sá• ké• wé• túti?/ 'What shall I do?'

<#kurá•#sá•#ké•#wé•#ìv uti!#>: /kúra• sa• ke• we• túti?/ 'What in the world shall I do?'

<#má•#!#má•#in•á#sk uti a•?i#: /má• in•á? skítay?/ 'No! Don't do that(to someone)!'

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232. **Loss.** Vowel and consonant loss occur; however, loss is particularly characteristic of the vowel patterning, since the sequence VW is not permissible phonemically.

232.1. **Consonant Loss.** The rules for loss of consonants are as follows,

<table>
<thead>
<tr>
<th>Morphophonological Symbol</th>
<th>Phoneme</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>w</td>
<td>ø</td>
<td>/<a href="m,u,H,-w">v</a>,-r</td>
</tr>
<tr>
<td>w</td>
<td>ø~w</td>
<td>#C[C][v]V</td>
</tr>
<tr>
<td></td>
<td>ø~</td>
<td>s,c[V]</td>
</tr>
<tr>
<td></td>
<td>ø</td>
<td>---</td>
</tr>
<tr>
<td>r</td>
<td>ø</td>
<td>---r</td>
</tr>
<tr>
<td>y</td>
<td>ø</td>
<td>/<a href="y,=sH?i">v</a></td>
</tr>
<tr>
<td>h</td>
<td>ø</td>
<td>/[v]C</td>
</tr>
<tr>
<td>h</td>
<td>ø</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>h</td>
<td>---</td>
</tr>
</tbody>
</table>

Examples are given below,

1. `<kwv ikhyawv me•>`: `/kwîkhyamê•/ 'I heard it'  
   `<kwv uṭis•i Na•>`: `/kútis•a•/ 'I said'  
   `<t ikhyawv Hrakv -ik>`: `/tíkhya•rakik/ 'he heard him behind him'
<kw e'ew -wak a->: /kwé-waka-/? 'he was watching (something) in the water'

<kw -wiʰà:p a'?): /kwí'*payik/ 'he made a pile'

<t im'akw -rakmak'í e>: /tí*akramak'e?/ 'he spread the news'

2. <skw ic'í -ik>: /skwíc'ik/ ~ /skíc'ik/ 'you(sg) are drinking'

<nw'íc'í e'ki e>: /nwic'ėke?/ ~ /nic'ėke?/ 'You(pl) keep drinking!

<ac'ít>: /a'cwit/ ~ /a'c'ít/ 'mother's mother'

<kw'írì asw Na->: /kwíraswa-?/ ~ /kwíras'a-?/ 'I quit'

<kw'írì asw>: /kawá's/ 'You(sg) take it off!'

<sw' -wiʰà:p a'?): /swí'*payik/ 'I'm making a pile'

3. <t icious -ikarkár -rakmak'í e'ki -iru a->:
/tí'čukarkárakmak'ėkira-?/ 'they were lifting a light load here and there'

4. <s iʰay' -ēH'i>: /siʰ'ai/ 'if I/we dream'

<makáy ya# t e'ru kar -ik>: /makáya tér'rukarkik/ 'Did you(sg) ask him?'
5. <y antu·hə me·ʔ> : /yántu·meʔ/ 'we mentioned it'

6. <ap·ak hi·ʔ> : /ʔáp·akí/ 'mother's brother (ref.)'
   <acmu hi·ʔ> : /ʔácmuhiʔ/ 'father's father (ref.)'

232.2 Vowel loss. The rules for loss of vowels are as follows,

<table>
<thead>
<tr>
<th>Morphophonological</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>Phoneme</td>
</tr>
<tr>
<td>1. v</td>
<td>ø</td>
</tr>
<tr>
<td>2. u</td>
<td>ø</td>
</tr>
<tr>
<td></td>
<td>w</td>
</tr>
<tr>
<td></td>
<td>u</td>
</tr>
<tr>
<td>3. V (when V≠u)</td>
<td>ø</td>
</tr>
<tr>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

As can be seen in Rule 1 above, there is no phonemic representation for <v>. The evidence for it consists of contrasting tonal patterns (cf. I.236 for description of tonal alternations); cp. the following,

<kwə ap·ɪ i·ma·ʔ> : /kwap·ɪ·ma/ 'I threw it thither'
<kw ap·ɪ i·ma·ʔ> : /kwáp·ɪ·ma/ 'he's throwing it thither; you (sg) threw it thither'
<kw a·m̃v a·qí -ik>: /kwá·m̃a·qíik/  'he's fishing with a hook and line'

<k̃w a·m̃uk̄ a·qí -ik>: /kwá·m̃uká·qíik/  'he's counting'

(cp. <kw am·a ka·hú -ik>: /kwám·aka·húk/  'he's up on a high place watching')

Examples of Rule 2 are given below,
<k̃w ičkú uhi Hma>: /kwíčkuhi·ma/  'he ate after the ceremony'

(cp. kw e·cní· uhi Hma>: /kwe·cnuhi·ma/  'he sang for the burial service')

<k̃w ičkú a·ki e>: /kwíčkwa·ke>/  'they are eating'
<k̃v ičkú>: /kičkú/  'You(sg) eat!' (cp. <kv i·pu>: /kí·pu/ : 'You(sg) bathe!'

Rule 3 accounts for the patterns of apocope and apheresis that occur in Shasta. Apheresis is marked by <-->, the "hyphen" juncture (cf. 231.2). There are a number of exceptions to the apheresis rule, e.g. <kwv umpí -ehé·wí i·ma>: /kúmpihé·wi·ma/<~ /kúmpéhé·wi·ma/ 'I swam downstream', <t is·i· aw -ik>: /tíš·awik/ ~ /tíš·awk/ 'he stayed a short while'. It has not been possible to determine a
predictable or partially predictable pattern for these exceptions; therefore, they are presumed to be representative of lexemic variants.
233. Nonloss consonant alternations. The predictable alternations are limited to changes involving the sonorants /r/, /n/ and /w/. Other consonant alternations are sporadic and are considered indicative of lexemic variants.

233.1. Lexemic variants. The unpredictable changes include alternations between glottalized and unglottalized stops, the affricated stops, the apical and velar stops, the apical sonorants, the apical and labial sonorants, labials and glottals, the velar and glottal spirants, and the glottals. Examples follow.

<at•i> \sim <at•i> as in /rát•aykam•ak/ 'he's hasing me'; /rá•ayka/ 'he's chasing him' (see also, <ap•a> as in /ráp•aka/ 'he's carrying an armful' and <ap•i> as in /ráp•a/ 'let him throw a round object').

<xacki> \sim <xaški> 'three'
<tu•čá> \sim <ku•čá> 'what'; <tura•> \sim <kura•> 'where'.

<tuk•urú•ni> \sim <tuk•unú•ni> 'buckskin';
<iri•xá> \sim <inike•xá> 'old lady'.
<tuntùn•u> \sim <tamtam> as in /kwán•ituntun•uruk/
~ /kwán·itamtamik/ 'he's drumming' (cp. Atkgewi verb root tom 'to drum').

<iiwi> ~ <iihi> 'animal hair' (cf. CW <i·ʔi> 'fur').

<a·pu> ~ <a·hu> 'older brother'
<a·pv> ~ <a·v> as in /ráka·ʔa·ʔ/ ~ /ráka·pa·ʔ/ 'he's standing up in something'

<nah·ú> ~ <in·axa·> 'cedar'
<hay> ~ <ʔay> as in /ʔwat·ʔwákhaywa·ʔ/ ~ /ʔwat·ʔwákʔaywa·ʔ/ 'he kept on going around the circle'.

233.2. Sonorant alternations. The sonorant alternations are predictable in only one environment, namely before the pausal perfective marker <Na·>. There is a tendency to extend the alternations into other environments; the conditioning factors determining this extension are unknown.

<r> represents the following alternation:

r: n/uuNa·/, for example,

<y e·wi e·ki -iru Na·>: /yé·we·kin·a·ʔ/ 'we are swimming around (perf.)'; (cp. <y e·wi e·ki -iru a·>: /yé·we·kira·/ 'we are swimming around (dur.)'

<kwì eru ka·r Na·>: /kwéruka·n·a·ʔ/ 'I asked
about it (perf.).'

The following counterexamples have been taken to be evidence of dialect mixture,³

(SS) /ráwaswin·u/ 'let him take away a container having objects distributed in it'

(CW) /kawás·ir/ ~ /kawás·in·u/ 'you(sg) take away the container having objects distributed in it'

(SS) /'kwáwaswe·kira·?/ ~ /'kwáwaswe·kin·a·?/ 'he took the container . . . away from them'

It is assumed that there are two representations of the distributive marker, <-iru> and <in·u>.

<b> represents the following alternation:

\[ b: \text{p/} \_\_\_\_[u]Na· \]
\[ w/ _ _ _ \]

Examples are:

<č eru eheb Na·>: /čérehep·a·?/ 'he was asked to go'.

<kw am·ar iNbú Na·>: /kwám·arimpá·?/ 'those two are fighting'.

<t eru eheb -ik>: /térehewik/ 'he asked him to go'.

<kw am·ar iNbú e·ki e>: /kwám·ari·wé·ke?/ 'they are all fighting'.
Again, there are counterexamples:
cp. (SS) /kwérehpe·ki·kaʔ/ 'he went to ask them
to go'; /kwérehewe·ki·kaʔ/ 'you(pl) were asked
to go'; /kwérehepi·kaʔ/ 'I was asked to go'.

In the first two examples, /p/ and /w/ are in contrasting environments; in the third example we find /p/ instead of the expected /w/. It is concluded from this evidence that there are two lexemes <eheb> and <ehep> with the same meaning and syntactic distribution. This conclusion is supported by the forms /yéhiyawaʔ/ (CW) ~ /yéhiyap·aʔ/ (SS,CW) 'we are getting dressed' for which it is necessary to set up two radical lexemes <ehiyaw> and <ehiyab>.

<h> represents the following alternation:
\[ h \sim w/u\_V \]; for example, <kw e·cni· uhi Hma>:
/kwé·cnuhi·ma/ ~ /kwé·cnuwi·ma/ 'he was singing
for a burial service'; <kv epxù har>: /kepxúhar/ ~ /kepxúwar/ 'You(sg) blow!'.

234. Alternations with length. There are two alternations with length, sporadic and predictable.

234.1 Lexemic variants. There are unpredictable alternations between short vowels and long vowels,
single consonants and consonants plus length and length and consonants. There are also alternations between /ʔ/ and /ˈ/. Examples follow.

\[\text{<u·pči> ~ <upči> as in /čú·pči•a•?/ ~ /čúpči•a•?/ 'he got elbowed/shouldered'.}\]

\[\text{<Na•> ~ <Na> as in /kupči•a•?/ ~ /kupči•a•?/ 'I elbowed/shouldered him'.}\]

\[\text{<i·ču> ~ <iču> as in /či·ču•ta•ʔ/ ~ /čiču•ta•ʔ/ 'he gave it to him'.}\]

\[\text{<i•kτ> ~ <i·kτ> ~ <i·kτ> as in /kíka·čik/ 'the way the Shasta use their language', /swí·ki·wáyayik/ 'I'm teaching her to talk/sing', /kwík·i·waykák/ 'it sounds like (a dog)'.}\]

\[\text{<a·m•ʔv> ~ <a·m•v> as in /kwá·m•a·kayra•ʔ/ ~ /kwá·m•a·kayra•ʔ/ 'they are fishing with hook and line'.}\]

\[\text{<u·ma> (SS) ~ <upma> (CW) as in /kú·mapnuk·uk/ ~ /kúpmapnuk·uk/ 'it sticks'.}\]

\[\text{<eheʔ> ~ <ehe•> ~ <ehe> as in /kwéhe•n·ucwik/ (CW) ~ /kwéhe•n·ucwik/(SS) 'he jumped up', /kwéhečuk·u·ma/ 'he jumped from here to there'.}\]

234.2. **Predictable alternations.** It is possible to predict an alternation between vowel
plus length and vowel plus nasal (<N>). There is also a predictable alternation between V* and C* (<H>).

<N> represents the following alternations:

<table>
<thead>
<tr>
<th>Representation</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. m ~ p</td>
<td></td>
</tr>
<tr>
<td>2. n ~ t</td>
<td></td>
</tr>
<tr>
<td>3. m b[u]Na*</td>
<td></td>
</tr>
<tr>
<td>4. (Vp,Vb,r,h)[V] b[u]</td>
<td>(when b[u] is not followed by Na*)</td>
</tr>
<tr>
<td>5. ∅</td>
<td></td>
</tr>
</tbody>
</table>

Examples are,

1. <kw ip'i iru tì eheNpi e'ki e>: kwíp'irutehempe'ke?/ 'They are tying up a bunch (of horses)'
   <kwíp'i iru tì eheNpi iru Na*>: /kwíp'irutéhe'pin'a*/ 'I tied up a bunch of things'

2. <kwíw -aNti Na*>: /kwíwanta*/ 'I bought it'
   ċ i'ču -aNti Na*>: /čí·ču·ta*/ 'He gave it to him'

3. <sw ahu wak'i iNbú Na*>: /swáhuwak·impá*/ 'I'm opening my mouth'

4. <ċ eru ehep Na*>: /ćerehep·a*/ 'He was asked to go'.
<y ari hu*p Na>: /yárihu*p*a*/ 'we felt sorry for him'
<kw am*år iNbú e*ki e>: /kwám*ari*we*ke*/ 'they are all fighting'
<y u*mata*há Na>: /yu*mata*há*/ 'we got mad'
<č am*år Na>: /čám*an*a*/ 'he got beaten'
<y usti ehèXpi*...cw Na>: /yústehempicwa*/ 'we got through dancing'
<kw* e*cní* Na>: /kwe*cná*/ 'I sang'
<kw* ičkú Na>: /kwičkwá*/ 'I ate'
<H> represents the following alternation (in this rule, V= any short vowel; V'= any long vowel), H: Ø/V-, (y,w,[v]-V____.
'/_ _ _

Examples are:
<aní* -éHtu>: /ºaní*tu*/ 'mother's'; <ičway -éHtu>: /ºičwáytu*/ 'wildcat's'; <sr i*hayv -ih?i>: /srí*há?i/ 'if he dreams'; <ča*ráw -eHtuńú>: /ča*ráwtuhú*/ 'at the head end of the body'; /sr ikhyawv -ih?i>: /sríkhyáw?i/ 'if he hears it';
<śi ikhyawv Hrakv -ik>: /tíkhyá*rikik/ 'he heard him behind him'; nwv i?*i cw -ékHa>: /ní*ičwik*a*/ 'You(sg.) pick it up!'
235. **Nonloss vowel alternations.** The sporadic alternations in the data seem to be due in part to assimilation and in part (possibly) to remnants of an ablaut pattern that played a derivational role.

The predictable alternations are of two types, (1) a partly predictable alternation between /a/ and /i/, and (2) an assimilatory pattern for vowels in which the set of apical consonants and the set of nonapical consonants contrast as conditioning environments.

235.1. **Lexemic variants.** Examples of lexemic variation are given below. Group 1 is made up of examples of variations thought to be due to assimilation. The forms in group 2 are thought due to ablaut.

**Group 1.**

\(<a> \sim <e>\)

ahaNpi ~ eheNpi  \quad \text{'down on'}

\(\check{c}a\cdot ?a(CW) \sim \check{c}e\cdot ?a(SS)\)  \quad \text{'one'}

\(<a> \sim <i>\)

\(\hat{t}akas(CW) \sim \hat{t}ikis(SS, \text{\textup{CW}})\)  \quad \text{motion involved in sticking something in/on something'}
\(<a>\ ~ <u> ~ \text{uk} \cdot \text{ar} \cdot \text{i}(\text{SS}) ~ \text{ak} \cdot \text{war} \cdot \text{a}(\text{CW}) ~ \text{a lot of}'
\suk(\text{CW}) ~ \text{sakw}(\text{SS}) ~ \text{bulb(var.)}'
\tam\text{tam} ~ \text{tuntun} \cdot \text{u} ~ \text{motion involved in drumming}'
\</i> \ ~ <u> ~ \text{\text{-i}cu} \cdot \text{kiní} \rangle ~ \langle \text{-či} \cdot \text{kiní} \rangle ~ \text{'slender'}
\See also <\text{inaku} \cdot \text{na}> ~ <\text{iniku} \cdot \text{na} \rangle ~ <\text{inuku} \cdot \text{na}> ~ \text{‘buzzard’}, <\text{ipsíra}> ~ <\text{ipsína}> ~ \text{‘arrowwood berry’}.
\Group 2.
\text{upči} ~ \text{upči} ~ \text{‘with elbow/shoulder’} (\text{cf. 210.4.1 for <u} \cdot \text{pči}>)
\langle \text{ehena}(\text{nt.}), <\text{eheni}(\text{vt.}) ~ \text{‘tongue’}; <\text{ac} \cdot \text{a} ~ \text{‘water’}, <\text{ič} \cdot \text{i} ~ \text{‘drink’}(\text{cp. <uč} \cdot \text{i} ~ \text{‘precipitate as rain does’}; <\text{a} \cdot \text{ka}(\text{vt}) ~ \text{‘carry on back (e.g. a deer’)}, <\text{i} \cdot \text{ki}(\text{vt}) ~ \text{‘carry on back (e.g. pack-basket’)} (\text{cp. <uxu}(\text{vt}) ~ \text{‘carry on back (e.g. sack’}), <\text{ehe} \cdot \text{či}(\text{vt}) ~ \text{‘carry on back by means of a packstrap’}.

235.2. \text{Predictable alternations.} \text{The alternation between /a/ and /i/ represents a partially predictable pattern and is symbolized by <\i>}. \text{The pattern is as follows,}

\begin{align*}
\i & : a/\_\_\# \\
\i & : i/\_\_ \\
\end{align*}

\text{Take the following sets, for example,}
<iʔ•i> as in: /kiʔ•aʔ/ 'You(sg) take it!
/kíʔ•iʔax/ 'You(sg) put it out into it!
/kíʔ•ika•huʔ/ 'You(sg) take it inside!

<at•ì> as in: /kat•áʔ/ 'You(sg) go!
/kát•íc•ay/ 'You(sg) go after him!
/kát•ika•húʔ/ 'You(sg) go up the creek!

<im•ì> as in: /rím•aʔ/ 'Let him see it!
/kwím•ik/ 'He sees it

<umpì> as in: /kumpáʔ/ 'You(sg) swim!
/rúmpikwaya•kaʔ/ 'he's swimming upstream
/kúmpihé•wi•ma/ 'I swam down the creek'

Although the above examples demonstrate the regularity of the pattern, there are numerous counterexamples,

<irt> as in: /kíraʔ/ 'You(sg) reach!
/kíričaxir/ 'You(sg) put it out into it!
/kírakasac/ 'You(sg) toss it up overhead!'
<ca' as in /ká'ú·ca·m·a/ ~ /ká'ú·ca·mi/
'You(sg) hold on tight!' (In the data, the most frequent sequence found before juncture is /ca·m·i/)

<irax> as in /kíraxačúm·u/ 'greyheaded'
/kwíraxiwakirik/ 'he washed
his hair'
/kwíraxapuk·ucwik/ 'he pushed it up with the top of his head'

In spite of the number of counterexamples, it is assumed that the alternation as stated is the underlying pattern; therefore, lexemes whose representations give evidence for the alternation are marked by <i>. If there are exceptions to the rule, statements about the irregularities accompany the dictionary entry.

<e> symbolizes an assimilatory alternation,
\[ e: i/(e[·]C), T \]
\[ V_1/V_1P \] (when \( V_1 \neq e \))

Examples are,
<e·x -éChu> : /e·xíc·u?/ 'a village at the mouth of Canyon Creek'
"kwač' -ê'kHa" : /kwacík'áʔ/ '3rd pers. sg. pron.(dem.)

<yah'ar -ê'htu> : /yáh'ari'tuʔ/ 'the child's'

<kwas -ê'hta> : /kwasi'taʔ/ 'digging stick (instr.)

<acwit -ê'guna> : /qác'iti'na/ 'grandmother(addr.)

<uy -ê'hta> : /óuyí'ta/ 'eye' (instr.)

<i'kan'kan'ak'áʔ> : /i'kan'kaník'áʔ/ 'a marble(dem.)'

<a'k -ê'hta> : /óka'ká'ta/ 'bone (instr.)

<čik -epá'k> : /čikipá'k/ 'muddy water'

<xuk -ê'kHa> : /xukúk'áʔ/ 'coals(dem.)

<ma'na'cá'x -eknak> : /má'na'cá'xaknak/ 'a big skunk'

There is one counterexample to the above rule, /yá'kamí'taʔ/ 'cloth(instr.); <ya'kam> is a borrowing from Chinook jargon.

236. Tonal alternations. There are two types of tonal pattern in Shasta, junctural and lexical. These patterns are manifested through the behavior of four tonal morphophonemes, <`>, `<`, `<"`, and unmarked (represented in the rules by the breve, ' ').

The junctural pattern, so-called because the
tonal alternation is associated with the first vowel following word juncture (when V≠ <v>), is a 'regularizing' tendency in Shasta for the first syllable of the phonemic shapes of all words to occur with high tone (except when the second syllable has a high tone). There are counterexamples to this pattern; for example, /ʔán·ití/ ~ /ʔan·ití/ 'aunt(voc.)', /kári·wáʔ/ ~ /kári·wáʔ/ 'brother', /ʔáp·akík·aʔ/ ~ /ʔap·akík·aʔ/ 'uncle(ref. -dem.)', /stíkhyewé·kiʔ/ ~ /stíkhyewé·kiʔ/ 'You(pl) will hear it', /skíkhyewe·ki·ʔiʔ/ ~ /skíkhyewe·ki·ʔiʔ/ 'if you(pl) hear it'. In forms such as these, the tone on the first syllable freely varies between high and low if the third or fourth syllable occurs with high tone; if there is no high tone on the third or fourth syllable, the tone on the first syllable will always be the high tone.

It has been assumed for forms like the ones above, that the first vowel occurs morphophonemically with the unmarked tone and that the phonemic representation, with high tone ~ low tone, is predictable.
The lexical pattern is made up of tonal alternations that occur when lexemes are juxtaposed between word boundaries. The following "principal parts" presentation of a set of verb forms will afford the reader a cursory impression of the complexities of the patterning. (The examples are phonemic and are organized by verbal prefix; the symbols accompanying the prefixes are: D=declarative mode, H=hortative mode, l=first person, 2=second person, 3=third person, s=singular, p=plural, Pa=past tense.)

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Code</th>
<th>'kill'</th>
<th>'dream'</th>
<th>'bathe'</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;kw&gt;</td>
<td>D3Pa</td>
<td>kwíčkaxáwik</td>
<td>kwíhayk</td>
<td>kwípuk</td>
</tr>
<tr>
<td>&lt;kwv&gt;</td>
<td>DlsPa</td>
<td>kwíčkaxáwa?</td>
<td>kwíhaymé?</td>
<td>kwípa?</td>
</tr>
<tr>
<td>&lt;y&gt;</td>
<td>DlpPa</td>
<td>yíčkaxáwa?</td>
<td>yíhayme?</td>
<td>yípa?</td>
</tr>
<tr>
<td>&lt;k&gt;</td>
<td>H2</td>
<td>kíčkaxáw?</td>
<td>kiháy</td>
<td>kípu?</td>
</tr>
</tbody>
</table>

In all the examples, the occurrence of high tone on the first syllable is predictable in terms of the junctural pattern rules. In the forms for 'kill', the regularity of the high tone on the third syllable is due to the fact that the syllable happens to coincide with the lexeme <xáw>, and the conditions under which <'> may
be low tone or zero are not present. In the forms for 'dream', the seeming "displacement" is due, primarily, to (1) the junctural pattern rules and (2) the rules for the phonemic representations of <\textquoteright >, which occurs in the morphophonological shapes <kw\textquoteright>, <k\textquoteright>, and <i\textquoteright>\textperiodcenteredhay\textquoteright> 'dream'. In the forms for 'bathe', the regularity is the result of the junctural pattern rules and the rules for <\textquoteright > and unmarked tone.

The merging of junctural and lexical patterns, especially in the verb system, produces a regularity of phonemic tonal configurations that suggests the possibility of a classification of verbs according to tonal configuration types. To quote deAngulo and Freeland (page 91), "Shasta verbs might well be divided into two groups, according to whether or not they are subject to tone-displacement". However, in the preceding paragraph they comment that although 'in a large number of verbs, this tonic accent [i.e. high tone] on the initial syllable seems to be an essential semantic characteristic of the radical, and is never lost in any of the forms of the verb
[;] in the rest of the verbs, the shifting of the accent away from the first syllable is a very characteristic factor in the formation of certain of the modes and tenses [and] just what syllable will then receive the accent must be ascertained separately for every verb." In other words, the association of a phonemic tone pattern with a subset of verb constructions is a fortuitous byproduct of the juxtaposition of lexemes participating in the verb constructions. It is not just the case that this 'regularity' is only apparent; it is also the case that classes based upon such a regularity would be nonsignificant, both syntactically and semantically.

The nonverbal system in Shasta does not display such regularity of phonemic tone configurations. There are partial patterns that are characteristic of constructions if those constructions contain particular lexemes. Again, however, the patterns are fortuitous. Let us take, for example, the noun themes <umé> 'child' and <e·xa·> 'bear', and the suffixes <epsi> 'pitiful', <xa·yxér> 'paucal diminutive', <yá·war> 'collective',
<-éhtu> 'possessive', <-túk> 'locative', <-échú> 'ablative'. With these forms we can form substantival constructions, e.g. (the following forms are phonemic),

?umé·psi 'the pitiful child' ?é·xa·psi 'the pitiful bear'

?umé·xa·yxér 'the babies' ?é·xa·xa·yxér 'the bearcubs'

?umé·yá·war 'the children' ?é·xa·yá·war 'the bears'

?umé·tu? 'child(poss.)' ?e·xá·tu? 'bear (poss.)'

?umé·tük 'child(loc.)' ?e·xa·tük 'bear (loc.)'

?umé·cu? 'child(abl.)' ?e·xa·cu? 'bear (abl.)'

?umé·psixa·yxerí·tutukúc·u? 'from the pitiful babies' place'

?umé·psiyá·warí·tutukúc·u? 'from the pitiful children's place'

?umé·xa·yxerí·tutukúc·u? 'from the babies' place'
'umé•yá•warí•tutukíc•u'  'from the children's place'
'umé•yá•warí•tutuk    'at the children's place'
'umé•xa•yserí•tutuk    'at the babies' place'
'έ•xa•xa•yserí•tutuk    'at the bearcubs' place'

And so on.

As can be seen from the above examples, it is the morphophonological shapes of particular lexemes and the junctural pattern rules that determine the tonal pattern for any one phonemic representation of a construction. In the rules that follow, the junctural pattern rules cannot be applied until after the lexical rules.

For purposes of making the tonal alternation statements, it is necessary to introduce the following symbols: ^ = ', '; V= locus of tone in relation to conditioning environment; ...V...# stands for "anywhere V occurs before #"; c= consonant, consonant cluster.

236.1. Lexical pattern rules. Again, as with the vowel, consonant, and length alternations, it is necessary to point out exceptions to the statements accounting for tonal modifications, e.g. <?wɔ a•?a•?i -ik>: /?wɔ•?a•? •ik/: ~
/wɔ•?a•? •ik/ 'she pulled at it', <?wɔ is•?i -k>:
/ˈwis·ık/ ~ ˈwís·ık/ 'he said', <t ehíyab e·ki e>:
/téhiyawe·keʔ/ ~ /tehíyawe·keʔ/ 'they got dressed'.

As is the case with the junctural pattern (cf. discussion in 210.6 and fn.6), it is not known whether these exceptions are evidence of dialect variation or evidence of an ongoing change that affects the whole language.

The rules are presented below in tabular form. Examples follow the presentation. The numbers associated with an example corresponds to rule numbers.

<table>
<thead>
<tr>
<th>No.</th>
<th>Symbol</th>
<th>Phoneme/Preceding Locus Following</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>^</td>
<td>Ɂ̂ - Ɂ</td>
</tr>
<tr>
<td>1b</td>
<td>ø</td>
<td>Ɂ  V,me:,Na·</td>
</tr>
<tr>
<td>2a</td>
<td>Ɂ̂</td>
<td>Ɂ̂ #</td>
</tr>
<tr>
<td>2b</td>
<td>(w,w)Ɂ</td>
<td>...Ɂ...#</td>
</tr>
<tr>
<td>2c</td>
<td>Ɂ̂</td>
<td>Ɂ øV</td>
</tr>
<tr>
<td>3</td>
<td>Ɂ̂</td>
<td>Ɂ ø[V]-Ɂ</td>
</tr>
<tr>
<td>4a</td>
<td>(Ɂ̂,Ɂ)N,Ɂ̂</td>
<td>Ɂ</td>
</tr>
<tr>
<td>4b</td>
<td>(Ɂ̂,Ɂ)m</td>
<td>Ɂ #</td>
</tr>
<tr>
<td>4c</td>
<td>Ɂ̂</td>
<td>øV, [-]V, (w,y[V]-Ɂ̂)</td>
</tr>
<tr>
<td>5a</td>
<td>&quot;</td>
<td>Ɂ̂ ø-V</td>
</tr>
<tr>
<td>5b</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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1a,3,4c  <ipxa·n·a· há·ki -échU>: /ʔipxa·n·a·kíc·u?/
   'from the lake country'

1b,2a,4c  <čv i·hayv>: /či·háy/ 'we're going to
dream'

1a,5a,5b  <umé· -ëpsi ya·war -éHtu tůk -échU>:
   /ʔumé·psiyá·warí·tutukíc·u?/
   'from the pitiful children's
   place'

2c,5b  <ipxa·n·a· tůk>: /ʔipxa·n·a·tůk/ 'in
   the lake'

1a,4b  <sr i·hayv -éHpi>: /srí·hápo/ 'if he
dreams'

1b,2b  <kwv a·xi·wi eheNpi ika·>: /kwa·xi·wehempika·?/
   'I took him along home'

1b,4a  <kwv ičků Na·>: /kwičkwá·?/ 'I ate'

236.2.  **Junctural pattern rules.** The remarks
made in 210.6 about the junctural pattern, together
with the following statement, describe the occur-
rence of phonemic high or low tone on the first
syllable of a word: ' : ' ~ Ø in the morphophon-
ological environment, /#[Ø[ʌ]]V/ when the immediately
following V=V, unless the phonemic product of the
lexical pattern rules is high tone on the second
syllable of a word, cp. <išway>: /ʔišway/ 'wildcat'; <išway ya·war>: /ʔišwayá·war/ 'wildcats'; /išway -éHtu>: /ʔišwáytuʔ/ 'wildcat(poss.)'; <sr i·hayv -éHʔi>: /sri·háʔi/ 'if he dreams'.

240. Optional morphophonemic rules. The optional morphophonemic rules account for consonant syncope and vowel contraction which can occur anywhere between word junctures.

241. Consonant syncope. Optional syncope affects the nonapical consonants <ʔ, h, ḥ, b, w, k, x> when they are intervocalic. Syncope of <k, x>, which is sporadic, has been accounted for in terms of lexemic variation, e.g. <a·ykák> ~ <e·yà·k> as in /kúwata·ykák/ ~ /kúwate·yá·k/ 'I wanted to...', <xa·yxér> ~ /xé·r> as in /ʔé·xa·xa·yxér/ ~ /ʔé·xa·xé·r/ 'bearcubs'.

The rules for syncope of <ʔ, h, ḥ, b, w> are given below (G=ʔ, h, ḥ; W=b, w; vowel length (i.e. <··N> is irrelevant).

<table>
<thead>
<tr>
<th>Morphophonological</th>
<th>Phoneme</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>Phoneme</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>G ~ Ǿ</td>
<td>V₁~V₁; i(e, a, u); (e, u) i</td>
</tr>
<tr>
<td>W</td>
<td>W ~ Ǿ</td>
<td>a a; i u</td>
</tr>
</tbody>
</table>
For examples see below (242.)

242. **Vowel contraction.** Once the syncope takes place, there is vowel contraction ($\mathcal{C}$=syncopating consonant),

\[
\begin{array}{c|c}
V_1[\cdot] & \emptyset \\
V_1\cdot & V_1[\cdot]\mathcal{C} \\
i[\cdot] & y \mathcal{C}(a,u,e),((a,u,e)[\cdot])\mathcal{C} \\
u[\cdot] & w \mathcal{C}_i, a[\cdot]\mathcal{C}
\end{array}
\]

For example,

/kat i' i/ ~ /kat i/ 'You(pl) go downstream'

/kwé' e' kik/ ~ /kwé' kik/ 'it's cooked'

/ká' a' kakiru?/ ~ /ká' kakiru/ 'You(sg) drag it away!

/kú' uta's/ ~ /kú' ta's/ 'a skillet'

/kwíhi yi' ka?/ ~ /kwí' yi' ka/ 'he came to visit me'

/kwát' ehé' ha'ma/ ~ /kwaté' ha'ma/ 'he went across'

/rikahakwa'ya'/ ~ /rika' kwa'ya/ 'he is dressed up'

/káp' uhú'/ ~ /kap' ú'/ 'You(sg) leach acorns!

<acmu hí>: /'ácmuhí/ ~ /'ácmwí/ 'grandfather(ref.)'

/yú' hikwa'ya'/ ~ /ywí' kwa'ya/ 'he walked up the hill'
/ʔahúčuʔ·uʔ/ ~ /ʔáwché·uʔ/ 'beard' (cp. /ʔáw/ 'mouth')

When the morphophonological sequence <u[·]Qi> occurs, there are two types of contraction possible; e.g., /kwípxuʔi·k/ ~ /kwípxuyk/ ~ /kwípxwi·k/ 'he's smoking something out of a hole' (cp. <uy> ? <wi> 'eye').

There are exceptions to the above rules in some environments, i.e. when the morphophonological sequence is <V@(i,u) V>, <V@(i,u -V>, or <V@(i,u) Na•>. Further study is needed before a definite statement can be made about these exceptions.10
250. **Morpholexical Rule Inventory.** The lexemes to which morpholexical rules apply are listed below, accompanied by cross references to the sections in the description where discussion appropriate to the morpholexical rules is found.

<table>
<thead>
<tr>
<th>ahá·w</th>
<th>412.2.2.2</th>
<th>cw</th>
<th>412.2.2.2.1.2</th>
<th>ċa·ká</th>
<th>422.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>aka</td>
<td>412.3.2.1.2</td>
<td>še·?a</td>
<td>422.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aNti</td>
<td>412.2.3</td>
<td>ḥi</td>
<td>422.1.2.1.2.2</td>
<td>kwač</td>
<td>422.3</td>
</tr>
<tr>
<td>asw</td>
<td>412.2.2.2</td>
<td>kwač</td>
<td>422.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a·?i</td>
<td>412.2.3</td>
<td>kwač</td>
<td>422.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ehé·ha·w</td>
<td>412.2.2.2</td>
<td>kwa·?i</td>
<td>422.2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ehéNpi</td>
<td>412.2.6</td>
<td>ma·ká</td>
<td>422.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i·</td>
<td>p.171 fn.</td>
<td>ma·?i</td>
<td>422.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ika·</td>
<td>412.3.2.1.2</td>
<td>wáha·w</td>
<td>412.2.2.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ipsiru</td>
<td>412.2.2.2</td>
<td>wa·te·há</td>
<td>422.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-ik</td>
<td>412.3.2.1.1</td>
<td>xuk·a</td>
<td>422.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-éHtu</td>
<td>421.4</td>
<td>ya·?a</td>
<td>422.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iru</td>
<td>412.3.</td>
<td>yí·</td>
<td>412.2.4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>?iNbu</td>
<td>412.2.2.2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>?i·rú</td>
<td>422.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Morphophonology
(Footnotes)

1. It is interesting from the comparative point of view to note that there is no morphophonemic alternation between glottalized and unglottalized consonants. Glottalization vs. non-glottalization falls into the category of unpredictable alternations (cf. I.210.3.1.).

2. The Atsugewi form is from data collected by Leonard Talmy, who worked with an Atsugewi speaker during the summers of 1964-65 under the auspices of the Survey of California Indian Languages. The form is in morphophonemic transcription.

3. deAngulo and Freeland, in their unpublished description of Shasta (p. 98) give the form *yitsura* as the first person plural in the paradigm for the verb 'to dry' in the declarative mode. According to my analysis, the paradigm they give is for the perfective aspect in the declarative mode; the morphophonological shape of *yitsura* would be <yic·uNa·>. There is a form */yic·un·a·?*/ 'we're drying(something)' (CW)
in my data. It would seem that there may have been different dialect forms for the pausal perfective or that in my data the occurrence of <Na·> in the perfective paradigm may be due to analogical change.

4. There are variant forms which cannot be predicted by this rule; e.g. <a·tax> ~ <amtax> 'salt' (<amtax> was identified by SS as ˈka·mátwə).

5. A frequent variant of this form is /ˈwí·ta/.  
6. It is not known whether this variation is evidence of dialect difference or is indicative of an historical change in process that affects the whole language; the speech of both SS and CW contains the variation.

7. The possibility of predicting tonal alternations (and other alternations) in term of a morphophonological syllabic canon was considered; however, all attempts proved fruitless.

8. To quote Sargent Sambo, "in·ˈáyə·war is the word; in·ˈáyə·r is the way of talk." This succinct description of the consonant syncope and vowel contraction in Shasta leaves out crucial information; i.e. in many cases "the way of talk" has
become the morphophonological shape of a lexeme and it is no longer possible to account for the phonemic representation in terms of optional morphophonemic rules. For example, \(<\text{wi'ha'p}>\) as in \(/\text{ywi'ha'panta}\)/ 'we piled it up' is the only first position radical lexeme that begins in a consonant; all others begin in a vowel. It is highly likely that the sequence \(/\text{wi'}/\) is the result of consonant syncope and vowel contraction; however, as there is no evidence for which consonant underwent syncope, there is nothing to do but assume the aberrant shape \(<\text{wi'ha'p}>\).

9. Presumably \(<\text{k}>\) undergoes syncope too; however, there are no examples in the data. It is not possible to state the conditions under which the speakers employ the syncope rules. One obvious difference between the speech of CW and that of SS is due to the fact that CW uses the syncope rules (and the concomitant vowel contraction rules) more often than SS does. Because of this use, CW's speech has an extra vowel phoneme /o/ e.g. \(<\text{ahu}>\), \(<\text{a'ru}>\) : /aw/ (SS), /o/ (CW). It may also be the case that it is necessary to set
up an extra mid front vowel phoneme for her speech, i.e. <a⁰i, ahi> : [E⁺], which would only occur with length; however, as yet this problem is unsolved.

10. The tonal changes resulting from the syncope and contraction are also as yet unaccounted for.
Chapter II

Syntax

300. Introduction to the syntax. The description of syntactic classes and word formation is found in II.400.

Presented here is an overview of Shasta grammatical structure and discussion of quasi-productive derivational patterns.

310. General remarks on structure. The most widely used techniques for expressing relations between grammatical elements are affixation and
compounding. The most important grammatical structures are the clause and the theme.

311. Affixation. Affixation is used in theme formation and in the establishment of relations between the VERB and its satellites.

There are two types of affixation: prefixation and suffixation. All affixes except the verbal prefixes are optional.

The VERB is defined by means of prefixation. Prefixation also has a limited use in the formation of satellite themes.

Suffixation is used in substantive theme formation.

The members of the class ENCLITIC are suffixes that differ from others in that they play no role in theme formation or in the establishment of classes.

Enclitics mark word boundaries, i.e. an enclitic can only be followed by another enclitic (or the clitic) or juncture.

312. Compounding. Compounding is used in the formation of verb radicals and substantive phrases. A compound verb radical can consist of two or
three members. Substantive compounds consist of two or more members. The verb radical compounds are endocentric and coordinate. The noun compounds are endocentric and both coordinate and attributive.

313. The clause. The clause is the most important structure that results from syntactic combination. There are two types of clause, the MINOR and the MAJOR.

A minor clause is verbless. A major clause must contain a verb.

Major clauses are categorized as equational and nonequational. The equational clause must contain a satellite, or another verb. In the nonequational clause all constituents are optional except the verb; therefore, an unexpanded nonequational clause consists of verb, e.g. /'kúwa·tika/' 'He went(somewhere) to buy(something).' In addition to the verb (and optional elements such as the clause marker), an expanded nonequational clause contains satellites that reiterate relationships explicitly or implicitly expressed within the verb,
/táka· ḵúwa·tika·/ 'Someone went(somewhere) to buy(something).'
/sápirí táka· ḵúwa·tika·/ 'Someone went(somewhere) to buy bread.'
/sápirí táka· ḵúwa·tika· stúwatük/ 'Someone went to the store to buy bread.'

The ordering of clause elements is more or less free; however, there are preferred orders, given the presence of certain constructions in a clause.

A clause or a combination of two or more clauses can be a sentence; however, the sentence is insignificant syntactically (it is yet to be determined if the concept of sentence is useful in a description of Shasta narrative style).

314. The theme. The theme is the cornerstone of the syntax. It is any monolexemic or polylexemic sequence that can occur as a word, i.e. that can occur with an enclitic or the clitic.

A theme may consist of a single lexeme or two or more lexemes whose order of occurrence is fixed. A polylexemic theme contains a simple
radical with one or more affixes or a compound radical with or without affixes. The following examples are all themes which share the lexeme <ahu> 'mouth': <ahu> 'mouth' (simple substantive/verb radical); <ahu -is·i> 'talk' (compound verb radical); <ahu -is·i rí·?i> 'talk right' (compound verb radical plus verb suffix); <k'v ahu -is·i rí·?i>: 'plainspoken' (deverbative nominalizing prefix plus verb theme); <k'v ahu -is·i rí·?i é·ki> 'among the Shasta (i.e. the plainspoken)'.

315. Number. In Shasta, number is a lexical phenomenon expressed in the noun substantive and in the verb.

Except for forms discussed in 323, and the pronouns, noun themes are undifferentiated for number. The pronouns are inherently singular or plural. Other noun themes can be optionally marked for non-singularity; take, for an instance, the collective marker <ya·war> as in /'ísyá·war kwehétap·e·ke?/ 'The Indians(coll.) are gambling.' It is also possible to say /'ís kwehétap·e·ke?/, since the verb is marked for collectiveness by the suffix <e·ki>. Lack of
differentiation for number is shown by the occurrence of <is> in /ʔís kwehétp'ik/ 'An Indian is gambling.' ws. /ʔís kwehétp'e·ke?/ 'The Indians are gambling.'

Verbal number consists of singularity, plurality, paucality (i.e. a few), collectiveness (i.e. an unindividuated group), and distributiveness (i.e. an individuated group).

The following paradigm shows some of the kinds of number and how they are expressed. (The forms are phonemic; the paradigm is in the perfective aspect of the declarative mode.) In addition there is marking in the verbs for reciprocalness, which often is used to express the concept of dualness.

**First Person**

<table>
<thead>
<tr>
<th>kwic'á?</th>
<th>'I drank'</th>
</tr>
</thead>
<tbody>
<tr>
<td>kwic'a?</td>
<td>'we drank'</td>
</tr>
<tr>
<td>kwic'e·ke?</td>
<td>'we(coll.) drank'</td>
</tr>
</tbody>
</table>

**Second Person**

<table>
<thead>
<tr>
<th>kwic'ik</th>
<th>'you(sg) drank'</th>
</tr>
</thead>
<tbody>
<tr>
<td>kwic'e·ke?</td>
<td>'you(coll.) drank'</td>
</tr>
</tbody>
</table>
Third Person

'kwic'ik  'he drank'
'kwic'e:ke'  'they (coll.) drank'

As can be seen from the paradigm, the first person prefixes are inherently singular or plural and number is unspecified in the second and third person prefixes.

The first person forms show a differentiation between singular, paucal and collective; i.e., the first person singular prefix and a theme that is unmarked for collectiveness (or distributiveness) forms a construction that is singular, the first person plural prefix and a theme unmarked for collectiveness (or distributiveness) forms a paucal construction. This distinction between paucality and collectiveness (or distributiveness) is unique to the first person verb formation. (Cp.

/yumpihé'wi'ma/ 'we (pauc.) swam downstream;
/yumpihé'wiru'ma/ 'we (dist.) swam downstream').

The marker for distributiveness is <iru>, e.g., /'kwá'yakiruk/ 'they (dist.) passed by (something)',
/kwá’yakniruk/ 'you(dist.) passed by(something)',
/yá’yaknin’aʔ/ 'we(dist.) passed by(something)'.

It is appropriate at this point to note complex semantic relationships that are not within the scope of this descriptive study.

In the preceding examples, the concepts of collectiveness and distributiveness were associated with the subject of the verb, which is marked by the verbal prefixes. In motion verbs, these concepts can be associated with verb subject, object or action. All the logical combinatory possibilities are not expressed, e.g. there are no examples of a verb which simultaneously differentiates distributive subject, distributive object and distributive action. However, it is possible to get such combinations as collective subject, collective object and collective action; or, collective subject, collective object, distributive action. Examples are,

/kwí’pí-iruté·ke·keʔ/ 'they(coll.) led them(coll.) around(coll.)'

/kwí’pí-iruté·kiraʔ/ 'they(coll.) led them(coll.) around(dist.)'

In these examples, collective object is marked
by <i·p·t> (cp. kwir·irute·ke? 'He is leading them around'), collectiveness associated with the subject (or verb action, in the first example) is marked by <e·ki>, and distributiveness associated with verb action (in the second example) is marked by <iru> (the <iru> following <i·p·t> is the radical 'action involving hand/arm').

320. **Quasiproductive features.** There are patterns of derivation whose description cannot be generalized. These quasiproductive patterns involve syntactic ambivalence, the petrification of lexemic sequences, suppletion and reduplication.

321. **Syntactic ambivalence.** It is a general pattern of derivation in Shasta that themes beginning in a vowel can be verb, substantive, or adverb themes. Themes that begin in a consonant can be either substantive themes or adverb themes. The restrictions are semantic. It is also the case that verb themes can be nominalized or adverbialized.

There are analogous patterns of derivation in which some verb suffixes can also occur as adverbs, enclitics, or substantive themes. For
example:
(1) <si·way> occurs as an attributive verb suffix in <t e·xi si·way -iru Hma>: /té·xisi·wayru·ma/
'It is said that she got sick from worrying.', and as an adverb in /sí·way ta·yé·ki?/ 'They might cry.'.
(2) <ča·m·i> occurs as an enclitic in such as <ičkákča·m·i> 'too heavy' and as an attributive verb suffix in the verb <kw á·a· ča·m·i -ik>:
/kwá·a·ča·m·ik/ 'It is storming hard'.
(3) <Hma> 'continuative aspect' occurs as a verb suffix in <t e·xi si·way -iru Hma>: /té·xisi·wayru·ma/
'it is said she got sick from worrying' and as a locative substantive thematic suffix in <a·yax·i Hma> 'again tomorrow'.
(4) <čik> 'mud' occurs as radical in nominal substantive /kíčikícwiruk/ 'a chimney flue' and as the noun, /čik/ 'mud'.
(5) <ka·hú> occurs as a directional verb suffix in
/yúmpika'hu·ma/ 'we swam upstream' and as an enclitic in /'āwáčayka·hú/ 'up the creek'.

In the case of 1,2,4 there is generality in the patterning in that any perception attributive suffix is syntactically ambivalent but it is impossible to predict what the overlapping classes will be.

(3) and (5) are examples of sporadic syntactic ambivalence that is an even less predictable phenomenon than that of the attributive suffixes.

As it is not possible to describe the situation exemplified above with rules of sufficient generality, in the dictionary such syntactically ambivalent lexemes will be accompanied by the class symbols necessary to account for their unique distributions.

322. Petrification. There are sequences that are historically analyzable, but synchronically opaque; in other words, they are petrified combinations of lexemes. <si·way> 'possible' is an example of such a phenomenon. It can be analyzed as <s> 'adverbializing prefix', <i·way> a radical meaning 'perceive' (which in turn could be
analyzed into the verb radical <i·w> and the transitive marker <a·?i>). However, it is not possible, descriptively, to economically account for the embedding of such a construction as prefix plus verb radical within the verb theme; therefore, <si·way> is considered monolexemic.

There is another type of petrified combination, for example:

/tíčkaxáracwik/ 'She bound up the hair on top of the head'
/tíčkapárahampik/ 'She bound up the hair in back of the head'
/tíčkahárahampik/ 'She undid the hair'

In these examples the sequences <xára>, <pára>, and <hára> are being considered. Here we find the recurrent partial <ára> and the unique elements <x>, <p>, and <h>. It is not possible, however, to account for these segments synchronically, therefore they are treated as single lexemes.

323. Suppletion. Suppletion is associated with the concept of number discussed in 325. There are three examples of suppletion which are not associated with number; these are the verb radicals
<is·i>, <ik·i> 'sound', <utis·i>, <utik·i> 'speak' and <i·i>, <ik·i>, 'be(momentaneous)'. The alternation between <i·i> and <ik·i> is morpholexical. The other two alternations are lexemic variants.

Suppletion occurs as a nonproductive pattern in the verb theme formation. The only examples of suppletion occurring elsewhere in the corpus are two examples among the noun themes:

/súk·ax/ 'boy'; /súk·axyá·war/ 'boys';

/ò·warár/ 'boys(paucal)'
/kíyaxá?/ 'girl'; /kíyaxáyá·war/ 'girls';
/yač·ápxa·/ 'girls(paucal)'

The suppletion in the verb theme formation involves both monolexemic and dilexemic radicals. For instance the radical in /kwícmasa·ka?/ 'He's sleeping' is analyzable into <icma si·> whereas the radical in /kwí·wan·aka?/ 'They are sleeping is <i·wan·i>. On the other hand the radical in /kuč·í·ka?/ 'He fell.' is <uč·i> whereas the radical in /kwárakwí·ka?/ 'They fell.' is <ara kw> 'linear movement in a vertical manner'.

There is also <i·i·i> in /kwí·aka?/ 'He looked' and <ip·i> in /kwíp·aka?/ 'They looked'. Here the suppletion is monolexemic.
With the verbs that supplet for non-singular it is possible to get both collective and paucal formations in the 1st plural of the verb, e.g. \( /\text{yí} \cdot \text{?a} \cdot \text{?} / \) 'we(paucal) looked' and \( /\text{yíp} \cdot \text{a} \cdot \text{?} / \) 'we (coll.) looked'.

The exact nature of this suppletive pattern- ing is difficult to determine. The only thing that can be said is that suppletion of monolexemic or dilexemic verb radicals marks nonsingularity of subject, object or verb action.

This suppletion does not always occur, e.g.
\[
/\text{kwa} \cdot \text{a} \cdot \text{ča} \cdot \text{m} \cdot \text{i} / \quad \text{He held on tight}'
\]
\[
/\text{kwa} \cdot \text{pič} \cdot \text{a} \cdot \text{m} \cdot \text{e} \cdot \text{ke} / \quad \text{They held on tight}.'
\]
\[
/\text{kwa} \cdot \text{?a} \cdot \text{kaka} \cdot \text{ma} / \quad \text{He dragged it away}'
\]
\[
/\text{kwa} \cdot \text{pika} \cdot \text{kaka} \cdot \text{ma} / \quad \text{He dragged them away}'
\]

but:
\[
/\text{kwa} \cdot \text{?a} \cdot \text{čikwa} \cdot \text{ka} / \quad \text{He pumped}'
\]
\[
/\text{kwa} \cdot \text{?a} \cdot \text{čikwa} \cdot \text{kika} / \quad \text{They pumped}'
\]

It is assumed that the seeming suppletion is semantically conditioned. Therefore, such semantic information must accompany the dictionary entries.

Given below is a list of the suppletive or
apparent suppletive forms found in the corpus,

<icma>  'sleep' /kwícmasa·kaʔ/ 'He slept'

<iwan`i> 'sleep(coll.)' /kwíf·wan·akaʔ/ 'They slept'

<at`i> 'walk' /kwát·akaʔ/ 'He was walking along'

<e'it> 'walk(coll.)' /kwéʔ·akaʔ/ They were walking along'

<i`i> 'look' /kwíf·akaʔ/ 'He looked'

<ip`i> 'look(coll.)' /kwíp·akaʔ/ 'They looked'

<uwu> 'along in space' /kúhukaʔ/ 'He was flying/crawling'

<aha> 'along in space (coll.)' /kwáhakaʔ/ 'They were flying/crawling'

<aki`> 'lean' /kwáki·kwaya·ʔ/ 'He leaned against it'

<a·cwiki> 'lean(coll.)' /kwá·wikikwaya·ʔ/ 'They leaned against it'

<a`a> 'stand' /kwákawa·ʔ/ 'He was standing'

<e·ruka> 'stand(coll.)' /kwé·rukawa·ʔ/ 'They were standing'
<uč'i>  'fall'  /'kuči'ka/?  'He fell'
<arak'w> 'fall(coll.)'  /kwára'kwí'ka/?  'They fell'
<itík'w> 'fall(coll.)'  /kwíti'kwí'ka/?  'They fell'
<iri>  'run'  /kwíri'tipí'kahuk/  'He ran and fell'
<u'mpi> 'run(coll.)'  /túmpitípí'kahuk/  'They ran and fell'
<epxù> 'go out to'  /kwépxu'ma/  'He went out to camp'
<axisu> 'go out to'  /kwáxisa'ki'ma/  'They (the family) went out to camp'
<is'a>  'sit'  /kwí'sa'kni'wá/?  'He was sitting up on top of it'
<ará'> 'sit(coll.)'  /kwára'kni'wá'?  'They were sitting up on top of it'
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Pronunciation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>ƺʔmpɬ&gt;</td>
<td>'swim'</td>
<td>/kúmpe·kaʔ/</td>
<td>'He swam around'</td>
</tr>
<tr>
<td>ʑ·w&gt;</td>
<td>'swim (coll.)'</td>
<td>/kwé·we·kiraʔ/</td>
<td>'They (coll.) swam around (dist.)'</td>
</tr>
<tr>
<td>i·m·a&gt;</td>
<td>'hunt/dig/mine'</td>
<td>/kwí·m·a·keʔ/</td>
<td>'He hunted'</td>
</tr>
<tr>
<td>a·yɡ&gt;</td>
<td>'hunt/dig/mine (coll.)'</td>
<td>/kwáykeʔ/</td>
<td>'They hunted'</td>
</tr>
<tr>
<td>aʔu&gt;</td>
<td>'mouth'</td>
<td>/kwáʔuxáwik/</td>
<td>'He bit once'</td>
</tr>
<tr>
<td>e·p&gt;</td>
<td>'mouth (coll.)'</td>
<td>/kwé·pxáw·ik/</td>
<td>'He bit every once in a while'</td>
</tr>
<tr>
<td>a·ʔa·&gt;</td>
<td>'with hand/arm'</td>
<td>/kwáʔa·ča·m·ik/</td>
<td>'He held on tight'</td>
</tr>
<tr>
<td>a·pi&gt;</td>
<td>'with hand/arm (coll.)'</td>
<td>/kwáʔpi·ča·m·e·keʔ/</td>
<td>'They held on tight'</td>
</tr>
<tr>
<td>ehe&gt;</td>
<td>'jump'</td>
<td>/kwéhečuk·u·ma/</td>
<td>'He jumped from one place to another'</td>
</tr>
<tr>
<td>é·pxa&gt;</td>
<td>'jump (coll.)'</td>
<td>/kwé·pxa·čuk·a·ki·ma/</td>
<td>'They jumped from one place to another'</td>
</tr>
</tbody>
</table>
<ehe·ti> 'run' /'kwéhe·ta·kaʔ/ 'He ran'
<aska> 'run(coll.)' /'kwáškakaʔ/ 'They ran'
<itantu> 'sudden /'kwítantuk/ 'It jumped
movement' and ran'
<atkara> 'sudden /'kwátkarahampik/ 'They
movement jumped and
(coll.)' ran'

324. **Reduplication.** The reduplication that
occurs is not associated with particular syntactic
or semantic patterns. There is a partial pattern
of reduplication that is associated with the
phonological representation of the referential
<hí>. This has been accounted for by morpho-
lexical rules (II.422.1.2.). Elsewhere redupli-
cation is distributed randomly throughout the
lexicon, e.g. <parpar> 'skunk cabbage', <pukpuk>
'salamander', <ehikhik> 'to pant'.
400. **Syntactic classes.** The discussion in this section is organized according to the syntactic classes that provide the basis for clause formation. The major syntactic classes include the VERB and its satellites, ADVERB, SUBSTANTIVE (including nouns, locatives, pronouns, numerals, and deverbatives), and DEMONSTRATIVE. Included in the discussion of the VERB and satellites is the description of associated affix and theme classes. The minor classes include CONJUNCTIVE PARTICLE, CLAUSE MARKER, ENCLITIC, CLITIC and INTERJECTION.
410. **The verb.** The verb consists of verb prefix plus verb theme, and is the most complex part of Shasta structure, encapsulating much of the syntactic and semantic information present in a clause.

411. **The verb prefixes.** The verb prefixes are represented by a number of morphophonological sequences having the following canonical shapes: \( \emptyset, \emptyset\emptyset, \emptyset\emptyset, \emptyset\emptyset, \emptyset\emptyset, \emptyset\emptyset \). These sequences, given below, are representations of syncretisms of grammatical categories of mode, subject-person, number, and tense.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>( \emptyset )</td>
<td>( \emptyset\emptyset )</td>
<td>( \emptyset\emptyset\emptyset )</td>
<td>( \emptyset\emptyset )</td>
<td>( \emptyset\emptyset\emptyset )</td>
<td>( \emptyset\emptyset\emptyset\emptyset )</td>
</tr>
<tr>
<td>p</td>
<td>p ( \emptyset\emptyset )</td>
<td>t ( \emptyset\emptyset\emptyset )</td>
<td>tw</td>
<td>tw ( \emptyset\emptyset\emptyset\emptyset )</td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>p ( \emptyset\emptyset )</td>
<td>t ( \emptyset\emptyset\emptyset )</td>
<td>tw ( \emptyset\emptyset\emptyset\emptyset )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>c ( \emptyset\emptyset\emptyset )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>s</td>
<td>s ( \emptyset\emptyset\emptyset\emptyset\emptyset )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sk</td>
<td>sk ( \emptyset\emptyset\emptyset\emptyset\emptyset\emptyset )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sr</td>
<td>sr ( \emptyset\emptyset\emptyset\emptyset\emptyset\emptyset )</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>r</td>
<td>r ( \emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y</td>
<td>y ( \emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>kw</td>
<td>kw ( \emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset\emptyset )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Each of the grammatical categories associated with the prefixes is defined by a set of grammatical properties:

<table>
<thead>
<tr>
<th>Category symbol</th>
<th>Property symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>M mode</td>
<td>H hortative</td>
</tr>
<tr>
<td></td>
<td>I imperative</td>
</tr>
<tr>
<td></td>
<td>V volitional</td>
</tr>
<tr>
<td></td>
<td>P potential</td>
</tr>
<tr>
<td></td>
<td>S subjunctive</td>
</tr>
<tr>
<td>S subject-person</td>
<td>U undifferentiated</td>
</tr>
<tr>
<td></td>
<td>for person</td>
</tr>
<tr>
<td></td>
<td>1 first person</td>
</tr>
<tr>
<td></td>
<td>2p second person</td>
</tr>
<tr>
<td></td>
<td>prohibitory</td>
</tr>
<tr>
<td></td>
<td>2m second person</td>
</tr>
<tr>
<td></td>
<td>mandatory</td>
</tr>
<tr>
<td></td>
<td>2u second person</td>
</tr>
<tr>
<td></td>
<td>undifferentiated</td>
</tr>
<tr>
<td></td>
<td>3d third person-</td>
</tr>
<tr>
<td></td>
<td>direct evidential</td>
</tr>
<tr>
<td></td>
<td>3i third person-</td>
</tr>
<tr>
<td></td>
<td>inferential</td>
</tr>
</tbody>
</table>

*The properties of negation and interrogation discussed in 411.6.7. should be included in the set of properties discussed here.*
3r third person-reportative
3g third person-gerundial
3p third person-passive
3u third person undifferentiated

N number S singular
P plural U undifferentiated

T tense Pr present
Fn near past Pd distant past
U undifferentiated

The grammatical categories combine as follows:

<table>
<thead>
<tr>
<th>Mode</th>
<th>Subject-person</th>
<th>Number</th>
<th>Tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>1,2u,3u</td>
<td>S,P,U</td>
<td>U</td>
</tr>
<tr>
<td>I</td>
<td>2p,2m</td>
<td>U</td>
<td>U</td>
</tr>
<tr>
<td>V</td>
<td>1,2u,3p,3u</td>
<td>S,P,U</td>
<td>U</td>
</tr>
<tr>
<td>P</td>
<td>1,2u,3u</td>
<td>U</td>
<td>U</td>
</tr>
<tr>
<td>S</td>
<td>U</td>
<td>U</td>
<td>U</td>
</tr>
<tr>
<td>D</td>
<td>1,2u,3d,3i,</td>
<td>S,P,U</td>
<td>Fr,Fn,Pd,U</td>
</tr>
<tr>
<td></td>
<td>3r,3g,3p,3u</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In the sections that follow, the discussion consists of a paradigmatic presentation, organized by mode and containing the prefixes representing each combination of grammatical categories and phonemic examples of occurrence of the prefixes with verb themes. The verb radical as a paradigmatic example used is <ahu -is•ɪ> 'talk'. In the paradigmatic examples for all modes except the declarative, <ahu -is•ɪ> occurs in a neutral theme, the theme type most common with the prefixes of the non-declarative mode. In the examples for the declarative mode, <ahu -is•ɪ> occurs in a perfective theme. When necessary, the presentation is accompanied by explication of grammatical restrictions, semantic content and usage.

411.1. The hortative. The hortative is used to urge or tell someone to do something. It differs from the imperative in that there is no implication that the action must always be done or continue to be done.
<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>1</td>
<td>S</td>
<td>U</td>
<td>&lt;t&gt;</td>
<td>táhu:sá? 'Let me talk!'</td>
</tr>
<tr>
<td>H</td>
<td>1</td>
<td>P</td>
<td>U</td>
<td>&lt;č&gt;</td>
<td>čáhus:á? 'Let us talk!'</td>
</tr>
<tr>
<td>H</td>
<td>2u</td>
<td>U</td>
<td>U</td>
<td>&lt;k&gt;</td>
<td>káhus:á? 'You(sg.) talk!'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>káhus:á:ki? 'You(coll.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>talk!'</td>
</tr>
<tr>
<td>H</td>
<td>3u</td>
<td>U</td>
<td>U</td>
<td>&lt;r&gt;</td>
<td>ráhus:a? 'Let him talk!'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ráhus:a:ki? 'Let them(coll.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>talk!'</td>
</tr>
</tbody>
</table>

The examples above are formed with the neutral theme; however, the hortative prefixes, particularly <k> and <r>, often occur with the perfective theme, e.g. <káhus:i·k>, <ráhus:i·k>. Such forms are then translated '...keep...ing'.

Examples of uses of the hortative:
/kis:áy ?in:á? ráhus:a?/ 'Tell him; let him talk (i.e. You(sg.) tell him to talk!)

/skwís·anti·ka? wé· kútik·is/ 'He's telling you(sg.): you(sg.) say this! (i.e. He says that you are to say this)'.

411.2. The imperative. The imperative occurs
only in the second person. There is a prohibitory and a mandatory imperative. The prohibitory form of a verb always occurs with the adverb <ma->
'not'.

<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2p</td>
<td>U</td>
<td>U</td>
<td>&lt;y&gt;</td>
<td>má· yáhus·a? 'You(sg.) don't ever talk!'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>má· yáhus·a·ki? 'You(coll.) don't ever talk!'</td>
</tr>
<tr>
<td>I</td>
<td>2m</td>
<td>U</td>
<td>U</td>
<td>&lt;nỳw&gt;</td>
<td>náhus·í·k 'You(sg.) always talk!'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>náhus·a·ke? 'You(coll.) always talk!'</td>
</tr>
</tbody>
</table>

As in the examples above, the mandatory hortative is most often used with a perfective theme. Such use is not obligatory. The mandatory hortative is primarily used when instructing someone in how to do something or how to act or behave.

Examples of usage follow:
/má·'ka? yáxiwísni?/ 'You(sg.) mustn't get scared!'
/kiké·kim·u stá·? má·'ka· yikehé?/ 'Carry him constantly; don't set him down!'
/má· yári·tay/  'Don't ever bother him!' 
(cp. /má· skarí·tay/  'Don't bother him (just for now)!)'

/nipxúye·kík·a' mí·čax ničkwá·kiʔ/  'You(coll.) go and smoke it out; then you(pl.) can eat it!'

/nwi·púk/  'You(sg.) keep on bathing (i.e. bathe repeatedly, every once in a while)!

411.3. The volitional. The volitional implies intention to do something. It is most often translated by '...will...' or '...going to...'. The first person volitional form of a verb most often occurs with the adverb <sa·> '1st person volitional marker'; however, the occurrence of <sa·> is not obligatory.
<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>1</td>
<td>S</td>
<td>U</td>
<td>&lt;t˘&gt;</td>
<td>sá· táhus·á? 'I'll talk.'</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
<td>P</td>
<td>U</td>
<td>&lt;c˘&gt;</td>
<td>sá· čáhus·á? 'We'll talk.'</td>
</tr>
<tr>
<td>V</td>
<td>2u</td>
<td>U</td>
<td>U</td>
<td>&lt;st˘&gt;</td>
<td>stáhus·á? 'You(sg.)'ll talk.'</td>
</tr>
<tr>
<td>V</td>
<td>3u</td>
<td>U</td>
<td>U</td>
<td>&lt;t&gt;</td>
<td>táhus·á? 'He'll talk.'</td>
</tr>
<tr>
<td>V</td>
<td>3p</td>
<td>U</td>
<td>U</td>
<td>&lt;y&gt;</td>
<td>yáhus·antay 'They/he will talk to him.' yáhus·aya·kay 'They/he will talk to them(coll.)'</td>
</tr>
</tbody>
</table>

<y>, third person passive volitional, is used here with a transitive neutral theme; however, such use is not obligatory. Cf. /yam·ár/ 'He's going to get whipped,' which in <y> is used with a neutral theme unmarked for transitive. Although the forms are translated as active, the translations for forms in the declarative mode are often rendered as English passives. (For discussion of
problems concerning the passive prefixes, cf. 411.6.)

411.4. The potential. The potential implies the ability to do something or the possibility of the occurrence of certain actions or conditions. Potential verb forms enter into the substantive system as deverbal when occurring with the temporal locative substantive suffix <-羟i>.

<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>1</td>
<td>U</td>
<td>U</td>
<td>&lt;š&gt;</td>
<td>sάhus•a? 'I might talk.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>sάhus•a•ki? 'We might talk.'</td>
</tr>
<tr>
<td>P</td>
<td>2u</td>
<td>U</td>
<td>U</td>
<td>&lt;sk&gt;</td>
<td>skάhus•a? 'You(sg.) might talk.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>skάhus•a•ki? 'You(coll.) might talk.'</td>
</tr>
<tr>
<td>P</td>
<td>3u</td>
<td>U</td>
<td>U</td>
<td>&lt;sr&gt;</td>
<td>srάhus•a? 'He might talk.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>srάhus•a•ki? 'They might talk.'</td>
</tr>
<tr>
<td>P</td>
<td>3p</td>
<td>U</td>
<td>U</td>
<td>&lt;č&gt;</td>
<td>čάhus•antay 'They/he might talk to him.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>čάhus•aya•kay 'They/he might talk to them.'</td>
</tr>
</tbody>
</table>
Examples of usage are:

/kuˈča sá· ké· čičku? ɾáˈtuka sá·ʔi ke·nú·ti·k/
'sWhat are we going to eat if we don't have any money?'

/maˈhúku mí· sríp·eheʔ/ 'He hasn't made retribution yet.'

/skáwe·čiʔi ʔin·áʔ kimpíʔ ʔin·áʔ stik·íʔ/ 'If you(eg.) eat it all up, you'll get big.'

/maˈhúku mí· sríp·ehempe·kiʔ/ 'They haven't been paid retribution yet.'

411.5. **The subjunctive.** The subjunctive expresses an action or a state that is contingent and dependent. It often translates with an optative ('might', 'may') or an obligative ('must', 'have to') force. A subjunctive verb can occur as the main verb in a clause or as a dependent verb in a verb phrase.

<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>U</td>
<td>U</td>
<td>U</td>
<td>&lt;stwŋ&gt;</td>
<td>stáhus·áʔ sú·wataykak 'I want to talk.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~&lt;stwŋ&gt;</td>
<td>stáhus·á·kiʔ yú·wataykak 'We want to talk.'</td>
</tr>
</tbody>
</table>
stáhus·á? rí·wataykak
'He wants to talk.'
stáhus·á·ki? rí·wata·kaykak
'They want to talk.'

Examples of usage are:
/yap·ú? ʔin·á? stíwa·ʔi ḵwáʔ/  'I was going to start a fire.'
/makáy ǧi·mi stwat·é·keʔ/  'You(sg.) come around here again!'
/ʔis·iŋ sì·way stik·íʔ/  'you(sg.) might get cold.'
/stáhuʔ·uhúm·u mí· ḵwáʔ/  'He was just about to say something.'

411.6. The declarative. The declarative mode denotes actions or states a fact. The declarative prefixes mark not only mode, subject-person and number, but also tense. A proliferation of third person prefixes differentiate other semantic and grammatical notions. The prefixes that require little or no special comment are presented first.

411.6.1. Present tense. The present tense describes an action or state of being at the time of speech. It is also used when talking about immediately past actions or states if the context for them is still in force at the time of speech.
<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>1</td>
<td>S</td>
<td>Pr</td>
<td>&lt;sw&gt;</td>
<td>swáhus'i'k  'I'm talking.'</td>
</tr>
<tr>
<td>D</td>
<td>2u</td>
<td>U</td>
<td>Pr</td>
<td>&lt;skw&gt;</td>
<td>skwáhus'i'k 'You(sg.) are talking.'</td>
</tr>
<tr>
<td>D</td>
<td>3i</td>
<td>U</td>
<td>Pr</td>
<td>&lt;kw&gt;</td>
<td>kwáhus'i'k 'He is talking.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>kwáhus'a'ke? 'They are talking.'</td>
</tr>
<tr>
<td>D</td>
<td>3d</td>
<td>U</td>
<td>Pr</td>
<td>&lt;r&gt;</td>
<td>rári'çača'? 'He's looking (at him).'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>rári'çača'ke? 'They are looking (at him).'</td>
</tr>
</tbody>
</table>

The use of <kw> and <r> needs comment. <kw> 'inferential' is more frequently used than <r> 'direct evidential'. Its meaning roughly translates 'on the basis of what I have perceived, either directly or indirectly, I have inferred that a third person is...'.

<r>, used with a durative perfective theme in the paradigm above, is semantically complex. <r> is used when the speaker knows of what he speaks from immediate direct (usually visual) evidence; e.g. /rát\'aka/? 'he's going along on foot(prog.)', /rúč\'akak/ 'a storm is coming(prog.)'.

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It is also often used when the subject is indefinite, e.g. /ráñutiskicwa· tänacak/ 'everything's quiet outside(dur.)'. The use of <r> is most frequent with themes that have an imperfective, continuous, durative or progressive aspect as an element of semantic content.

411.6.2. **Near past tense.** The near past is used in conversation and anecdote to describe events relatively recent in time from the speaker's point of view; for example, in an anecdote involving himself, SS might use the near past to refer to an event that happened any time from the day before to fifty or sixty years ago.

<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>D 1 S Pn</td>
<td>&lt;kwû&gt;</td>
<td>kwáhus·á·? 'I talked.'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D 2u U Pn</td>
<td>&lt;kw&gt;</td>
<td>kwáhus·i·k 'You(sg.) talked.'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>kwáhus·a·ke? 'You(coll.) talked.'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D 3i U Pn</td>
<td>&lt;kw&gt;</td>
<td>kwáhus·i·k 'He talked.'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>kwáhus·a·ke? 'They(coll.) talked.'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D 3r U Pn</td>
<td>&lt;t&gt;</td>
<td>táhus·i·k 'it is said that he talked.'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
táhus'a·ke? 'It is said that you(coll.) talked.'

<kw> is near past inferential. <t> 'reportative' is used when describing events of which the speaker has no personal knowledge; however, there is a tendency to substitute <t> for the other forms in the near past and use it simply as a past time marker.

411.6.3. **Distant past tense.** The distant past prefixes are usitative or simply markers of distant past time.

<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>1</td>
<td>S</td>
<td>Pd</td>
<td>&lt;p&gt;</td>
<td>páhus'a·i·k 'You(sg.) used to talk.'</td>
</tr>
<tr>
<td>D</td>
<td>2u</td>
<td>U</td>
<td>Pd</td>
<td>&lt;p&gt;</td>
<td>páhus'a·i·k 'You(coll.) used to talk.'</td>
</tr>
<tr>
<td>D</td>
<td>3i</td>
<td>U</td>
<td>Pd</td>
<td>&lt;p&gt;</td>
<td>páhus'a·i·k 'He used to talk.'</td>
</tr>
<tr>
<td>D</td>
<td>3r</td>
<td>U</td>
<td>tw</td>
<td>&lt;tw&gt;</td>
<td>táhus'a·i·k 'He used to talk.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>táhus'a·ke? 'They(coll.) used to talk.'</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>twáhus'a·ke? 'It is said that he used to talk.'</td>
</tr>
</tbody>
</table>
|    |    |   |    |        | twáhus'a·ke? 'It is said

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that they used to talk.'

<p> is distant past inferential. <tw>, which has a variant <tw>, is distant past reportative. <tw> and <t> (cf. 411.6.2.) are used in the narration of myths. They are also used in conversation and anecdote, along with the other near past and distant past forms.

411.6.4. <y> first person plural. <y> represents a syncretism of the following: M=D, S=1, N=P, T=U; thus /ýahuš’a·/ translates as 'we are talking (or) we talked (near past/distant past)'. An example of usage is:

/kí·su yíwan·aka? ká·uči· yíwan·aka?/ 'Yesterday we slept; now-again we are sleeping.'

If it is necessary to overtly mark tense, the demonstratives (cf. 440.) are used:

/ýahuš’a· wé/ 'We-are-talking right-now.'

/ýahuš’a· ʔin·á/ 'We-were-talking a-while-ago.'

/ýahuš’a· mí/ 'We-were-talking some-time-ago.'
411.6.5. The passive prefixes. There are three third person prefixes in the declarative mode which are considered passive markers:

<table>
<thead>
<tr>
<th>M</th>
<th>S</th>
<th>N</th>
<th>T</th>
<th>Prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>3p</td>
<td>U</td>
<td>?</td>
<td>ĉ &gt;</td>
</tr>
<tr>
<td>D</td>
<td>3p</td>
<td>U</td>
<td>?</td>
<td>y &gt;</td>
</tr>
<tr>
<td>D</td>
<td>3p</td>
<td>U</td>
<td>Pd</td>
<td>hyy &gt;</td>
</tr>
</tbody>
</table>

Verb forms occurring with these prefixes are translated either as passive or transitive:

/ĉis•anta•?/ 'He was told (or) he/they told him.'

/yis•anta•?/ 'He was told (or) he/they told him.'

/his•anta•?/ 'He was told (or) he/they told him.'

/ĉis•a•kenta•?/ 'They were told (or) he/they told them.'

The implication is that action is being done to the subject by a third person agent:

/ĉa•uxawa•?/ as in /?a•psuʔ•a? ŝa•uxawa•?/ 'The dog-demons bit him.'

(For discussion of the demonstrative enclitic, see 452.1.)
/čiri·?·a·?/ as in /?ic·á·ta? ?in·á? čiri·?·a·?/
'He got hit with a rock.'
(cop. /?á·psu ʔwíri·?·ik ?ic·á·ta?/ 'he hit the
dog with a rock(perf.asp.)' which is not struc-
turally different from /táka·kwát·aka? ?ič·á·ta?/
'somebody was going along a trail on foož(prog.
asp.)'.

<č> and <y> are problematical in that there is no
way to know whether the difference between them
marks a difference in tense or in type of evi-
dential; also, <č> is the third person passive m
marker in the potential mode, and <y> has the
same function in the volitional mode (cf. 411.3,4.).

<hwɛ> marks not only third person passive
but also distant past. Its use is restricted to
narration, usually of myths.

411.6.6. <ʔwɛ> gerundial. Forms marked by
this prefix function either as verbs or as sub-
stantive themes. (Cf. 422.7. for a description of
the substantival function). <ʔwɛ> does not mark
number or tense and is never used with a neutral
theme.

Although gerundial verbs are used primarily
in the narration of myths, they also occur in
anecdotal narration.
A gerundial verb never occurs in clause which opens narration. It always has reference to a verb that is marked for third person declarative, e.g.,

/twé·we·e ṇi·s·i· kwač·ú· ʔap·akf·par
'He lived Panther his uncle-alongwith čá·xari·ná·ʔi· /
Mud Turtle.'

/kwačik·a· ʔiʃ·ik ʔu·kír. ʔi·s·i·čú
'He(Turtle) pounded acorns. Panther

ʔwi·m·á·keʔ ʔaráwpaw./

hunted deer-nothing but'.

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411.6.7. Negative/interrogative prefixes. The following analysis is tentative as it is not known whether the variation described in this section is due to dialect difference or to failure in eliciting forms which would throw into contrast differences that are structurally significant.

A subset of declarative prefixes that represent a syncretism of mode, number, person, negation and interrogation is presented below, arranged in a paradigm according to subject-person and number:

- 1S, 2S, 3U: $<t> \sim <t\tilde{v}>$
- 2S: $<tw> \sim <tw\tilde{v}>$
- 2P: $<st> \sim <st\tilde{v}>$
- 1P: $<\tilde{c}> \sim <\tilde{c}\tilde{v}>$

The above paradigm shows an overall variation that seems to be free; take, for instance, the verb radical $<i\cdot h\tilde{a}y\tilde{v}>$ 'dream' in a perfective theme:

- /tÍ·háyka/ $\sim$ /tÍ·háyka/ 'Did he dream?'
- /má· tÍ·háyk/ $\sim$ /má· tÍ·háyk/ 'He didn't dream.'

This is presumably a lexemic variation that is explained by dialect mixture.
There is also a seemingly nondistinctive variation involving the markers for second person singular: \(<t> \sim <t\varepsilon>\) \sim (\<tw> \sim <tw\varepsilon>)\); for example,

\[
\text{/má· twíkhyewik/ } '\text{You(sg.) didn't hear it(perf.)}.' \\
\text{/má· táwtiskeʔ/ } '\text{You(sg.) didn't sit still(perf.)}.' \\
\text{/twíkhyewikya/ } '\text{Did you(sg.) hear it?(perf.)}.' \\
\text{/táwtiskeya/ } '\text{Did you(sg.) sit still?(perf.)}.'
\]

A verb marked by a negation/interrogation prefix occurs with the adverb \(<\text{ma·}>\) 'not' and/or

(1) the enclitic \(<\text{ya}>\) 'question marker' \\
(2) a satellite construction of which \(<\text{ya}>\) is a constituent \\
(3) a satellite that has the property 'interrogation' as one of its semantic components.

Such verb forms are translated into English in either the present or past tenses.

Examples of usage follow.

\[
\text{/mí·śi· má·ya twím·í·k/ } '\text{There, can't you(sg.) see it?}'
\]

\[
\text{/kí·śá ke· řin·áʔ twári·čača·m·ak/ } '\text{Why do you look at me?}'
\]
'What's he doing?'

'Are you(sg.) holding on carefully?'

'What time did he go?'

'He winked at you(coll.); did you(pl.) see him?'

'We didn't see that.'
412. The verb theme. The verb theme (VT) consists of a radical plus one or more optional suffixes that are organized into ten position classes.

Given below is a list of the functional/semantic categories associated with the theme classes:

<table>
<thead>
<tr>
<th>Category</th>
<th>Class symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>radical</td>
<td>rV</td>
</tr>
<tr>
<td>suffix categories:</td>
<td></td>
</tr>
<tr>
<td>attributive</td>
<td>sV1</td>
</tr>
<tr>
<td>location/direction</td>
<td>sV2</td>
</tr>
<tr>
<td>transitive</td>
<td>sV3</td>
</tr>
<tr>
<td>benefactive</td>
<td>sV4</td>
</tr>
<tr>
<td>reflexive</td>
<td>sV4</td>
</tr>
<tr>
<td>reciprocal</td>
<td>sV5</td>
</tr>
<tr>
<td>punctual aspects</td>
<td>sV6</td>
</tr>
<tr>
<td>collective</td>
<td>sV7</td>
</tr>
<tr>
<td>distributive</td>
<td>sV8</td>
</tr>
<tr>
<td>characteristic</td>
<td>sV8</td>
</tr>
<tr>
<td>nonpunctual aspects</td>
<td>sV9, sV10</td>
</tr>
</tbody>
</table>

A neutral theme (NVT) is a theme that is unmarked for nonpunctual aspect (i.e. a theme that does not include sV9 or sV10; an aspectual
theme (AVT) is a theme that is marked by one or more of the nonpunctual aspects: imperfective, perfec-
tives, continuative, progressive, ambulative, direc-
tional (intransitive), or directional (transitive). The structure of the verb theme can be summarized as follows (... = any one or any selected group of specified classes):

\[
\begin{align*}
VT & : AVT, NVT \\
AVT & : NVT sV9 \ldots 10 \\
NVT & : rV [sV1 \ldots 8]
\end{align*}
\]

The suffix classes are divided into two groups: \textit{inner} and \textit{outer}. Classes sV1 \ldots 7 are inner thematic classes. Classes sV8 \ldots 10 are outer thematic classes. This division is based upon the fact that it is possible, before the addition of an outer thematic suf-
fix, to extend the theme through reiteration of the radical and/or one or more of the inner classes. (Theme extension is described in 413.).

There are no formal restrictions on the cooc-
currence of theme classes or members of theme classes. However, expansion of the theme by filling all the suffixal positions, or extension of the theme by reiteration of the radical and all inner
themetic classes, is only hypothetical.

412.1. The radical (rV). The verb radical differs from the suffixes in the morphophonological restriction that a radical must begin with a vowel.* The common canonical shapes of radical lexemes are VC(V) and VCCV. Lexemes of the other shapes, e.g. <utik·is> 'speak', <ehi·çi> 'rest', although synchronically unsegmentable, most likely represent historical sequences of more than one lexeme.

It is possible to have compound radicals of two members. For example, <ahu> 'mouth' and <is·i> 'say' occur as a compound radical in <kw ahu -is·i Na·> : /kwáhus·áʔ/ 'I talked'. <ahu> occurs as a single radical in <skw ahu hí·qi hamp ak> : /skánuhi·hámpak/ 'he will suck you (as a shaman does)'. (<hi·qi> is a location/direction suffix); <-is·i> occurs as

* The exception to this restriction is <wi·há·p> 'pile up' as in /ywí·ha·pantaʔ/ 'we piled it up!'. There are no restrictions on the canonical shapes of suffixes.
a single radical in <kw is•÷ Na•> : /kwis•á•/ 'I said'.

Except for the phonological restriction that a radical must begin with a vowel, the combinatorial possibilities for compounding are lexically conditioned. The occurrence of a lexeme in the data only as first member of a compound is considered fortuitous.

412.2. Inner thematic suffixes. Suffixes that are members of classes sV1...7, the inner thematic classes, are described in this section. In the discussion of sV1 (attributives) and sV2 (location/direction suffixes), classes with a membership of more than fifteen suffixes, only suffixes that need special comment will be discussed; however, sample lists will be given.

412.2.1. Attributives (sV1). Attributive suffixes do not participate in the extension of the theme (cf. 413.). The attributives fall into two semantic categories, perception and motion.

412.2.1.1. Perception attributives. The semantic range of perception attributives mostly involves sensory perception; however, there are a few lexemes whose meanings involve contingency.
Some of the perception attributes occur not only as verb thematic suffixes but also as either noun substantives, adverbs, or enclitics; e.g. 
<ča·m·i> 'intensifier' as in /kwé·kača·m·e·ke?/ 'They are talking loudly.' also occurs as an enclitic in /ʔá·taxára·ča·m·i/ 'too salty'.

<kírkír> 'a sharp, quick sound' as in /ke·tikírkíre·ke?/ 'You(coll.) break the ice!' occurs as the noun substantive /kírkír/ 'tinware'.

<si·way> 'it is possible that... ' as in /twé·xingi·wayru·ma/ 'It is said that she got sick from worrying.'

Other examples of perception attributes are:

<-iksúmpi> 'rigid'
<rí·?i> 'good, correct'
<čík> 'mud' (also occurs as a noun substantive)
<čís·i> 'lacking motion or sound'
<u·tki> 'unexpectedly, accidentally'
<taraki> 'black'
<či·yaxi> 'careful'
<-e·čák·a> 'bright'
<-ičumpaxi> 'yellow, green'
<-itíski> 'lacking sound'
<-ičum·u> 'roan-colored'
<-ikhwip·i> 'stiff'
<kisni> 'sharp, prickly'
<kat·i> ? as in /kwícmat·i·ma/ 'He went sound asleep'.

412.2.1.2. Motion attributives. Unlike the perception attributives, motion attributives only occur as verb thematic suffixes.* A motion attributive specifies the kind of motion involved in the performance of an action. A partial listing, with examples, follows.

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;-čak·a&gt; 'jerking motion!'</td>
<td>/kwán·ičak·acwik/ 'He jerked him up.'</td>
</tr>
<tr>
<td>&lt;-čuk·u&gt; 'movement from one place to another'</td>
<td>/kwéhečuk·u·ma/ 'He jumped from one place to another.'</td>
</tr>
<tr>
<td></td>
<td>/kwá·a·čuk·u·ma/ 'He pulled it out (e.g. sliver, nail).'</td>
</tr>
</tbody>
</table>

* They differ also in that all the examples in the corpus begin in a consonant.
| <či>   | 'pressing, squeezing motion' | /kwáʔa·čik/ 'He pressed, cranked it.' |
| <čip>  | 'whipping motion' | /kwán·ičip·ik/ 'He beat it with a whip.' |
| <Hnú>  | 'upward motion' | /kwéhe·nucwik/ 'It went off up into the air.' |
| <kaká> | 'motion across a surface' | /kwáʔa·kaká·ma/ 'He dragged it away.' |
| <ka·ru> | 'up and down motion' | /kwéheka·nucwik/ ~ /kwéheka·rucwik/ |
| <ka·nu> | 'It bobbed up and down in the air.' |
| <kwit·i> | 'motion involving a rigid, long object' | /kwáʔa·kwit·ik/ 'He broke up sticks.' |
| <kat·i> | 'motion involving a flexible object' | /kwáʔa·kat·ik/ 'He broke it (e.g. a string).'</td>
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Pronunciation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>m·i</td>
<td>motion involving steady pressure of arm'</td>
<td>/ˈkwɪcmam·i·k/</td>
<td>'He pushed on it to see if it were solid.'</td>
</tr>
<tr>
<td>puk·u</td>
<td>motion involving projection forward</td>
<td>/ˈkúkapuk·uc·i·k/</td>
<td>'He pushed it up with his forehead.'</td>
</tr>
<tr>
<td>rux·i</td>
<td>motion involving extension of arm/leg'</td>
<td>/ˈkwákarux·i·k/</td>
<td>'He kicked it out of the way.'</td>
</tr>
<tr>
<td>tl</td>
<td>iterative motion</td>
<td>/kwán·iti·k/</td>
<td>'He was chopping(wood).'</td>
</tr>
<tr>
<td>tir</td>
<td>motion involved in breaking a surface'</td>
<td>/ˈkúpitirik/</td>
<td>'He punched a hole through a thin shell'</td>
</tr>
<tr>
<td>xi</td>
<td>splitting motion'</td>
<td>/ˈkú·pixi·k/</td>
<td>'He was splitting(wood).’</td>
</tr>
</tbody>
</table>
412.2.2. Location/direction suffixes (sV2).
Restrictions on the occurrence of location/direction suffixes with particular sequences of rV [sV1] are semantic.

The suffixes discussed here manifest one or more of the following features: (1) lexemic variation presumed to be due to dialect difference (cf. I.220. for discussion of predictability of phonological alternations), (2) morpho-lexical alternation (cf. I.220.), (3) cooccurrence possibilities, (4) occurrence as an enclitic (cf. 451.), (5) role in the extension of the verb theme (cf. 413.).

412.2.2.1. Lexemic variants. The variations described below are thought to represent dialect variation.

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ablative</td>
<td>&lt;cw&gt; ~ &lt;cw&gt;</td>
</tr>
<tr>
<td></td>
<td>/'tat·íc·a/ 'I’m going to go(vol.).'</td>
</tr>
<tr>
<td></td>
<td>/kap·ácwi/ 'You(sg.) go get an arm-load(hort.)!'</td>
</tr>
<tr>
<td></td>
<td>/čép·a·ća·ć/ 'We’re going to go out hunting(vol.).'</td>
</tr>
<tr>
<td>Meaning</td>
<td>Variation</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>'across'</td>
<td>&lt;ehé·haw&gt;</td>
</tr>
<tr>
<td></td>
<td>~ &lt;ehá·haw&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>'downstream'</td>
<td>&lt;ehé·wi&gt;</td>
</tr>
<tr>
<td></td>
<td>~ &lt;hé·wi&gt;</td>
</tr>
<tr>
<td>'out of a container'</td>
<td>&lt;ahé·w&gt;</td>
</tr>
<tr>
<td></td>
<td>~ &lt;ahá·w&gt;</td>
</tr>
</tbody>
</table>
Meaning | Variation | Example
---|---|---
'in liquid' | <wa·k> ~ <epá·k> | /kač·ipá·k/ 'Put it to soak!'
'into a circumscribed area' | <aha·b> ~ <aha·?> | /kwá·ya·?·aha·?ik/ 'He gathered it together with his hands(perf.).'

/kwá·ya·?·aha·wak/ ~
/kwá·ya·?·aha·pi·ka/

'With his hand, he scraped in the winnings that he won from me.'

/kwán·isaha·?iruk/ ~
/kwán·isaha·piruk/

'He herded them all together into one place(perf.).'

/túc·iwa·kik/ 'He fell in the water.'

/rí·iwaka·/ 'It's put to soak.'
The <-pá·k> variant only occurs in final position in the verb theme. <-wa·k> has the variants /wa·k/ and /wak/.

The following suffixes have the meaning 'downward' or 'outward'. The morphophonological shapes are presumed to be <a·háNpi>, <haNpi> and <ehéNpi> with the morpholexically conditioned variants /a·ha·/, /ehá·/ and /ehé·/, which occur when these suffixes are in final position in a theme.* The following examples demonstrate the complications.

/kwitca·hámpik/  he put  /kičá·ha·/ 'You(sg.)
it down'  put it down(hort.)'

/rí·kiwakampa·/  'He's placed /kí·kiwake·ha·/
with his  'place yourself so
back to the  that your back is
outside(dur.)' to the outside
(hort.)'

/kukawehémpik/  'He bowed
his head' /kukawehá·/ 'Hold
your head down
(hort.)'

/kwikeyémpik/  'She put /kikehé·?/ 'You(sg.)
her pack  put your pack
down(from  down(hort.)'
off her back)'

*i.e. before juncture.
See also /tirikwaxehē'piruk/ 'Something smashed the fence down'.

/kwawakha'piruk/ 'He took it outside.'.

The tonal irregularities are unexplained.

412.2.2.2. **Morpholexical variants.** The location/direction suffixes that show morpholexical variation are presented in the following table. Those forms that have similar patterning are grouped together. Discussion and examples follow the table.

<table>
<thead>
<tr>
<th>No.</th>
<th>Morphophonological Shape</th>
<th>Morpholexical Variant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>&lt;asw&gt;</td>
<td>asw ~ aHsw</td>
</tr>
<tr>
<td>2.</td>
<td>&lt;cw&gt;</td>
<td>cw ~ Hcw</td>
</tr>
<tr>
<td>3.</td>
<td>&lt;ahá'w&gt;</td>
<td>ahá·</td>
</tr>
<tr>
<td>4.</td>
<td>&lt;ehé'ha'w&gt;</td>
<td>ehé'ha·</td>
</tr>
<tr>
<td>5.</td>
<td>&lt;wáha·w&gt;</td>
<td>wáha·</td>
</tr>
<tr>
<td>6.</td>
<td>&lt;iNbú&gt;</td>
<td>?iNbú ~ ?iNpú ~ ?eNpú</td>
</tr>
<tr>
<td>7.</td>
<td>&lt;ipsirú&gt;</td>
<td>ipsiru ~ ipsir</td>
</tr>
</tbody>
</table>

The following discussion is organized by numbering which matches the numbers in the table above.
1. <asw> 'away, off'. The variation, as shown in
the table, is free. It most often occurs
when <asw> is in final position in a theme;*
e.g., /kawá's/ 'You(sg.) take it away(hort.)',
/čawás·ir/ 'Let us take it away(hort.)!'.

2. <ćw> 'upward'. Same as in 1; e.g., /kat·ikí·c/
'You(sg.) lift up your feet(hort.)!!',
/kat·ikí·c·e·kí?/ 'You(coll.) lift up your
feet(hort.)!!', /kwá·t·ikí·c·i·k/ 'He lifted up
his feet(perf.)'.

3, 4, 5. As these suffixes share the same pattern
of morpholexical variation, 4 and 5 are pre-
sumably petrified combinations containing 3.
variant shapes occur when the suffixes are in
final position in a theme.*

<ahá·w> 'along in space, up a hill'. Examples
are:
/tárahá·wa·kayru·ma/ 'They(coll.) stretched
a long object over and
across (something)(cont.)'

/kat·ahá·?/ 'You(sg.) go up the hill
(hort.)!!'

/rá·wahá·wa·ka?/ 'The path goes up the
hill(prog.)'

*i.e before juncture.
/ráp•arahá•wakaʔ/ 'It's down the gulch (when at upper end looking down)(prog.)'

<ehé•ha•w> - <ehá•na•w> 'across'. Examples are:

/kumpehé•haːʔ/ 'You(sg.) swim across (hort.)'

/rúc•ehé•há•waykaʔ/ 'It(a boat) is crossing still water(prog.)'

/tíyú•ehé•ha•ma/ 'It's frozen over(cont.)'

/kwehehé•ha•ma/ 'I covered it (with a lid)(cont.)'

<wáha•w> 'along the edge'. Examples are:

/kwi•ʔ•iwa•ha•ma/ 'He's sighting along (e.g., a gun)(cont.)'

/kwé•ʔ•iwa•wa•kaʔ/ 'He's crawling along the upper edge of a bank (prog.)'

/ké•ʔ•iwa•ha•/ 'You(sg.) crawl along the edge(hort.)'

The following is an example of optional syncope of <w> (cf. I.241.): /ké•ʔ•iwa•ha•ki/ 'You (sg.) crawl(coll.) along the edge! (i.e. crawl back and forth); the expected shape should be
/kwé·?iwáha·wa·ki?/.

6. <iNбу> 'through a circular/tubular space'. The morpholexical variants íNпу and eNпу occur when the suffix is in final position in the theme:* íNпу occurs as /í·pú/ and eNпу occurs as /e·pú/; e.g. /ké·yehé·i·pú/ ~ /ké·yehé·e·pú/ 'You(sg.) crawl through (a hollow log)(nort.)'! íNбу occurs as morphophonologically predicted, before <Na·> 'paucal perfective'; e.g. /kwé·yehé·impá·?/ 'I crawled through.' íNбу and eNpu vary elsewhere; e.g. /ríp·ehé·empá·?/ ~ /ríp·ehé·i·wá·?/ 'They(coll.) are looking through (a hole in the wall)(dur.).'

The above analysis is tentative. A paucity of distributional evidence and semantic opacity leaves open the possibility that íNбу is identifiable with íNбу 'reciprocal' (cf. 412.2.5.). If such is the case, a form like /ripehé·empá·?/ may contain such a sequence as ehe e?e íNбу.

7. <ipsiru> 'down into'. The variant<ipsir> occurs when the suffix is in final position in the theme,* e.g.,

i.e. before juncture.
/kax·yapsir/
'You(sg.) fill it up
(eg., a hole in the
ground)'

/kwi·m·apsiruk/
'He went down into the
hole to hunt for it.'

This suffix is a petrified form which contains
<iru> 'distributive' (cf. 412.3.1.).

412.2.2.3. **Cooccurrence possibilities.** A
sampling of the location/direction suffixes found
to cooccur are listed below. In none of the ex-
amples, is cooccurrence formally obligatory. The
combinatory possibilities are semantically restrict-
ed.

The examples are ordered according to first
member in a sequence. The individual forms are
first listed with glosses. This listing is fol-
lowed by the sequences and examples.

**First members of a sequence.**

<-wak>  'located in relation to a circum-
scribed area'

<uhi>  'along with; after'

<è?e>  '?'

<ḫi·?i>  'into'

<tac·á>  'allative'
<kní>  'up over'
<ehéNpi> 'downward; outward'

Second members of a sequence.

<haNpi>,<a*haNpi>,<ehéNpi> 'downward; outward'
<hay> ~ <?ay> ~ <e*> '?
<kway> 'up along'
<i*i> 'down along'
<awhi> 'straight ahead into a circular/tubular space'
<wa*k> 'in liquid'
<ak*t> 'encircling a long object'
<ahá*w> 'along in space'
<ka*nú> 'upstream from the mouth of a stream'
<rakmaki> 'here and there'

Examples of sequences.

<-wak haNpi> as in /kwáwakha*piruk/ 'He took it outside.'

<-wak ?ay> as in /réhe*tiwak?aywa*?/ 'He's running around a circle.'

<-wak e*> as in /ríriwake*ka/ 'He's got his arm around something.'

<uhi kway> as in /kwíruhkwaya*ka*/ 'He walked along the river upstream.'
<uhi í•’i> as in /kwíruhi•ka’/ 'He went downstream.'
<è•e awhi> as in /rí••e•awhi’/ 'Let him look straight ahead into the hole.'
<è•e ehéNpi> as in /kan•ité•ehá•’/ 'Take off your shirt.'
<hí•’i haNpi> as in /kwáhuhi•hámpik/ 'He puts mouth on body and sucks.'
<hí•’i wa•k> as in /yarakwi•’iwaka’/ 'We fell into the water.'
<ehéNpi rakmak•i> as in /kíxam•ehempirakmak•ira•’/ 'He’s going from chair to chair (to see which is the most comfortable).'
< tac•á ka•hú> as in /kwí•ritac•áka•húru•ma/ 'He took it(distr.) straight up the creek.'
<tac•á ahá•w> as in /kwí•ritac•ahá•wiru•ma/ 'He took it(distr.) straight up the creek.'
<tac·á a·haNpi> as in /rán·itac·á·hampa·ʔ/ 'the middle of the day.'

<kni í·ʔi> as in /ʔwap·akní·kaʔ/ 'a river bank-
downstream direction'

<kni kway> as in /ʔwap·áknikwaya·kaʔ/ 'a river bank-upstream direc-
tion'

<kni ak·i> as in /kíráknak·aʔ/ 'You(sg.) hang it up!'

412.2.2.4. Occurrence as enclitics. A few of the location/direction suffixes are found func-
tioning as postpositions, a subclass of enclitics (cf. 451.). These suffixes are:

<tac·á> 'allative'

<ka·hú> 'upstream from the mouth of a stream'

<-pá·k> 'in liquid'

<awhí> 'straight ahead into a circular/
tubular space'.

412.2.2.5. Role in expansion of verb theme. There is sparse evidence that it is possible for location/
direction suffixes to participate in extension of the verb theme. (Cf. 413.); the suffixes that do so are
<brakmak·i> 'here and there' and <e·rak> 'all day long'.

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412.2.3. Transitive marker (<i>n3</i>). The transitive marker is represented by <i>aNti</i> and <i>a"i</i>, dialect variants. These forms are both in free variation and in partial complementary distribution (cf. discussion in 1.220.). The predominant pattern of occurrence is as follows: <i>aNti</i> occurs before the paucal perfective marker <i>Na</i> and the directional transitive marker <i>i'ka</i>; <i>a"i</i> occurs elsewhere. However, there are rare examples of <i>a"i</i> occurring before <i>Na</i>, e.g. /kwá*m'uká*ya/* /kwá*m'uká*ta/* 'I counted' and many examples of <i>aNti</i> occurring in environments other than those given above.

<i>aNti</i> and <i>a"i</i> show morpholexical variation:

<table>
<thead>
<tr>
<th>Morphophonological</th>
<th>Morpholexical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Variant</td>
</tr>
<tr>
<td>&lt;i&gt;aNti&lt;/i&gt;</td>
<td>eNti</td>
</tr>
<tr>
<td></td>
<td>aNti ~ Nti</td>
</tr>
<tr>
<td>&lt;i&gt;a&quot;i&lt;/i&gt;</td>
<td>a&quot;i ~ e&quot;i</td>
</tr>
<tr>
<td></td>
<td>a&quot;i ~ a&quot;i</td>
</tr>
</tbody>
</table>

The lexemes providing the conditioning environments are the collective markers (cf. 412.2.8.). In accordance with the morphophonemic rules
concerning syncope of <ą> and resulting vowel contraction, the phonemic representations of <a·ńi> are usually /ay/, /ey/ and /a·y/.

The transitive marker is a highly productive suffix. There are no grammatical restrictions on its occurrence. Its semantic function is not completely understood; one of its meaning components is 'causative'. The following examples give an idea of the range of meanings (forms unmarked for transitive are contrasted with those marked for transitive):

<table>
<thead>
<tr>
<th>Nontransitive</th>
<th>Transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>/réhe·nukaʔ/ 'He's running along on foot (prog.)'</td>
<td>/réhe·naykaʔ/ 'He's going along on horseback (prog.)'</td>
</tr>
<tr>
<td>/rát·akaʔ/ 'He's going along on foot (prog.)'</td>
<td>/rát·aykaʔ/ 'He's chasing him.'</td>
</tr>
<tr>
<td>/kwáska·kak/ 'They ran hither (prog.)'</td>
<td>/kwáska·yik·aʔ/ 'They came running hither (direct.intrans.)'</td>
</tr>
<tr>
<td>/kawá·s/ 'You(sg.) take it off (hort.)'</td>
<td>/kawá·sway/ 'You(sg.) make him take it off! (hort.)'</td>
</tr>
</tbody>
</table>
/tírikni·ma/ 'She put her arm over something (direct, intrans.)' /tíriknayma/ 'He took her arm and put it over something (direct, intrans.)'

/kwís·ik/ 'He said (perf.)' /kwís·ayik / 'He told something to someone (perf.)'

/kwáhus·i·k/ 'He talked (perf.)' /kwáhus·aya·yik/ 'He talked to him (perf.)'

/sú·mata·hík/ 'I'm angry (perf.)' /sú·mata·há·yak/ 'I'm making you angry (prog.)'

In the following examples, there is no difference in meaning, according to the informants:

/kwá·tem·i·kaʔ/ 'He swore at me (direct, trans.)' /kwá·tem·anti·kaʔ/

<aNti> and <a·ʔi> frequently participate in extension of the verb theme, i.e. one or the other can occur after any one of the inner group position classes (sV1-7) and before the addition of one of the outer group classes (sV8-10). The examples below, marked by the outer thematic suffix <-ik> ~ <-i·k> 'perfective', demonstrate the situation:
(1) /kwáhus•i•k/ 'He's talking'
(2) /kwáhus•aya•keyik/ 'He's talking to them'
(3) /kwáhus•aya•yik/ 'He's talking to him'

In (1) the transitive marker does not occur. In (2) we find the sequence <a•?i a•ki a•?i> in which <a•?i> follows <a•ki> 'collective' which belongs to sV7, the final position class in the inner group; this occurrence of <a•?i> is an example of extension of the verb theme by reiteration. In (3), in the sequence <a•?i a•?i>, the same phenomenon occurs.

412.2.4. Benefactive and reflexive (sV4). The members of sV4 are <yí•> 'benefactive' and <kwa•?i> 'reflexive'. These lexemes have the following morpholexical variants:

<table>
<thead>
<tr>
<th>Morphophonological</th>
<th>Morpholexical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Variant</td>
</tr>
<tr>
<td>&lt;yí•&gt;</td>
<td>yínt</td>
</tr>
<tr>
<td></td>
<td>yí•</td>
</tr>
<tr>
<td>&lt;kwa•?i&gt;</td>
<td>kwant</td>
</tr>
<tr>
<td></td>
<td>kwa•?i</td>
</tr>
</tbody>
</table>
The morpholexical variants <yínt> and <kwant> are petrified combinations which contain <aNti> 'transitive'. The lexemes providing the conditioning environments for these variants are the paucal perfective <Na•> and the directional transitive <i•ka>.

412.2.4.1. The benefactive. Themes containing the benefactive marker do not occur with passive verb prefixes (cf. 411.6.5.). Examples of usage follow.

/kwátituyínta•>/ 'I worked for him(perf.).'
/kwátituyí•k/ 'He worked for him(perf.).'
/kwírahampiyínti•ka?/ 'He brought me (a bucket of water)(i.e., reached down for me)(direct. trans.).'

In the following examples <yí•> occurs after the transitive marker <a•i•>:

/kwírirakmak•eyínta•>/ 'I did the work for her (i.e., reached here and there for her)(perf.).'
\(/\text{kúwá·kayí·kak}/\) 'I bought it for you\(\text{(coll. prog.)}\)'

\(/\text{kúwá·kayíntí·ka}\)/ 'He bought it for you\(\text{(coll. direct.trans.)}\)'

412.2.4.2. **The reflexive.** There are no examples of the reflexive preceded by the transitive marker. \(<\text{kwa·?i}>\) is tentatively assigned to \(\text{sV4}\) because it is not followed by the benefactive and it is followed by the reciprocal \(\text{(sV5)}\). It is possible that \(<\text{kwa·?i}>\) could be identified with \(<\text{kway}>\) 'up along' \(\text{(sV3)}\); however, there are no examples in the data of \(<\text{kway}>\) having a morphological variant.

Examples follow:

\(/\text{kwíru·tkikwanta}\)/ 'I unexpectedly ran up against something\(\text{(perf.)}\)'

\(/\text{ráx·akwaya·ka}\)/ 'He's got something in his mouth\(\text{(prog.)}\)'

\(/\text{tikaha·kwayik}\)/ 'He got dressed up\(\text{(perf.)}\)'

\(/\text{túhucíkwa·?impá·?}\)/ 'They were fighting because they were jealous\(\text{(perf.)}\)'

The above examples show \(<\text{kwa·?i}>\) followed by \(<\text{iNbú}>\) 'reciprocal'.

412.2.5. **Reciprocal \(\text{(sV5)}\).** \(<\text{iNbú}>\) 'reciprocal'
does not occur after the benefactive. For discussion of the phonological alternations involved in the phonemic representation of <i>Nbú</i> cf. I.220.

Examples are:

/kwí§iknimpá•/  'He's getting up on(something) (perf.).'

/kwíkatikimpá•/  'They were having an argument(perf.).'

/tá•a•kwitimpá•/  'He broke the stick in two (perf.).'

/kéhe•kni•wír/  'You(sg.)(a container with something in it) up on top of something!(hort.)'

/ká•a•kwit•yú/  'You(sg.) break a stick in two(hort.)!!'

For discussion of possible identification with <o>Nbú</o> 'through a circular/tubular space;' cf. 412.2.2.2.

412.2.6. Punctual Aspects (sV6). The punctual aspects are <-fcw> 'completive' and <ehéNpi> ~ <a•háNpi> 'iterative'. <ehéNpi> has the morpho-lexical variants <ehé•> and <e•há•> when occurring in final position in a theme;* elsewhere the variant <ehéNpi> occurs. <a•háNpi> has the morpho-lexical variant <a•há•> when occurring in final

i.e. before juncture.
position in a theme; elsewhere the morpholexical variant <a'hanpi> occurs.*

The completive and the iterative occur after the transitive marker (sV3) and the benefactive (sV4), and before the collective marker (sV7). Although there are no examples of occurrence before or after the reflexive (sV4) or the reciprocal (sV5), it is assumed the completive and iterative could occur after the reciprocal (sV5). The punctual aspects are considered to be in a different class from the reciprocal primarily for semantic reasons; therefore, the establishment of sV6 must be considered tentative.

The iterative often has a habitual meaning. Examples of use of the punctual aspects are:

/tikwáyac/ 'He's going to finish building (something)(vol.).'

/riwa'yehémpa•?/ 'The fire was started and is burning(dur.).'

/ɪkwírúkasehempik/ 'He tied a bandage on his

* The shapes of the markers for completive and iterative aspect are similar to or identical with the shape of the direction/location suffixes <cw> 'up', <cw> 'ablative' and <a'hanpi> ~ <haNpi> ~ <ehéNpi> 'downward; outward'.

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wrist(perf.).’
/kwi yakaká:’ac·e·ke’/ ‘They are all done scrapping out the container(perf.).’
/ki’ ehempe·ki·ma/ ‘You(sg.) take them wherever they want to go(ambul.).’
/kwérapsiraha·piruk/ ‘He’s coming back from putting water in a hole!(perf.).’
/rehiyawac·a’/ ‘He’s dressed and ready to go (dur.).’
/te·ma·há’/ ‘He’s going to stay up all night (perf.).’
/kustehé’/ ‘You(sg.) dance!(hort.)’
/kwé·ma·hámpe·ke’/ ‘They stayed up all night (perf.).’

In some of the examples above, the iterative unaccountably occurs without expected high tone.

412.2.7. The collective markers (sV7). There are two collective markers, <e·ki> and <a·ki>. These lexemes occur in the final position class in the inner group of thematic suffixes. There are no grammatical restrictions on their occurrence in themes. Both have the meaning ‘an individuated group’. In addition, <e·ki> has the semantic component ‘momentaneous/inceptive’ and <a·ki> has the
semantic component 'durative/stative'; e.g.

/kkehiyawaqwe·keʔ/ 'they are getting ready to move',

/kkehiyawaqwa·keʔ/ 'they are all ready to move'.

In theme extensions <e·ki> and <a·ki> can cooccur, e.g.,

/kwič·apura·ke·keʔ/ 'They are all hunched over'.

Semantically, the collective markers are used in reference to the subject, object or action of a verb (cf. discussion in 315.). In the examples below, noncollective themes are contrasted with collective themes in order to demonstrate the situation:

/kwím·ákwa·yantaʔ/ 'I told him' /kwím·ákwaya·kentaʔ/ 'I told them'

/kwím·akwik/ 'He told it' /kwím·ákwe·keʔ/ 'They told it'

/kwíricwe·keʔ/ 'He worked' /kwíricwe·keʔ/ (i.e., 'They worked'

reached (i.e., they(coll.)

upward reached up(coll.)

(coll.)

/kwám·arimpáʔ/ 'They(2) people are having a fight'

/kwám·ariwe·ke/ 'They(two groups) were all fighting'
412.3. **Outer thematic suffixes.** Suffixes that are members of classes sV8...10, the outer thematic classes, are described in this section. These classes include the distributive marker and the characteristic marker, both of which belong to sV8, and the nonpunctual aspect markers (sV9...10). Extension of the verb theme can take place before sV8...10 are added to a theme, i.e. reiteration of (vR sV1...7) is hypothetically possible.

sV8 marks the final position class in the neutral theme, whether or not the theme is extended. Any theme containing a member of classes sV9...10, nonpunctual aspects, is an aspectual theme.

412.3.1. **The distributive and the characteristic (sV8).** The distributive marker <iru> and the characteristic marker <-dr> are the members of sV8. These suffixes are described below.

412.3.1.1. **The distributive.** <iru> 'distributive' has the following morpholexical variants:

- <i·ru> ~ <i·r>, <iru> ~ <ir>, <-iru> ~ <-ir> occur before juncture.
- <-iru>, <-ir> occur after forms that end morphophonologically in <w,u,u>.
- <i·ru> ~ <iru> occur elsewhere.
There is also a dialect variant <i>in·u</i> (cf. 233.2.).

<i>iru</i> has the meaning 'an individuated group'. It can refer to the subject, object, or actor of a verb (cf. discussion in 315.).

Examples are:
/kirayú·wiru?/ ~ /kirayú·wi·rā?/ 'You(sg.) cover the coals(hort.).'
/kwíčkuruk/ 'He's eating something(perf.).'
/típsisurur/ 'He's going to be buried(vol.).'
/kéraxip·ir/ 'You(sg.) pull it(e.g. a spring or trigger)(hort.).'
/kwát·icwayruk/ 'He chased them(perf.).'.
/kwat·ic·a·kayra·?/ 'They chased them(dur.).'
/ráwra·ka?/ 'He's carrying a bundle.'
/kwéhe·nuka·huru·ma/ 'I jumped in the house with it(i.e. a container of individuable objects).'

412.3.1.2. The characteristic. <i>-ir</i> 'the characteristic' is found in final position in a neutral theme and before the nonpunctual aspect marker for durative <i>a·</i>(sV9). The only examples of themes containing the characteristic marker
occur with <kə> and <sqə>, the deverbative substantive prefixes which form substantive themes (cf. 422.6.).

The meaning of <ir> is "characteristic of what the verb theme describes", e.g.,

/kán·itaraxir/ 'a negro(i.e. characteristic of a black face).'

/píčutatac·ir/ 'an umbrella(i.e. characteristic of pushing up and spreading out).'

/pí·pa·kir/ ~ /pí·pa·kira·/ ~ /kí·pa·kira·/ 'a stinger.'
412.3.2. **Nonpunctual aspects(sV9...10).** The suffixes that mark the nonpunctual aspects fall into two position classes, sV9 and sV10. There are markers for eight aspects in sV9 and markers for three aspects in sV10.

412.3.2.1. **sV9 aspects.** The aspects in this class are as follows (the alternate forms are lexemic variants):

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Marker</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perfective:</strong></td>
<td></td>
</tr>
<tr>
<td>momentaneous</td>
<td>&lt;-ik&gt;</td>
</tr>
<tr>
<td>momentaneous paucal</td>
<td>&lt;Na•&gt; ~ &lt;me•&gt;</td>
</tr>
<tr>
<td>durative</td>
<td>&lt;a•&gt;</td>
</tr>
<tr>
<td>collective</td>
<td>&lt;e&gt;</td>
</tr>
<tr>
<td><strong>Nonperfective:</strong></td>
<td></td>
</tr>
<tr>
<td>continuative</td>
<td>&lt;Hma&gt;</td>
</tr>
<tr>
<td>imperfective</td>
<td>&lt;awa•&gt;</td>
</tr>
<tr>
<td>progressive</td>
<td>&lt;aka&gt;</td>
</tr>
<tr>
<td>ambulative</td>
<td>(&lt;a•mi&gt; ~ &lt;i•ma&gt;) ~ &lt;ika•&gt;</td>
</tr>
</tbody>
</table>
412.3.2.1.1. Perfective aspects. The collective perfective aspect marker, <e>, only occurs after the collective markers (sV7), which include in their semantic content the concepts 'momentaneous/inceptive' (<e·ki>) and 'durative/stative' (<a·ki>). The momentaneous paucal aspectual suffixes (<Na·> - <me·>), the momentaneous (<-ik>), and the durative aspect marker (<a·>) never occur after the collective suffixes; however, there are no formal restrictions on their occurrence with other position classes in the nonpunctual theme.

Semantic components. The collective perfective aspect has reference to an activity or state that takes place within a span of time that has definite limits. The momentaneous, momentaneous paucal, and durative distinguish semantic concepts which are neutralized in the perfective marker when it occurs after the collective markers; e.g.,

/kwíruhutá·nik/ 'He touched it.' (moment.)
/kwíruhutá·na·ʔ/ 'He rubbed it.' (dur.)
/yíruhutá·na·ʔ/ 'We(pauc.) touched/rubbed it'
/yíruhutá·na·keʔ/ 'We(coll.)rubbed it.'
/yíruhutá·ne·keʔ/ 'We (coll.) touched it.'
The momentaneous expresses momentary occurrence, including the notion of transition into states and states of activity; e.g.,

/wa'psahú kwí'k/ 'She's starting to menstruate.'

The momentaneous paucal has the semantic component of 'a few' (cf. discussion in 315).

The durative expresses a continued state or activity, e.g.,

/séniyawac'aʔ/ 'I'm dressed.'

**Morpholexical and lexemic variants.** <-ik>
'momentaneous' has the morpholexical variants <-ik> - <-iHk> after forms ending morphophonologically in <i,ɪ>.

<me> is a lexemic variant of <Na> 'momentaneous paucal'. This variation is assumed to be dialectal.

**Limitations on distribution.** Momentaneous paucal themes only occur with the prefixes of the declarative

*The verb radical in /kwí'k/ is <i> 'be(momentaneous)'.

<i> has the morpholexical variants <i> and <ik·i>;

<ik·i> occurs before juncture and <i> occurs before <-ik> 'momentaneous' and <e·ki> 'collective momentaneous'.

<i> and <a> 'be(durative)' occur only with the perfective and collective markers. They enter into construction with verb prefixes to form **equational** verbs which are the basis for one type of clause (cf. 313).
mode; themes marked by other perfective suffixes most frequently occur with the declarative, hortative, and subjunctive modal prefixes.

<e> is the only perfective member that is followed by a sVlo suffix; i.e., it can be followed by <m· ak> 'directional transitive', e.g. /ne·wá· kem· ak/ 'You(coll.) watch over us!' (imper.)

412.3.2.1.2. Nonperfective aspects. The nonperfective aspects are <Hma> 'continuative', <awa> 'imperfective', <aka> 'progressive', and (<i· ma> ~ <a· mi>) ~ <ika> 'ambulative'; examples are:

/kwí·sí·wáha·ma/ 'He's sighting along(a gun).'
/réhi·čawa·?/ 'He's resting.'
/rát·aičíkirakam· ak/ 'It's tight on me.'

The ambulative translates as 'go and....':
/te·wáka· mi/ 'He's going to go and look in the water.'

/čim·sí·ki·ma/ 'Let's go and see them!'
/kwí·pa·kika·?/ 'They went to bathe.'

Morpholexical and lexemic variation. <aka> and <ika> have the morpholexical variants <-aka> and <-ika> after forms ending morphophonologically in <u>; e.g. /kwí·puka·?/ 'He went and bathed.' <-aka> also occurs after forms ending morphophonologic-
ally in <y>; cf./rehé•naykak/'He’s coming hither on horseback.'

Elsewhere, <aka> has the variants <aka> ~ <a•ka> and <i•ka> has the variants <i•ka•> ~ <i•ka>, e.g. /rúra•ka?/ ~ /rúraka?/ 'He’s carrying a torchlight.'

/kwērirakmak•ika•?/ 'He went to work.'
/kwērehepe•ki•ka?/ 'He went to ask them to go.'

<awa•> 'imperfective' has the variation <awa•> ~ <-awa•>. <-awa•> occurs after the collective markers <e•ki> and <a•ki>; <awa•> occurs elsewhere, e.g. <réhi•kā•kiwa•?/ 'They are resting.'

The ambulative markers (<a•mi>, <i•ma>) and <ika•> occur in the same environments; however, the themes that <ika•> occurs in enter into construction with the prefixes of the declarative mode; whereas, <a•mi> and <i•ma> vary unpredictably in themes entering into construction with the prefixes marking the volitional and hortative modes. These two suffixes are in partial complementary distribution; i.e., <i•ma> occurs after the collective markers <e•ki> and <a•ki> and <a•mi> does not.
Limitations on distribution. <Hma> 'continuative', <awa> 'imperfective', and the ambulative markers never occur before the suffixes in sV10. The progressive marker <aka> can occur before <m·ak> 'directional transitive' and <ak> 'directional intransitive(hither)', both of which belong to sV10.

41P.3.2.2. sV10 aspects. The suffixes which belong to the final position class in the verb theme, i.e. sV10, are as follows:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directional(transitive)</td>
<td>&lt;i·ka&gt; ~ &lt;ak&gt; ~ &lt;m·ak&gt;</td>
</tr>
<tr>
<td>Directional (intransitive-</td>
<td>&lt;i·ka&gt; ~ &lt;ak&gt;</td>
</tr>
<tr>
<td>hither)</td>
<td></td>
</tr>
<tr>
<td>Directional (intransitive-</td>
<td>&lt;iHma&gt;</td>
</tr>
<tr>
<td>thither)</td>
<td></td>
</tr>
</tbody>
</table>

The above set of forms are problematical. There are questions as to position class assignment and the number of lexemes represented. <-

<-Hma> 'directional(intransitive→thither) is assigned to sV10 on the basis of semantic parallelism to <-i·ka>. <-i·ka> is assigned to sV10 because it has the same meaning as, and has similarity in distribution with, <ak> 'directional(intransitive) (hither). The two suffixes differ in that <ak> can
occur after the progressive marker (SV9) and 
<-ik'a> cannot; also <-ik'a> only occurs in themes 
that are in construction with the prefixes of the 
declarative mode, while there are no prefixal re-
strictions on the themes <ak'> occurs in.

<ak'> 'directional(intransitive-hither) is 
phonologically identical with <ak> 'directional 
transitive' and could be considered to have a 
meaning similar to that of the directional tran-
sitive markers.

<m•ak> is a directional(transitive) marker 
that often occurs in verb themes that are seman-
tically directional; however, it can also occur 
with other verb themes, e.g. /kútayaym•ak/ 'Let 
me alone!' Both <m•ak> and <ak> (directional 
transitive) occur after the progressive marker; 
it is these two forms that establish the position 
class.

The directional transitives <ak> and <i•ka> 
are in partial complementary distribution; i.e. 
<i•ka> occurs after <aNti> (SV3) and <ak> doesn't; 
however, both suffixes occur after <a•?i> (SV3), 
which is in more or less free variation with <aNti>.
The directional transitives translate as marking first singular and second person object; e.g.,

/kúwa·kayínti·kaʔ/ 'He bought it for you(coll.)'
/kwáwá·kaʔ/ 'They gave it to me.'
/ráτ·aykam·ak/ 'He's chasing me.'
/skanuhi·hampaṭaku/ 'You(ṣg) go get doctored!'
/típxan·áswayaku/ 'I'm going to wash your(ṣg) face.'

Since these suffixes do not mark other objects, it is possible that the function of the directional transitive markers is equivalent to that of the passive prefixes (cf. discussion in 411.6).
413. **Extension of the verb theme.** The neutral verb theme (cf. 412.) is extended by the reiteration of position class rv and/or one or more of the position classes making up the inner group of thematic suffixes, i.e. NVT : rv[sV1...8] can be expanded to read NVT : rv[sV1...7[rv sV1...7}sV8]. Such an expansion, which allows for maximal extension, is hypothetical only.

Reiteration does not imply reduplication; also, it is not necessary for a position class to have been filled in the nonextended theme in order for reiteration to take place, e.g., in the form

/ˈkwɪ·pa·ke·rāki·ma/ 'They swam all day'

the location/direction suffix <e·rāki> 'all day long' occurs only in the extension of the theme.

There are no examples in the data of sV1 (attributives) or sV5 (reciprocal) occurring in reiterated positions of the members of sV4 (benefactive and reflexive) only the benefactive is found in a reiterated position. There are infrequent examples of reiteration of sV2 (direction/location suffixes) and of vR (verb radicals). The benefactive, the transitive marker, the collective markers and the nonpunctual aspects occur most often in
reiterated positions; of these the transitive marker occurs the most frequently.

Examples of extended themes are:

<k'v usti ehempi ehempi -ik> : /k'ústehémpehémpik/
\text{rv} \quad \text{sv6} \quad \text{sv6} \quad \text{sv6}
\quad 'a dance hall'

<k'w usti ehempi e·ki cw -ik> : /k'ústehémpe·kic·ik/
\text{rv} \quad \text{sv6} \quad \text{sv7} \quad \text{sv6}
\quad 'They got through dancing'.

<k'w at·t cw·t a·ki a·?i iru a·> : /k'wá·t·ic·a·kayra·?/
\text{rv} \quad \text{sv2} \quad \text{sv7} \quad \text{sv3} \quad \text{sv8}
\quad 'They chased them.'

<t iču xixi cw e·ki rakmak·i iru a·> :
\text{rv} \quad \text{sv1} \quad \text{sv2} \quad \text{sv7} \quad \text{sv2} \quad \text{sv8}
\quad /tíčuxixic·e·kirakmak·ira·?/
\quad 'They(coll.) were barely lifting it(distr.) up here and there.'

<t iču karkar rakmak·i e·ki iru a·>:
\text{rv} \quad \text{sv1} \quad \text{sv2} \quad \text{sv7} \quad \text{sv8}
\quad /tíčukarkarakmak·e·kira·?/
\quad 'They were lifting at here and there.'
420. The substantive. Substantives are verb satellite expressions that can occur unmarked or with one or more substantival suffixes. Substantives are divided into themes called NOUNS, LOCATIVES, NUMERALS, PRONOUNS, and DEVERBATIVE (NOMINAL, GERUNDIAL, TEMPORAL).

421. The substantival suffixes. The substantival suffixes are as follows:

\[
\begin{align*}
<-\acute{H}> & \quad (V) & \text{'vocative'} \\
<-\acute{H}par> & \quad (C) & \text{'comitative'} \\
<-\acute{H}ta> & \quad (I) & \text{'instrumental'} \\
<-\acute{H}tu> & \quad (P) & \text{'possessive'} \\
<-\acute{H}tu\acute{u}> & \quad (Dt) & \text{'directional(thither)'} \\
<-\acute{H}tu\acute{u}k> & \quad (Dh) & \text{'directional(hither)'} \\
<-\acute{c}Hu> & \quad (A) & \text{'ablative'} \\
<-\acute{H}?i> & \quad (Lt) & \text{'locative(temporal)'} \\
<tuk> & \quad (Ls) & \text{'locative(spatial)'}
\end{align*}
\]

These suffixes fall into sets depending upon patterns of occurrence with substantive themes. A schematic presentation of theme-suffix occurrence is given below.
Theme | Suffix Pattern
---|---
NOUN₁ (cf. 422.1.) | [V,C,I,Dh, \{[P][Ls]\} A] \{[Dt]\}
NOUN₂ (cf. 422.1.) | [C,I,Dh, \{[P][Ls]\} A] \{[Dt]\}
LOCATIVE | \{[Ls,Dt]A,Dh,Lt\}
NUMERAL | \{[Ls,Dt]A,Dh\}
PRONOUN | \{[C],[P][Ls A]\}
NOMINAL | \{[C,I,Dh, \{[P][Ls]\} A],Lt\} \{[Dt]\}
GERUNDIAL | \{Lt\}
TEMPORAL | \{Lt\}

421.1. ــ<ــح Vocative. The vocative does not occur with other substantival suffixes and there are no examples in the corpus of expanded vocative expressions. The use of this suffix is usually limited to kinship terms and the lexeme <yah‘ar> 'child'. In tales, <yumaxá> 'old man', especially as an epithet for Coyote, occurs with vocative. Occasionally, in stories, the vocative is also found with animal names and terms for inanimate objects.

When occurring in conjunction with the clitic <na‘> 'addressative' (cf. II.480.), the vocative is used as a form of direct address.
Examples follow.

<ać'uk -éH> as in / الأسبوعية التي ي לרافقة

'wis'ík/ 'Sister, this is Panther,' (the elder sister) said.'

<umé' -эpsi ya·war éH> as in /요: 'umé'psiyawari'/

'Oh, you poor children!'

<ic'a -éH !> as in /íc'a: kiti'yak/ 'Rock, come near!'

<ac'it -éH na*> as in /ácití·na*/ 'Grandmother...'

421.2. -éHpar Comitative. The comitative does not occur with other substantival suffixes. It coordinates substantive expressions. A comitative substantive occurs as unexpanded or expanded. When it occurs as the satellite of two verbs, the result is a compound clause.

Unexpanded comitative expression.

<an'it -éHpar> as in /án'ití·par kwíru·ki·wá?/

'(She and her) aunt went together.'

Expanded comitative expression.

The following are examples of expanded comitative expressions as satellites of one verb:

<ap'ak há·-éHpar> as in /twé·we·e? é·sí·

kwač·ú? op·akí·par čá·xari·ná·?i/ 'Panther lived with his uncle, Mud Turtle'
In this example <*-éHpar*> occurs after <hí> 'referential'.

<ukhí -éHpar> as in /má?i? iná? ukhí*par
*i sax ské hu ya'ka?/ 'You(sg.) own a cane
and a pole.'

An example of a comitative expression occurring as the satellite of two verbs:
<i·cisí rak -éHpar> as in /kwá tak té*i ma
té*pxiya kika í·cisí raká par/ 'Coyote and
Raccoon set out on foot;
they were going to a dance.'

421.3. <-éHTa> Instrumental. The instrumental
does not occur with other substantival markers.
For the most part it has the meaning 'by means of'.
Instrumental expressions can be expanded.

Unexpanded instrumental expressions.
<pú *as -éHTa> as in /a kí ra· tumpí ʔahak·ira·
pú * así ta/ 'Serviceberries were set up along
the wall in sacks.'

<kí’ u · p a · ? i -ik -éHTa> as in /káris áčuhú
?wí’ k yáx·axé’ r kú’ pa·yikí·ta/ 'The children
became pretty indeed by
means of the painting.'
<um·aká·ʔi -éHta> as in /kí·učú ti·má·kira·ka
um·akáyta/ 'The yellowjackets carried the
pack upward.

**Expanded instrumental expressions.**

<ke·má·ta yúkma·ʔ kwač·ú kari·wák·aʔ/ 'On
the sixth day his brother
found him.'

<ke·hú·tikí·ta skúwam·aʔ/ 'You can't buy that
with Indian money.'

421.4. <-éHtu> Possessive. <-éHtu> has an irregular
phonemic shape in the environment of pronouns, i.e.
-éHtu : ú /ya·ʔa, ma·ʔi, kwač, ča·ká, ma·ká, kwa·ká

The possessive can form a theme which can
occur with the substantive suffixes <tuk> 'locative
(spatial)' and <-éHu> 'ablative'. Its occurrence
is obligatory in order for pronouns to occur with
these suffixes, e.g.,

<ya·ʔa -éHtu tuk> : /yap·útk/ 'at my place'
<ma·ʔi -éHtu -éHu> : /ma·múc·uʔ/ 'from yours'
<ča·ká -éHtu tuk -éHu> : /ča·kútukúc·uʔ/ 'from
our place'

A possessive expression occurs as the expansion
of any substantive expression except the vocative, locative (temporal), and the directional (hither). It is not known whether the exceptions are fortuitous or not.

Examples follow.
<pá·stin éHtu> as in /pá·stiní·tu? káhus·ik/
'English (i.e. white man's talk!)

<śarapxa éHtu> as in /uwswe·e śrapxá·tu?
śám·a·/ 'a brothel (i.e. devil woman's house)'
<es -éHtu> as in /má· in·á ḵisí·tu? ke·hítí·kít·ta
skúwam·ay/ 'You (sg.) can't buy that with
Indian money.'

<tarí·či -éHtu> as in /tári·čí·tu? ṭúk·axá·tuhú
kúč·ir ṭak·ír/ 'The arrow fell on the other
side of the woman.'

<kwač -éHtu> as in /yawwe·ne té·we·e kwac·ú
wa·tí·par/ 'Yawwe·ne and his father were
living together (someplace).'

421.5. <-éHtuhú> Directional (thither). The meaning of <-éHtuhú> is unclear. It is presumed to involve the concept of direction thither.

The directional (thither) suffix can form a theme to which the ablative suffix is added, e.g.,
<uwá• -éHtuhú • -éChu> as in /kwá•takči•

?uwá•tuhúc•u tíri•awhik•a?/ 'Coyote, too,
stuck his hand in the
hole from this side.'

Directional(thither) substantive expressions
can be expanded, e.g.,

<kwí is•a• aw ehempí -ik -éHtuhú> as in

/"wíčkarí•ic•e•ke? kwač•ú kís•awehempikí•tuhú?/

'He cleaned up everything
on the side where he always
stays.'

421.6. <-éHtuhúk> Directional(hither). This suffix
is a petrified form of <-éHtuhú> (cf. 421.5) and the
verb suffix <-ak• > <-ak• 'hither'. It's distribu-
tion is similar to that of <-éHtuhú>, with the
restriction that it cannot occur with <-éChu>
'ablative'.

There are very few examples of this suffix in
the corpus. One such example is <am•í -éHtuhúk>:

/ʔam•í•tuhúk/ 'on this side'.

421.7 <-éChu> Ablative. The ablative marks the
origin of an entity, e.g. <ač•áy• -éChu#ću•war>:

/ač•áyc•u čú•war/ 'luminary from the day (i.e.
the sun'), or it denotes 'motion away from', e.g.
<tú·rus tuk -échu> : /tú·rustukíc·u/ 'from inside the basket'.

The ablative expression, like the possessive, occurs as the expansion of any substantive expression except the vocative, locative(temporal), and the directional(hither).

(See II.421.4,5 for examples of cooccurrence of the ablative with other substantival suffixes).

421.8. <-áH?i> Locative(temporal). The temporal locative occurs in constituency with locative themes, the derived themes, nominal and gerundial, and with clauses containing verbs in the potential or declarative mode. When it is in constituency with a clause, it is suffixed to the verb.

Examples of its usage follow.

with locative theme:
/kwísmisí·ʔi/ 'at Christmas time'
/kurá·tiší·ʔi 'i·tnáʔ/ 'until spring'

with clauses:
/ku·čá sá· ké· číčku? ʔátuka sá·ʔi ke·hú·ti·k/ 'What are we going to eat if we haven't any money?'
/ʔu·ʔik·ačí· yí·páʔi/ 'when we were swimming'
421.9. <túk> Locative(spatial). <túk> is a marker of location in space. The best translation for it is "...is the place"; e.g.,
<e·čá ehé·wi túk> as in /ʔé·čéhé·witúk xúk·a kehe· háʔ/ 'ten is the place two lying across (i.e. twelve).
<aka·ha· túk> as in /ʔáka·ha·túk ?in·á? tárákwi·ka/ 'They fell out of the tree.'
<awáčay túk> as in /ʔawáčaytúk/ 'down to the creek'
<ipxa·n·a· túk> as in /ʔípxa·n·a·túk/ 'in the lake'
<is túk> as in /ʔístúk rú·wayakaʔ/ 'He is among those people.'
</túk> cooccurs with <-áHu> 'possessive' and <-áchHu> 'ablative'. For examples, cf. 421.4,7.

The locative suffix can form a theme to which the ablative suffix is added:
<tu·rus túk -áchHu> : /tu·rusxúkác·uʔ/ 'from inside the basket'.

Locative expressions occur expanded and unexpanded. An example of an expanded locative is
/yap·úʔ čikiman kúkmi·ruktúk/ 'my gold finding place' (i.e. where I found gold)

422. The substantive theme. Deverbative themes are based upon verb themes or verbs. The other substantive themes are subclassed on the basis of patterns of thematic suffixes, whose occurrence is optional. A nondeverbative theme consists of a radical with or without thematic suffix(es). There are only semantic restrictions against a substantive radical being a member of more than one theme class. Many radicals rarely occur with thematic suffixes or with substantival markers.

422.1. The noun thematic suffixes. There are eleven noun thematic suffixes that are synchronically isolable. Some of them are only marginally productive. These suffixes are discussed in the following sections.

422.1.1. <-ehnąʔi> definitive. This suffix, and also <hí> 'referential' with which it can occur (cf. 422.1.2.), forms noun themes that occur with all substantival markers except the vocative and the locative(temporal). There are no
examples in the corpus of its occurrence with thematic suffixes other than <ḥí>. Examples of its usage follow.

/mí·paw ｋǐmpí·ná·ʔ·i·paw ʔwícmasayma ʔátku·ná·ʔ·i·ču/
   'He slept only with the big one(i.e. elder one), not the small one(i.e. younger one)'

/čá·xari·ná·ʔ·tu·ʔá·mə·a/      'Turtle's house'

422.1.2. <ḥí> referential. All examples in the data have <ḥí> occurring with kinship terms. In the environment of <aní·> 'mother', <atá·> 'father' and <á·pu·> 'older brother', <ḥí> has the following phonemic shapes,

   <aní· ḥí> : /ʔáni·náʔ/
   <atá· ḥí> : /ʔáta·táʔ/
   <á·pu· ḥí> : /ʔá·pu·púʔ/

This suffix, like <-eHná·ʔi·> (cf. 422.1.1.) forms noun themes that occur with all substantival markers except the vocative and the locative (temporal). Examples of usage are given below.

/mí· ké· kwác ʔu·ʔíʔa·khwí·ná·ʔ·í·kaʔ/ 'That would be the son'.

In the example above, we find <ḥí> cooccurring with <-eHná·ʔi·>; i.e. a·khwí ḥí <eHná·ʔi·>
'son-referential-definitive'

/ʔíwa·súr té·xe·keʔ ʔu·má·nučí·tuʔ ʔá·hu·híyá·war/
'ʔu·má·nuč's brothers were
sick at heart.'

/ʔání·níʔ ʔáta·tá·par' kwé·a·ma/ 'Mother and
Father went hunting.'

422.1.3. Number suffixes. The two thematic
suffixes that mark number are described below.
Themes formed with these suffixes can occur with
all substantival suffixes except the locative.
(temporal). These suffixes cannot be followed
by other thematic markers. Although they can be
preceded by other suffixes, they, themselves, are
mutually exclusive.

422.1.3.1. <yá·war> collective. This lexeme,
which has a frequent variant <yá·r>, primarily
refers to animate things; however, it is infre-
quently used in reference to things inanimate,
e.g. /čínkiniyá·war/ 'shells(var.).' Examples
of the more usual usage are as follows:

/ʔú·pitaktakyá·war/ 'a bunch of hounds'
/tarí·čiyá·war/ 'a group of women'
/ʔin·áyá·warik·áskwa·...míʔ ʔíkhwi ʔkwáwi·kaʔ/
'They are the ones that
gave me a boat.'
In the example above, the verb /kwáwi·kaʔ/ is unmarked for collectiveness. Although, collective noun themes often occur with verbs marked for collectiveness, agreement as to collectiveness between a noun satellite and the verb is not obligatory.

422.1.3.2. <xa·yxér> paucal diminutive. This lexeme, which has the frequent variant <xé·r>, is most often used in reference to the young of animals that bear only a few offspring, e.g. /ʔé·xa·xa·yxér/ 'bear cubs', as opposed to animals that bear litters. An example of usage is /kás mí· kimpíxa·yxér rá·keʔ/ 'They are getting pretty big.'.

The lexeme <yah·ar> 'child' has an irregular phonemic shape when occurring with <xa·yxér>; i.e. <yah·ar xa·yxér> : /yáx·axa·yxér/ 'children'.

422.1.4. Attributive suffixes. There are a few suffixes that stand in an attributive relationship to the radicals they occur with. There are only semantic restrictions on their cooccurrence with the number suffixes.

422.1.4.1. <-ehé·nax> ~ <-ehé·rax> 'female'. The following are examples of usage of this suffix
whose occurrence is infrequent:

<e·tiski -ehé·nax> : /oē·tiskehé·nax/ 'morning star (Venus)'

<u·sa -ehé·nax> : /ʊ·sahé·nax/ 'a promiscuous woman'

<uswe·e -ehé·nax> : /ʊswē·e·ehé·nax/ 'a she-devil'

<kicuk -ehé·rax> : /kicukhe·rax/ 'a woman doctor'

It also occurs in the form /yú·čehé·nax/ 'a Yuki(?) woman'.

Presumably the radical in this form ends morphophonologically in a vowel. If so, we have here an example of an irregular phonemic shape for <-ehé·nax>, i.e. the expected vowel apheresis does not take place.

In the form /oā·rakahé·nax/ 'evening star (Venus)', we find the variant shape <-ahé·nax>.

422.1.4.2. <taktak>. The translations for <taktak> are 'loose, floppy, baggy'. It is marginally productive. Examples of usage are:

/miritaktak/ 'Floppy Mary (pers. name)' and
/ʊ́·pitaktak/ 'a lop-eared dog (i.e. hound)'.

422.1.4.3. <-epsi> 'pitiful'. Examples of
usage are as follows:

/yap·úkupsi/  'a bucket belonging to someone who is dead'

/súk·axapsi/  'a pitiful boy' (as used in reference to a bachelor)

422.1.4.4.  <xí·yáx> 'diminutive'. Examples of usage are as follows:

/?á·psuxí·yáx/  'a little dog'

/?ípxa·n·a·xí·yáx/  'a little lake'

This suffix can also occur as an enclitic (cf. 450.). In /?am·axxí·yáx/, 'a little way', it occurs with a locative, and in /?i·yaxá túp·iyá·raxí·yáx/, 'I'd better have a little nap', it occurs with a verb in the volitional mode.

422.1.4.5.  <-eknak> 'big'. Examples of usage are:

/ápka -eknak/ : 'hand-big' : /ápkaknak/ 'thumb'

/kímpí -eknak/ 'big-big' : /kímpíknak/ 'a great big one'

/kári·wá -eknak/ 'brother-big' : /kári·wáknak/ 'eldest brother'

422.1.5.  <-iHhi> ~ <-iHwi> 'animal hair'. This suffix also has the variant shapes <-a·hi> ~ <-a·wi>.
It is not possible to predict which of the four variants will occur. Cp. /kwa·taka·hi/ ~ /kwá·taka·wi/ 'coyote hide' and /tiní·čxuki·wi/ 'raccoon hide', /a·ráwi·hi/ 'deerhide'.

422.1.6. *yé·yu* factitive. This suffix can follow <-iňhi> ~ <-iHwi> 'animal hair'. It has the variant shape <-yHyu>; e.g.,

/čút·a·ńwi·yu/ 'something made out of gray squirrel hide.

Other examples are:

<atká· -yHyu>: /?atká·yu/ 'a lot of wild plums'

<čítuk·u yé·yu>: /čítuk·uyé·yu/ 'fat around the kidney'

422.2. Locative thematic affixes. There is one locative thematic prefix and there are eight locative thematic suffixes. These are described in the following sections.

The discussion of the suffixes is organized according to the following patterns which are mutually exclusive.

(1) \[\left\{\begin{array}{c}
<é·ra> <hi·hi> \\
<hi·> \\
<hi·ki> ~ <é·ki>
\end{array}\right\}

(See 422.2,3,4,5).
(2) \[
\{ <\text{tíč}> \} \cdot <\text{axá}>
\]

(See 422,6,7,8).

422.2.1. \texttt{<ku>} place name prefix. Examples follow:

\texttt{<čáwa\textsuperscript{č}k> 'jaw': /\texttt{kučáwa\textsuperscript{č}k}/ 'name of a little hill(spec.)'}

\texttt{<č\textsuperscript{č}tá\textsuperscript{č}> 'head louse': /\texttt{kuč\textsuperscript{č}tá\textsuperscript{č}/ 'a deerlick (spec.)'}

422.2.2. \texttt{<-éra>} characterized by. This suffix can occur before \texttt{<hi\textsuperscript{č}hú>} 'plant, bush' and before \texttt{<č\textsuperscript{č}á\textsuperscript{č}ki>} 'collective locative'. Examples are:

\texttt{<\textsuperscript{č}h\textsuperscript{č}tá\textsuperscript{č} -éra\textsuperscript{č} hi\textsuperscript{č}hú \textsuperscript{č}h\textsuperscript{č}á\textsuperscript{č}ki> 'wild-plum characterized-by bush collective-locative':}

/\texttt{\textsuperscript{č}h\textsuperscript{č}tá\textsuperscript{č}rah\textsuperscript{č}hi\textsuperscript{č}hu\textsuperscript{č}á\textsuperscript{č}ki}/ 'wild plum bush country'.

\texttt{<\textsuperscript{č}ac\textsuperscript{č}a -éra\textsuperscript{č}>: /\texttt{\textsuperscript{č}ac\textsuperscript{č}ára\textsuperscript{č}/ 'water-characterized-by (i.e. wet)'}

\texttt{<\textsuperscript{č}t\textsuperscript{č}arak -éra\textsuperscript{č}>: /\texttt{\textsuperscript{č}t\textsuperscript{č}arak\textsuperscript{č}ára\textsuperscript{č}/ 'dirty'}

422.2.3. \texttt{<hi\textsuperscript{č}hú>} plant, bush. This suffix can occur before \texttt{<č\textsuperscript{č}á\textsuperscript{č}ki>} 'collective locative'. Examples are as follows:

\texttt{<č\textsuperscript{č}it\textsuperscript{č}at hi\textsuperscript{č}hú>: /\texttt{\textsuperscript{č}it\textsuperscript{č}athi\textsuperscript{č}hú}/ 'applebird-plant(i.e. fern(var.))'}
<mantá'x hi·hú há·ki> 'grapes plant collective-locative': /mantá'xhi·huwá'ki/ 'where there are grapevines'.

<píčis hi·hú>: /píčishi·hú/ 'a peach tree'

There are petrified forms containing this suffix; e.g. /na·hú/ ~ /nahú/ ~ /sána·x·hú/ ~ /sána·x·hú/ 'cedar'.

422.2.4. <hi·> (?). The meaning of this lexeme is uncertain. It does not occur after other locative thematic suffixes. It only occurs before <há·ki>~ <é·ki> 'collective locative (cf. 422.2.5.). Examples are:

<i'kni·his hi· há'ki> 'celeryroot' ? coll-loc.':

/okn'hi·shí·wá'ki/ 'where wild celery grows thick'

<yumaaxá hi· há'ki> 'oldman ? coll-loc.':

/yumaaxáhi·wá'ki/ '(with) the old men'

<e'wará·r hi·há'ki> 'boy-paucal ? coll-loc.':

/óe'wará·rhí·wá'ki/ '(with) the boys'

<i'pxa·n'a· hi· é·ki> 'lake ? coll-loc.':

/óipxa·n'a·yé'ki/ 'a lot of little lakes'

(cp. <ipxa·n'a· há'ki>: /óipxa·n'a·ki/ 'lake country').

422.2.5. Collective locative. The collective locative has the variant shapes <há'ki> and <é·ki>.
These shapes are in partial complementary distribution: 〈é·ki〉 occurs after lexemes whose morphophonological shapes end in a front vowel, or front vowel plus consonant, or apical consonant (i.e. 〈i,e[C],T〉; 〈há·ki〉 occurs as /wa·ki/ after 〈hi·hú〉 'plant, bush' and 〈hi〉 '?' and as /á·ki/ after lexemes whose morphophonological shapes end in a back vowel or back vowel plus nonapical consonant (i.e. 〈u,a[P]〉. Examples are:

〈wak·we·é·ki〉 : /wak·we·ki/ 'mountain country'
〈čik·é·ki〉 : /čiké·ki/ 'in the mud'
〈kíka·čé·ki〉 : /kíka·čé·ki/ 'kíka·č country'
〈a·wa·s hi·hú há·ki〉 'madrone tree coll-loc.' : /a·wa·shi·húwá·ki/ 'where madrones grow'
〈e·wará·r hi·há·ki〉 'boy-paucal ? coll-loc.' : /e·wará·rhi·wa·ki/ '(with) the boys'
〈čururu há·ki〉 : /čururá·ki/ 'brush country'
〈ac·a há·ki〉 ; /ac·á·ki/ 'swampy ground'
〈ičkák há·ki〉 'heavy, strong coll-loc.' : /ičkaká·ki/ 'hard ground'
〈há·ki〉 and 〈é·ki〉 also occur in the same environments; e.g.
<uswé·e há·ki> : /*uswé·ehá·ki/ 'devil country (i.e. hell)'; <wak·we· é·ki> : /wak·wé·ki/ 'mountain country.' (n.b. /úswé·á·ki/ 'hell(CW)').

<ipxa·n·a· hi· é·ki> : /*ípxa·n·a·yé·ki/ 'a lot of little lakes'; <yač·apxa· hi· há·ki> 'girl-paucal ? coll-loc.' : /yáč·apxa·hi·wá·ki/ '(with) the girls'.

422.2.6. <tíč> quantitative. The only locative thematic suffix this lexeme occurs before is <-axá> '?' (cp. 422.2.8.). Examples of its usage are as follows:

<is·í· tíč> 'middle quant.' : /*is·í·tíč/ 'half of'
<br><in·á tíč axá> 'that one quant. ?': /*in·atíčaxá?/
<br>as big as that one
<br><kurá·tíč> 'where quantitative' : /kura·tíč/ 'How much?'
<br><kurá·tíč -éH?i> 'where quant.'loc(temp)' ; <kurá·tíči·?i>/ 'at what time...?'

422.2.7. <m·a·> hither. This suffix has the phonemic shape /ma·/ after a morphophonological shape that ends in a consonant; e.g.

<uk·áx m·a·> 'a-long-way hither': /*uk·áxma·/
<br>'far away'

<m·a·> occurs before <-axá> ? (cp. 422.2.8.). Examples of this and other usage follow:
<ihí·ni m·a·> 'a-length-of-time hither':
/ʔihí·nim·a·/ 'afterward'

<ihí·ni m·a· -axá> 'a-length-of-time hither?':
/ʔihí·nim·a·xá/ 'quite a while afterwards'

<ká·ʔu m·a·> 'now hither': /ká·ʔum·a·/ 'right now'

422.2.8. <axá·> (?). The meaning of this suffix is uncertain. Examples are:

<ihí·ni m·a· -axá> 'a-length-of-time hither?':
/ʔihí·nim·a·xá/ 'quite a while afterwards'

<kurá· -axá -őchHu> as in /kura·xá·ču·gi· ste·ʔ·akak/
'Where are you(coll.) coming from?'

<mi· -axá> : /mi·xá> 'over that way'

<ká·ʔu -axá -őchHu> 'now? abl.': /ká·ʔuxá·c·u/
'not long ago'

<am·áx -axá> 'close by?': /ʔam·áxaxá?/ 'not far away'

The following example, in contrast to the immediately preceding one, contradicts the morphophonological rule concerning behavior of vowels
after consonants, e.g.

<uk·áx -axá -éHtuhú> 'a long way? direct.(thither):

/ʔúk·axaxá·tuhú/ 'on the other side'
422.3. Pronouns. Pronouns are characterized by inherent number and person and the fact that they cannot be expanded. They can occur with the noun thematic suffix <-$\text{Hná} \cdot \text{i} ->$ definitive, and the substantival markers <-$\text{Htu} ->$ possessive and <-$\text{Hpar} ->$ comitative; however, they do not occur with other suffixes. The pronominal paradigm is given below.

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P    &lt;ya\cdot a&gt;</td>
<td>&lt;ča\cdot ká&gt;</td>
</tr>
<tr>
<td>2P    &lt;ma\cdot i&gt;</td>
<td>&lt;ma\cdot ká&gt;</td>
</tr>
<tr>
<td>3P    &lt;kwač&gt;</td>
<td>&lt;kwač\cdot ká&gt;</td>
</tr>
</tbody>
</table>

When occurring with the possessive marker, pronouns have the following phonological shapes:

<table>
<thead>
<tr>
<th>Morphophonological</th>
<th>Phonemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Shape</td>
</tr>
<tr>
<td>ya\cdot a</td>
<td>yap\cdot ya\cdot p</td>
</tr>
<tr>
<td>ma\cdot i</td>
<td>ma\cdot m</td>
</tr>
<tr>
<td>kwač</td>
<td>kwač\cdot</td>
</tr>
<tr>
<td>ča\cdot ká</td>
<td>ča\cdot k</td>
</tr>
<tr>
<td>ma\cdot ká</td>
<td>ma\cdot k</td>
</tr>
<tr>
<td>kwač\cdot ká</td>
<td>kwač\cdot k</td>
</tr>
</tbody>
</table>

Examples are as follows:
/yap\cdot útúk/ ~ /ya\cdot pútúk/  'at my place'
| /maːmûtûk/ | 'at your (sg.) place' |
| /kwaːkûtûk/ | 'at his place' |
| /čaːkûtûk/ | 'at our place' |
| /maːkûtûk/ | 'at your (pl.) place' |
| /kwaːkûtûk/ | 'at their place' |
422.4. **Numeral themes.** The Shasta counting system is based on five substantive radicals and six thematic suffixes. The lexemes involved are charted below. The numbers in the chart represent the glosses for constructions resulting from the combination of radical and thematic suffix; read 'x' beside a number as 'times'. (Assume the thematic suffixes are mutually exclusive; discussion of their cooccurrence possibilities follows the morpholexical statements below.)

<table>
<thead>
<tr>
<th>RADICAL</th>
<th>THEMATIC SUFFIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;wa•te•há'&gt;</td>
<td>&lt;ehé•wi&gt;&lt;Hhi•s&gt;&lt;nay&gt;&lt;?i•rú&gt;&lt;-ýHyu&gt;</td>
</tr>
<tr>
<td>&lt;če•?a&gt;</td>
<td>6 20 1x</td>
</tr>
<tr>
<td>'one'</td>
<td></td>
</tr>
<tr>
<td>&lt;xuk•a&gt;</td>
<td>7 40 2x 2x</td>
</tr>
<tr>
<td>'two'</td>
<td></td>
</tr>
<tr>
<td>&lt;xački&gt;</td>
<td>8 60 3x</td>
</tr>
<tr>
<td>'three'</td>
<td></td>
</tr>
<tr>
<td>&lt;iraha•ya'&gt;</td>
<td>9 80 4x</td>
</tr>
<tr>
<td>'four'</td>
<td></td>
</tr>
<tr>
<td>&lt;e•čá&gt;</td>
<td>10 100 5x</td>
</tr>
<tr>
<td>'five'</td>
<td></td>
</tr>
</tbody>
</table>
No glosses can be assigned to <wa·te·há·> or <ehé·wi>. <Hhi·s> is a vigesimal marker. <?i·rú> and <-vHyu> are multiplicatives. <nay> and a variant shape <n·imá·?i> occur only with <čé·?a> and the resulting constructions are translated 'once'.

<xαčki> has the variant shape <xαckki>. <Hhi·s> has the phonemic variants /’hi·s/ and /’his/.

The following morpholexical variations occur:

<table>
<thead>
<tr>
<th>Shape</th>
<th>Variant</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>če·?a</td>
<td>ču</td>
<td>/wa·te·há·</td>
</tr>
<tr>
<td>če·</td>
<td></td>
<td>/nay, n·imá·?i</td>
</tr>
<tr>
<td>wa·te·há</td>
<td>wa·t</td>
<td>/?i·rú</td>
</tr>
<tr>
<td>xuk·a</td>
<td>xuk·a</td>
<td>/?i·rú</td>
</tr>
<tr>
<td>?i·rú</td>
<td>?ír</td>
<td>/xuk·a</td>
</tr>
<tr>
<td>e·rú</td>
<td></td>
<td>/iráha·ya·</td>
</tr>
<tr>
<td>i·rú</td>
<td>/wa·t</td>
<td></td>
</tr>
<tr>
<td>ír</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The constructions formed with <wa·te·há·> and <Hhi·s> can occur with <?i·rú>; <e·čá ehé·wi> 'ten', like <xαčki> 'three', occurs with <-vHyu>.
/šúwa·ti·rú/  'six times'
/ʃíraha·ya·wa·ti·rú/  'nine times'
/še·hi·sír/  'twenty times'
/ʃe·šehe·wi·yu/  'ten times'

Constructions formed with <wa·te·há•> cannot occur with <Hhi•s•>.

The numeral themes are rarely used with substantival markers. There are no examples of multiplicatives formed with <i·ru•> or <-vHyu•> occurring with substantival markers. <i·ru•> and <-vHyu•> also occur with <tá•wi•> 'amount'. Cp. the following dialogs:

Question: /ta·wi·yu ké•? túwata·yrak/  'How many shall I bring?'

Answer: /xackí·yu/  'Three.'

Question: /ta·wírri•:ké· tá•?/  'How many were there?'

Answer: /xuká·yu/  'Two.'

Number concepts, excluding 1-10 and multiples of 20 and 100, are expressed by a substantival construction formed with <túk>, 'loc.(spat.)' and the nominal deverbative <ká·e·he·há•> 'lying across', e.g.,
"é·čehé·wituk "e·čá· ke·he·há·?" 'fifteen'
/xúk·a·hi·stúk "e·čehé·wi ke·he·há·?" 'fifty'
/čé·histúk "íraha·ya·wa·te·há·? ke·he·há·?" 'twenty
nine'

The adverb <ći·mi> 'again' is optionally used in such constructions, e.g.,
/xáčki·histúk cí·mi "e·čehé·wi ke·he·há·?" 'seventy'

Multiples of 100, excluding 1000, are expressed as follows:
/xáčkiwa·ti·rú "e·čá·hi·s/ 'eight hundred (i.e. eight times one hundred)'.

The form for 1000 is /"é·čehé·wi·his/, (i.e. 'ten-vigesimal' (or 2000 ?).
422.5. **Residual thematic suffixes.** Lack of distributional evidence militates against unequivocal class assignment of a residue of suffixes. These forms have tentatively been considered as substantival or as locative thematic.

422.5.1. `<eHrú>(?)`. This lexeme is arbitrarily categorized as a substantival suffix. It seems to mark the concept of comitative. The examples extant in the data are given below:

<yah•ar -eHrú> 'child?' as in /ʔac•e•

yáh•ara•ríʔ/ 'a female grizzly bear with one cub'

<čirik -eHrú> 'young elk?' as in /čiriki•ríʔ/

'a female elk with a young elk'

<čup•ax -eHrú> 'fawn?' as in /čúp•axa•ríʔ/ 'a doe with a fawn'

422.5.2. **Residual locative thematic suffixes.** The residual suffixes which have been tentatively categorized locative thematic fall into three semantic groups: aspectual, body part locative, and directional.

422.5.2.1. **Aspectual residue.** The two suffixes in this group are described below.
422.5.2.1.1. <yá·ki> durative. This suffix has the lexemic variant <hí·ya·ki> which occurs in one example, i.e. <wak·wí hí·ya·ki>: /wák·wi·hi·ya·ki/ 'all winter long'.

Other examples are:
<yá·ki>: /yá·ki/ 'all day long'
<apxá· yá·ki>: /apxa·yá·ki/ 'all night long'
<ata·hi· yá·ki>: /ata·hi·yá·ki/ 'all summer long'

422.5.2.1.2. <Hma> continuous. This lexeme is also a verb thematic suffix. It occurs in the substantive system in the following example:
<ayax̱í Hma> as in /yá·yax̱í·ma číricwe·ki?/ 'We're going to work again tomorrow.'

422.5.2.2. <-eHwí·ma> body part locative. This suffix occurs with the substantive radicals <ičwat> 'chest' and <e·pka> 'nape of neck':
/ičwatí·wí·ma/ 'all over the chest'
/e·pka·wí·ma/ 'the whole back of the head'

It also occurs with nominal themes:
<kvé ehení -eHwí·ma>: /kéhení·wí·ma/ 'around the tongue'
<kvé e·ri -eHwí·ma>: /ké·ri·wí·ma/ 'the end of the nose'
<kѵ iru -еHwі�'ma>: /kipu'vei'ma/ 'male genitalia'
<kѵ u·pči -еHwіι'ma>: /kipu'vei'ma/ 'on the shoulder'

This suffix cannot be used with body part terms such as:
<ě·raw> 'navel', <apka> 'hand, fingers, arm',
<ičxi·k> 'penis', <arawā·?i> 'leg'.

422.5.2.3. Directional residue. There are three residual suffixes which have directional meaning.

422.5.2.3.1. <ay·ay> ~ <yά·ay>. The two examples in the corpus are as follows:
/mi·tiča·ay/ 'quite a ways'
/mi·yά·ay/ 'way over yonder'

422.5.2.3.2. <hu·rú> upstream(creek). The examples are:
<uка· hu·rú>: /uка·hu·rú/ 'upstream(creek)'
cf. /uка·hu·rú·tuhú?/ 'up the creek from there'
/uка·hu·rú·c·u/ 'from up the creek' (as name for the Scott River Shasta)

422.5.2.3.3. <tú> upstream(river). The examples are:
<uка· tů>: /uка·tů?/ 'up the river'
cf. /uка·tůc·u ?ís/ 'a person from up the river'
422.6. The nominal theme. The deverbative nominalizing prefix <kva>, which has the variant <kva>, occurs with verb themes to form a construction than can enter into constituency with a substantival marker. This type of theme formation is very productive. The restrictions on the kinds of verb themes that can be nominalized are unknown.

Examples are as follows:

/kan·ití·k/    'chopping(perf.)'
/kí·e·ke?/     'the ones they had with them(perf.)'
/ké·kaha·ma/  'father(i.e. 'watching ahead')(cont.) as in
/ké·kaha·ma·tu·sá·tawac/ 'Father's horse'.
/kí·pa·kira? ~ /ʔí·pa·kira?/ 'a stinger(dur.).'
/ʔáris·á·ki?/  'a suitable place(neut.).'

422.7. The gerundial theme. A gerundial verb (i.e. a verb construction containing the declarative gerundial prefix <wv> plus an aspectual theme) functions as a deverbative substantive theme which occurs with substantival marker to form verb satellite expressions that can occur expanded or unexpanded, e.g.
/ˈwɪk̚waˈháwaˈtúk/ 'up in the corner there'
/ˈʊmˈakáy ˈwɪsˈáˈkwaya/ 'God (i.e. the one sitting up over head).'

In both the examples above, the verb theme is in the durative aspect.

422.8. The temporal theme. Verbs in the potential, subjunctive and declarative modes function as deverbative substantive themes that occur only with the temporal locative suffix <-ó̊hí>. The resulting construction is a temporal locative expression that is a satellite of a verb, e.g.

/yímˈakwantay míˈ ʃɛɾuˈkaˈríˈʔi/ 'He would tell him if he asked.'

/yiˈčkwáˈʔi/ 'When we(pauc.) were eating.'
/yiˈčkwaxˈkeˈʔi/ 'When a whole bunch of us were eating.'
430. The adverb. An adverb is a verb satellite that is never in constituency with thematic or substantival suffixes. Adverbs never occur expanded.

The above statements characterize all the lexemes in this class; however, it is possible that further analysis would reveal the necessity for a more refined classification than has been made.

The adverbs found in the corpus are discussed below.

430.1. Invocatory adverbs. The invocatory adverbs form a semantic group. They divide into maledictory and neutral groups. These adverbs always occur in first tactic position in an utterance.

The maledictory group consists of <huswa> and <na·má·>. <huswa> is used with verbs in the hortative mode; <na·má·> is used with verbs in the volitional mode. Examples are:

/húswa kakácki?/ 'Would that you would trip!'
(A variant form <hawa> was elicited from CW).

/na·má· stakácki?/ 'Would that you would trip!'

The neutral group of adverbs consists of <i·ya>,
<i·yaxá> (and <i·ya·sú> (CW)), and <taha>.
<i·yaxá> and <i·ya·sú> are petrified forms containing <i·ya>. These forms are used with verbs in hortative and volitional modes. Examples of usage are:

/ʔí·ya čé·kahaʔ kenétap·ik/  'Let's watch the gambling!' (hort.)

/ʔí·ya wé·tičíʔi tic·ik/  'Would that I could drink now!' (vol.)

/ʔí·yaxáʔ tup·iyá·raxí·yáx/  'He'd better have a little nap!' (vol)

/ʔí·ya·sú mí· kwaččí· rú·waʔi/  'Let him be with the group!' (hort.)

/táha čim·á·mi/  'Let's go and see!' (hort.)

/táhačú yáʔaʔ tá·raʔ/  'Let me throw the long object!' (vol.)

/táhaču kim·ákwaya·yak/  'Please tell me about it!' (hort.)

430.2. **Emotive adverbs.** There are three adverbs whose meaning are unknown; they seem to mark emotive, or expressive, content:
<sira'> as in /kwi·yá·čača· makáy síra-
yá·'a? ku·čá? sǐkhyeswa·/ 'I thought that I
hear something!'  
<isa'> as in /ku·čá? 'ísá·'a? tís·áy/ 'What
are you saying?'  
<makáy> as in (1) above and: /kwi·yá·čača·
makáy kás sá· tú·'ihi ā'at·a?/ 'I thought I
would go some
other time.'  
/makáy 'ís tíč·e·'ke? rákapíá/ 'They were
drinking lager
beer.'  
/makáyču mí' xuwa·tirík·a? stúwa·'ak/ 'Would
that a rattlesnake
will strike you!'  
/makáy ríkaha·kwaya·/ 'He's sure dressed
up!'  
/makáy kwač·ú 'ke·kwáyik kwántu·me·/ 'I mentioned
his name.'

430.3. <sa'> first person volitional marker.  
<sa'> is used optionally with the first person voli-
tional; e.g.  
/ťičku sá·/ 'I'll eat', /čičku sá·/ 'we'll eat'.  
Although its occurrence is optional, <sa'> is often
used to differentiate both first person and volitional when there is a possibility of ambiguity; e.g.,

/čéʔ·aʔ/   'Let's go!' (hort.)
/čéʔ·aʔ sáʔ/ 'We'll go.' (vol.)
/wá·ra sáʔ ṭinʔ·eʔ· píʔ·astük/ 'I'll put dried salmon in a sack.' (vol.)
/wá·ra ṭinʔ·eʔ· púʔ·astük/ 'He'll put dried salmon in a sack.' (vol.)

430.4. <maʔ> 'not'. <maʔ> is the negative marker. It occurs not only as a verb satellite, but also in expansions of substantive expressions:

/máʔ ṭinʔ·aʔ skutisʔ·aʔ·yaʔ/ 'Don't say that to me!'
/máʔ tá·wi ke·mám·u/ 'not a few days hence (i.e. before long)'
/máʔ míʔ ṭinʔ·aʔ tútəʔ/ 'That's not the way to do.'
/ʔiʔ·ya míʔ máʔ kwaʔčiʔ· rú·walʔiʔ/ 'Don't let him be with the group!'

430.5. Adverbs expressing uncertainty. There are two lexemes in this group <xamí> 'maybe' and
<sí·way> 'it is possible that...'. <sí·way> is used with verbs in volitional mode. <xamí> is used with verbs in the volitional and declarative modes.

Examples are:
/xamí sá· te·wi·ka·hu?/ 'Maybe I'll move in.' (vol.)
/tíkwacá·?i·ma xamí/ 'He must have gotten hungry.' (decl.rep.)
/makáy xamí té·e·kik/ 'Maybe it's cooked!' (decl.rep.)
/sí·way ?a·yé·keʔ/ 'They might cry.' (vol.)
/?is·ik sí·way stik·íʔ/ 'You might get cold.' (vol.)

430.6. **Miscellaneous adverbs.** The adverbs in their group represent a semantic miscellany.

(1) <či·mi> 'again'. <či·mi> occurs in utterances such as /či·mi ?a·yax·ʔ típ·iknam·ikaʔ/ 'Again the next day they went to look up over[it].'

It also can occur in expansions of substantival expressions, e.g.,
/či·mi čé·ʔatúk/ 'again one-loc.(spat.)' (i.e. at another place)
(See 422.4. for an example of <či·mi> occurring in
a substantial expression used in counting.)

(2) <ma·hi> 'first'. Examples of usage are:
    /yá·ʔa· má·hi te·cní·ʔ/ 'I'll sing first!'  
    /ʔu·ʔí má·hi mí· kwá·yaknik/ 'He was the first one who went by.'  

(3) <xa·káw> '?!'. Examples of usage are:
    /kás xa·káw in·á? číčku/ 'We're going to eat some grease now.'  
    /xa·káwčú ké· in·á? ku·čá kwís·a·ke/ 'What are they saying?'  

(4) <xa·hú> 'still, yet'. An example of usage is /xa·kú té·ʔ/ 'It was still there.'  

(5) <máka·> 'no matter that...'. An example of usage is:
    /máka· ku·čá skwís·iʔ/ 'No matter what you say'  

    The most frequent occurrence of <máka·> is in a set phrase /máka· sté· mí·/ 'as it was' which is used as a conjunctive phrase in narrative.

    <máka·> also occurs in a line from a translation from English into Shasta by Clara Wicks of the Twenty-third Psalm: /yé· máka· yá·ʔa? kwat·ehé·ha·ma ?ahúturé·ʔe čá·purák ōkiwi·wiwá·ki/ 'Yea, although I crossed the valley in the darkness among the dead.'
(6) `<axmá·?i>` 'undisturbed'. An example is:

/`?axmá·?ihú ?in·á? kwára·ke?/ 'They were sitting there undisturbed.'

(In this example `<axmá·?i>` occurs with the enclitic `<hú>`. Cf. 452.).

(7) `<an·éx>` 'nearly'. An example of usage is:

/`an·éx kúč·i·ma/ 'I nearly fell'.
440. **Demonstratives.** <we'>, <in'á>, and <mi'> are the members of a major syntactic class that functions as verb satellites, with or without substantive or thematic suffixes, and can occur as nouns, locatives, or a connective in satellite expansions.

No matter how it is used, a demonstrative primarily signifies, from the speaker's point of view, location in time or space. <we'> specifies relative immediacy, <mi'> specifies relative remoteness, and <in'á> specifies, as it were, the absence of immediacy or remoteness. These forms can also be used to express aspectual concepts; <we'> marks inceptive/momentaneous, <mi'> marks durative/stative and <in'á> seems to designate imperfective (i.e. 'in the process of...').

440.1. **Substantive/Adverb function.** Demonstratives can be bases for substantive suffixation or they can occur unsuffixed in a substantive or adverbial function, with the restriction that a demonstrative never occurs at the head of a substantive phrase.

There are only semantic restrictions on occurrence of the demonstratives with the substantive
suffixes; e.g. demonstratives don't occur with 
<-éH> 'vocative' or <hí> 'referential'; however, 
a noun theme that has a demonstrative base can 
occur with the vocative; e.g. /?in·áyá·warí/ 'Oh, 
you fellows there!'

440.2. **The connective function.** The precise 
nature of the connective function of demonstratives 
is not fully understood; consequently, the analysis 
that follows must be considered tentative.

440.2.1. **Connection of clauses.** A demonstrative 
can connect two unexpanded clauses (i.e. verbs),*
the resulting construction being a compound clause;
e.g.

/kwát·i·ma mi·kwé·ra·kik/ 'He's-going-hither-
on-foot that-one
he's-turning-back
(i.e. 'He's going
back and forth')

It is also possible to express the above idea
as follows:

* There are no examples in the corpus of a demon-
strative acting as a connective between two
expanded clauses.
/kwát·i·ma mí· kás kwé·ra·kik/ or ʔkwát·i·ma kás mí· kwé·ra·kik/.

As the clause marker <kas> is always in constituency with a following clause, the last two examples are evidence that it is possible for <mi·> to be a constituent of both clauses. It is assumed for the original example that <mi·> is functioning as a connective and that the constituency relationship is a ternary one.

440.2.2. Role of demonstratives in satellite expansions. Demonstratives occur as connectives in various types of substantive phrases. Because of the freedom of Shasta word order and because the demonstratives have multiple class membership, syntactic ambiguity is possible, i.e. there are optional parsings for expressions containing connectives.

The following are examples of a demonstrative occurring in coordinate substantive expression:

(1) /ʔá·watikhwá·par ?in·á? tarí·čiʔ/ 'man-com.

that-one woman (i.e. a
man and a woman)

(2) /ʔáni·ní mí· ?áta·tápaw mí·ri·wáykána·keʔ/ 'Mother-ref. that-one
father-ref.-only that-one
they-know (i.e. Mother and
Father are the only ones
who know.)'

Both these examples are representative of
ambiguous structures. The structure of (1) is
either N D N (where N = /"á·watikhwá·par tarí·či?/) or N₁ N₂ (where N₂ = /"ín·á tarí·či?/). In the
first parsing <in·á> is a connective; in the second
it is adnominal.

(2) has the alternative structures N [N,A]V
and N N V. In the structure N[N,A]V, N = N D N (D
is connective) and the second <mi·> is either a
substantival or an adverbial satellite. In the
structure N N V, N = N N (i.e. <mi·>) is adnominal.

440.2.3. Occurrence with <ké·>. The demonstra-
tives occur with the conjunctive particle <ke·> in
a connective pattern that hasn't been completely
analyzed yet. The following examples demonstrate
the pattern:
/mí· ké· mí· \'kwá·?/ 'That was what it was!'
/márítus srik·í·?i? \'in·á? ké· mí· kwérisnikwá·ma
\ěrtúk/ 'a cold to be(pot.)-temporal loc. this
one it-is-so-that that-one it-nose-snuffs-up-

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cont. nose-loc. (i.e. When I get a cold, this is what I snuff up my nose.)" 
/wé· ké· wé· túti/ 'This is what he'll do.'
450. **Enclitics.** Enclitics can occur with other syntactic classes. An enclitic is only followed by another enclitic, the clitic <na·> (cf. 460.) or juncture; thus a word in Shasta has the structure \textit{W}[E][C] (where \textit{W} = verb, substantive, demonstrative, particle, clause marker, or interjection).

Enclitics are constituents of endocentric constructions. As many as three enclitics can cooccur. A two or three member sequence is called a cluster.

An enclitic that never occurs in a cluster or whose occurrence is restricted to first position in a cluster is referred to as a postposition. An enclitic whose positional occurrence in clusters is unrestricted, except when the first position is filled by a postposition, is called a postfix.

451. **Postpositions.** Postpositions occur with verbs, substantives, adverbs, or demonstratives. Twelve forms have been identified as members of this class; however, since verb thematic suffixes and substantive thematic suffixes are found functioning as postpositions, it is assumed that
the class is potentially an open one. For example, the substantive thematic \(<\text{xí·yáx}>\) 'diminutive' (cf. 422.1.4.4.) occurs with a verb in the volitional mode in \(/\text{rí·yaxá túp·irá·raxí·yáx}/ 'I'd better have a little nap'. Some directional/locational verb thematic suffixes (cf. 412.2.2.4.) occur as enclitic particles with substantive themes; e.g. \(<\text{tac·á}>\) 'allative' as in \(/\text{má·itac·á}/ 'towards you(sg.)', \(<\text{ka·hú}>\) 'upstream from the mouth of a stream' as in \(/\text{am·íka·hú mí·kwá·r}/ 'It's up the creek here.', \(<\text{apá·k}>\) 'in liquid' as in \(/\text{tápaká·k}/ 'dirty water'. Also found occurring with substantive themes are attributive verb thematic suffixes (cf. 412.2.1.1.); e.g. \(<\text{ca·m·í}>\) 'intensifier' as in \(/\text{tátaxára·ca·m·í·in·á·r·á}/ 'It's too salty.'.

The twelve forms identified as enclitic particles are listed below. Accompanying the items on the list are symbols indicating the syntactic classes the forms occur with (V=verb, S=substantive, A=adverb, D=demonstrative). Examples of usage follow the list.
1.  <wa'yax> 'alone'  (S)  6.  <-éHparuru> 'at once'
    (V)
2.  <ri'way> 'both'  (S)  7.  <tuwax> '?'  (V)
3.  <ki'wír> 'two together'  (S)  8.  <épe'haw> ~ <hyaw>       'That's the reason'
    (S,D)
4.  <rí'?ay> 'good'  (S)  9.  <-étkay> 'severally'  
    (V,S)
5.  <hampe'ki> 'it is possible that..'  10.  <kamax> '?'  (S,A)
       11.  <čax> '?'  (D)
       (S,A)  12.  <knawa?í> 'always'  (D)
1.  /ma'káw'yaxhúya wé' stá?/  'You(pl.) are all alone, are you?'
2.  /é'wará rxaxérri'way/  'they were both boys'
3.  /kári'wāki'wír/  'two brothers'
4.  /ká'mukayrí?ay/  'a good counter'
5.  /yáwe'ke? ku'čá? ikaráyhampe'ke/ (S) 'They gave them something—maybe a knife.'
/xamíhamp'ki òam'i rá'/? (A) 'He might/could be here.'

6. /tí·tí·má·paruru/ 'He ran away at once.'

7. /yíhi·ruxnarín·a·tuwax stúwasá·s/ 'He growled back at him to order him away.'

8. /ku·če'ehawna· mí'·s/ (S) 'Why is it that...?'
   /kihi·tayikhyaw mí· ké· túta·yik/ (S) 'Because of the speaking of the name, he did this.'
   /mí·hyaw?/ (D) 'That's the reason.'

9. /kás kwé·i·matkay ¿wi'wawáw/ (V) 'Everything is all gone.'
   /kás ¿vé·ha·wá·? kás ¿im·átkay ¿we·hú·ya·ka?/ (S) 'All that are living - each one has fire.'

10. /zátu· má· kúra·xákamáx stíwa·?i/ (S) 'There's no place to build a fire.'
    /má·kamáx kurá· tutik/ (A) 'He didn't in the least do anything.'

11. /nipxúye·kí·a· mí·cháx ničkwá·ki/ 'You(coll.) go and smoke it out; then you(coll.) can eat it.'
12. /mí·knawa·ʔihú tútik ʔihíni·hú/ 'That's what was always done all the time'

In the examples above, postpositions occur with postfixes in 1 and 12. The first item in 8 contains an example of a postposition occurring with the clitic <na·> (cf. 460.).

452. **Postfixes.** There are fifteen members of this class. Postfix occurs with other classes, alone or in clusters. The table below shows the distribution of single postfixes. Discussion, accompanied by examples, follows the table. Following the discussion is a list of enclitic clusters which covers all the cooccurrence possibilities found.

452.1. **Single postfixes.** In the table that follows a blank space in a row indicates that no example of cooccurrence was found in the data. Whether or not a blank is fortuitous is unknown. The class symbols used in the table and discussion are: V, S, A, D; and P= conjunctive particle, CM= clause marker, I= interjection.
<table>
<thead>
<tr>
<th>No.</th>
<th>Postfix</th>
<th>V</th>
<th>S</th>
<th>A</th>
<th>D</th>
<th>P</th>
<th>CM</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt;-ep'ahu&gt;</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<td>&lt;-eskwa-&gt;</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>3</td>
<td>&lt;-em'u&gt;</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>&lt;-ékHa&gt;</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
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<td></td>
<td>+</td>
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<td>7</td>
<td>&lt;&gt;u&lt; ~&lt;&gt;u&lt;</td>
<td>+</td>
<td>+</td>
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<td>8</td>
<td>&lt;&gt;ú&lt;</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<td>+</td>
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<td></td>
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<tr>
<td>9</td>
<td>&lt;kwa•?ís&gt;</td>
<td>+</td>
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<tr>
<td>10</td>
<td>&lt;&gt;ka&lt;</td>
<td>+</td>
<td>+</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>&lt;&gt;ri&lt;</td>
<td>+</td>
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</tr>
<tr>
<td>12</td>
<td>&lt;&gt;ya&lt;</td>
<td>+</td>
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<tr>
<td>13</td>
<td>&lt;&gt;yamí&lt;</td>
<td>+</td>
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</tr>
<tr>
<td>14</td>
<td>&lt;&gt;yahú&lt;</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>&lt;&gt;tamí&lt;</td>
<td>+</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

The discussion below is organized according to the ordering of the postfixes in the table above.

1. <-ep'ahu>. This lexeme has the variant shapes <-epaw> and <-epaw>. Its English equivalents are usually "nothing but" or "only".
/tá·ye·kep·aw/(V) 'It is said they did nothing but cry.'

/ˈá·pupú·parip·aw wé· yára·ke?/(S) 'Only older brother and I remain here.'

/ˈáta·hisé·kipaw yéʔ·ihi·yi·ma/(S) 'It was nothing but deserted when we got there.'

/mí·pahu kéʔ· kás mí· yapúʔ· kat·é·keʔ/(D)

'That's the only time I was [ever] around there.'

2 <-éskwa>). This postfix is a marker of emphasis.

/tičúškwá· kit·ár?/(V) 'I'm going to eat summer salmon.'

/ˈac·áwskwa· ʔátuʔ· ʔátuʔ· ʔac·áw/(S) 'pine nuts, no more, no more pine nuts'

/kasíškwá· kičkwá·kiʔ?/(CM) 'You(pl.) eat now!'

/ča·káʔ· ʔín·áʔ· sí·wan·áʔ· i mí·skwa· kéʔ· ʔumé· tik·iʔ?/(D)

'If we should sleep (together), there will be children.'

/mahíškwá· ʔín·áʔ· túc·awa·sír/(A) 'Wait until the storm is over.'

3 <-em·u>. This lexeme has a variant shape
<him·u> as in /če·hisim·u/ ~ /če·hishim·u/ 'only twenty'. Its semantic content, which seems to contain the component 'locative', is uncertain.

/*am·áxam·u*/(S) 'not far away'

/stáhu·úm·u mí·kwá·?/(V) 'He was just about to say something.'

/*is·í·m·u*/(S) 'in the middle'

/mí·m·u/ 'at that time'

/či·mim·uhú ù·ú·ik'·am·uhú ~wikhyewik ~wikhyewá· ku·čá?/ 'Again, the same one heard(moment.perf.) kept-on-hearing(dur. perf.) something.'

(There are two occurrences of <-em·u> in this example; it occurs with the adverb <či·mi> and also in /*u·ú·ik'·am·uhú/ which is an example of a substantive occurring with a three member post-fix cluster). See also:

/kwíc·ikim·u*/(V) 'He drinks all the time.'

4 <-skHa> 'demonstrative'. The demonstrative is often used to single out the subject satellite in a clause; however, since it is also used for purely emphatic effect, it occurs with other clause constituents as well. (See 10 for a discussion of possibility of confusion with <'ka>.)
/ni?·as·e·kip·a?/(V) 'You(sg.) take it away from them!'

(This example shows the use of <-éHa> with a verb in the mandatory imperative mode; such use is very frequent, especially in the speech of CW).

/ikwá·takák·a?/(S) 'Coyote's the one'

/áyaxí·tuhúk·a?/ narí·thi·yak/(S) 'Day after tomorrow you(sg.) come here after him.'

/ši·mík·a?/ stuhuíyak/(A) 'Come again!'

/kasik·a? in·á? kirik kútip·aw 'ís ké·ihí·yak/

(C) 'Afterwhile the only kind of people who come back (will be) the dead.'

5 <ši·> ~<ší·>. The meaning of this lexeme is uncertain.

/té·rukarik 'im·áši·/(S) 'Where's the fire?'

/mí·ši· má·ya twé·wá?/(D) 'There, don't you see it?'

/úukhí·cu ke·ši· té·ak/(P) 'Some are going to come here from there.'

See also:

/kurá·ši· ké· wé· túta·yik yapú? kís·awehempik/

'What did you do to my sitting place?'
/ku·čáči· tāpsík/ 'Whatever are you looking for?'
6 <či·>. 'too, also'.
/xátukwi·wači· ?uk·warí?/(N) 'Lots of Wintu, too.'
/te·pxú? sá· wé· xamíči· wé· xúk·a? sé·pxu?/(A)
   'I'm going to stay overnight —
   maybe I'll stay two nights.'
7 <ču> ~ <ču>. The meaning of this lexeme is
   uncertain.
/ráť·ayra·kakčú/(V) 'They are running this way
   after it.'
/?áp·akčú ?ám·a·túk rá·?/(S) 'Mother's brother is
   in the house.'
/má·ču mí· ?amí/(A) 'not here'
/wé·ču ké· ma·ká? stis·ánti·ka? ré·akák·a?/(D)
   'You(pl.) were asked to
   come.'
/kás ké·čú twé·rukwarik/(P) 'Then he asked...'
8 <hú>. 'emphatic'.
/rúhu·yan·ákikhú/(V) 'Let him come back again!'
/?apká·tanú ?in·á? sí·čuka?/(S) 'I'm carrying it
   in my hands.'
/mí·hú ké· té·cni·k/(D) 'He kept on singing.'
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<ma·'ka>. In this case, it is assumed that <'ka>
is the form that occurs since a form like
/mahúka/ ~ /mahúka/ 'not yet' does not show
the expected shape for <-ékHa>. <-ékHa> occurs
frequently; the occurrence of <'ka> is rare. In
an utterance such as /mí·kačú ké·<sas·u·hú
stárahú·yákní?/(D) 'May you grow as tall as a
yellow pine!', whether /mí·'ka/ contains <-ékHa>
or <'ka> is not known. See also
/makáyka să· tat·á?/(A) 'I'll go after while.'
/kás <átuka <wí·k kwač·ú stíwe·há·?/(CS) 'There
was nothing for him to eat.'

11 <ri·> 'contrastive emphatic'.
/kás ké·čú kú·pičiyaxikri·/(V) 'He listened
carefully.'
/wé·ri· ké· stuta·yik kičkúk/(D) 'This is the
way food should be fixed.'
/kwač·ú tarí·čiri·/(S) 'Let it be his wife.'

13 <yamí·> 'sequentitive'. Examples of usage
are:
/kás <ayá·kiyamí· kwač·ú· tiwíčax·i·ma/(S)
'Then he started in betting
his daughter.'
/kás ?in·á? má·iyamí· sté·ka·?í·k/(S) 'It's your turn to give a speech.'

14 <yahú> 'deictic'. Examples of usage are
/?akíyaxák·a? tí·c·aw ?im·áyahú kwá·takák·a? sriswir ?im·á?/(S) 'Surely that very fire will go out if Coyote takes the fire.'

/?in·awkhúyahú tíčurúxiwa·kik yap·ú? a·huhí/(S) 'In that very spot he threw my brothers into the water.'

15 <tam·i> 'even'. An example of usage is
/?kwí·aswe·ke? sá·tawactam·i ?ú·pičukini? ?ú·wa·xa·/(S) 'They took away even the horses, mules, and rabbits.'

452.2. Postfix clusters. In the preceding section examples were given of single postfixes occurring with syntactic classes. Clusters of two or three postfixes also occur. It is not profitable to make statements about ordering possibilities as too little is known about the factors that condition occurrence; therefore, what follows is a list of the clusters found in the data. (The
forms are in morphophonological notation).

-ep·ahu
-ep·ahu ču
-ep·ahu hu
-ékHa -ep·ahu
-éskwa·
-ču-éskwa·
-či·-éskwa·
-em·u hu -éskwa·
-ékHa éskwa·
-em·u
-em·u ču
-em·u ka hu
-em·u hu -éskwa·
-ékHa -em·u hu
-hu -em·u
-em·u hu
-ci· kwa·pis
-ci· ču ču kwa·pis
-ékHa či·
-ékHa ri· či·
-ékHa ri· či· ka
-ci· ka hu
-ci· ya -em·u ka hu
-ci· éskwa· ka ču
ču

ču hú
či· ču
ču -éskwa·
-ep·ahu ču
-em·u ču
-škHa ču
'ka ču
ri· ču
-škHa ču kwa·?is
-škHa hú ču

hú

hú ya
hú 'ka
hú -em·u
hú yahu
hú ri·
-ep·ahu hú
ču hú
-škHa hú ču
-em·u 'ka hú
-em·u hú -éskwa·
-škHa hú ri·
'ka hú
-škHa ya hú

ri·

ri· -ékHa
ri· ču
-škHa hú ri·
hú ri·
-šk'ka ri· či·
yá
-škHa ya
-škHa ya hú
ya hú
či· ya
hú ya

yamí·
-škHa yamí·
yamí· -éškHa
yahú
-škHa yamí·
yamí· -éškHa
yahú
hú yahu
tamí
-škHa tamí·
460. **Clitic.** `<na·>`, 'addressative', occurs both as an enclitic and as an interjection that occurs in the first tactic position in an utterance. As an enclitic, it follows all other enclitics, most often occurs with question words or forms in the vocative, and enters into the construction it occurs with. As an interjection, it is always followed by `<!>`, expressive juncture.

`<na·>` is used in conversation when the speaker wishes to address someone. Examples of its usage follow.

/ýáčin·a· wé·. tí·?i·na· sá· wé· či·mac/ 'We're braiding. Wonder when we'll finish?'

/taká·tuna· wé· ?í·nax/ 'Whose hair is this?'

/kurá·či·na· ?in·á? kwát·a?/ 'Where has he gone?'

/ʔac·ití·na·/ 'Grandmother, ....'

/taká·kari·na·/ 'whoever he is'

/na·: mí· ma·mú? ?iskí·k/ 'That's your life!
(implying life has been hard)'

/na·: wé· ?wipsí·k yúmaxá? ?wis·á·yik/ 'You'll get married, will you, old man!' he said to him.'
470. **Conjunctive Particle.** <ke•> 'so it is/was that...', is the only member of this class. It occurs alone or with an enclitic. It marks a clause as the final one in a sequence.

/kás ké•čú kwá•tak kú•pišiyax•ikri•/ 'Then Coyote listened carefully.'

/mípaw ké• kás mí• yap•ú? kat•é•ke•? 'That's the only time I was (ever) around there.'

/máritus srik•í•?i ?in•á• ké• mí• kwérisnikwá•ma ñértük/ 'When getting a cold, so this is that (which) I snuffed up my nose.'

/kurá•či• ké• wé• tútayiyik yap•ú? kís•awehémpik/ 'So what did you just do to my sitting place?'

/amíri• ké• káris•á• kičkúk/ 'That way it is good to eat.'

/ku•čá ké• ?in•á• tí•k/ 'What's he doing?'

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480. **Clause marker.** In narrative, <kas> marks a loose conjunctive relationship between a clause and the clause that precedes it. It is always in constituency with the clause that follows.

In conversation, <kas> can occur as an interruptive device or as a hesitation form. With a postfix, it can be used as an interjection, e.g. <kas éskwa•>: /kasiskwa•/ 'Goodbye!'.

Examples of its use as a clause marker follow.

/kásčú táká•'ka• tis•ík/ 'Then Quail said....'
/kás ké•čú kwá•tak kú•píčiyax•ikri•/ 'Then Coyote listened carefully.'
/kás wé• sá•ya•pú•ma yá•'ači•/ 'I'm getting old too.'
/kás mí•tičim•u ké•' růkatehempik/ 'At this point, it ends.'
/o•: kás wé• rán•iwa•ya•kikak/ 'Oh, here come the brides-to-be!'
/mí•paw ké•' kás mí• yap•ú• kat•é•ke•?/ 'That's the only time I was (ever) around there.'
/má· yá·?a primaryKey ċu·kír ʔin·á·tini·hú ʔac·áw
kas xáčki číchí·su kwík·í?/ 'I haven't seen any
acorns or pine nuts
for three years.'
490. **Interjections.** Interjections are lexemes that occur alone or with expressive juncture (<!>) and form complete utterances. They are as follows:

- `<hay>` 'What!' (an answer given when someone calls your attention)
- `<ha·?á·>` 'yes'
- `<e·x>` An expression of disgust. This interjection always occurs in construction with expressive juncture, i.e. `<e·x !>`: `/?é·x/.
- `<í·s·e>` 'Here!' as in `/í·s·e· wé· pía kí·í/?
- 'Here, drink this beer!'
- `<e·huhu>` An exclamation made when you are pleased that you have gotten the best of someone.

The adverb `<má·> 'not'`, together with `<!>`, forms a construction that is an interjection, e.g. `<má· !>`: `/má·/.