

**MONO GRAMMAR**

**Submitted in Partial Satisfaction  
of the Requirements for the  
Degree of Doctor of Philosophy**

**by**

**Sydney MacDonald Lamb**

**Completed December, 1957**

**University of California**

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## PREFACE

This description is based upon material contained in field notes and tape recordings which were obtained in the vicinity of North Fork (Madera County), California, during the summers of 1953 and 1954. Material on other Mono dialects and on Paviotso (Northern Paiute), which serves as the primary basis for the statements of article 3 of the introduction, was obtained in the field during the same summers. Some of the data was checked and amplified during another visit to North Fork during the latter part of January, 1955. These field trips were made possible by the Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley, whose generous assistance is hereby gratefully acknowledged.

The great preponderance of my corpus was provided by Mrs. Lucy Kinsman, an intelligent elderly lady who has witnessed the breakdown of her native culture with great sorrow. Her interest in this linguistic project, and her cooperativeness, patience, and enthusiasm, have rendered me exceedingly grateful for the part she has played in helping to make available a description of her language. I am grateful

also to the other North Fork informants who have supplemented the data provided by Mrs. Kinsman: Annie Wenz, Susan Johnson, Louie Carmen, Hausen Lavell, and Joe Kinsman (Lucy Kinsman's husband). Two former North Fork residents now living in the San Francisco Bay area, Mrs. Elizabeth Bethel and Mrs. Daisy Coleman, have given me some helpful additional data from time to time. Also deeply appreciated is the assistance of Mrs. Rosalie Bethel of North Fork, who served as an able interpreter during my work with Mrs. Kinsman, Mrs. Wenz, and Mrs. Johnson.

The members of the committee which has supervised this work, Madison Beeler, Murray B. Emeneau, and Mary R. Haas, have graciously offered valuable advice and encouragement. To them, and particularly to Professor Haas, the chairman of the committee, who has generously given of her time to discuss problems and to suggest improvements in style, organization, and other matters, I owe my hearty thanks.

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## INTRODUCTION

1. Northfork Mono is here described in terms of a framework of three structural levels containing discrete, precisely definable elements, plus two peripheral levels, which relate the linguistic structure to the extralinguistic phenomena of nature and society. The levels, listed in order, are: phonetic, phonemic, morphophonemic, morphemic, and semantic. The three middle levels (whose names end in -emic) are the structural levels. Any utterance or text has, of course, simultaneous existence on each of the five levels, but its nature on each of the levels (as ascribed by the grammarian during the analysis for the sake of a simple description) differs from that on each of the other levels. The various elements and combinations of elements which are set up on each of the structural levels, as a result of abstraction based on comparison and analysis of many utterances, are endowed with a separate existence by the analyst. Such an element or combination of elements on a given level may be spoken of as the representation on that level of that portion of an utterance or set of utterances which it accounts for. It will also be spoken of as representing on that level an element or combination of elements of another



level which accounts for the same portion of an utterance or set of utterances. For the sake of variety, the word 'realization' is sometimes used instead of 'representation', in the second sense.

a. The primary element on the phonemic level is the phoneme. A phoneme is one element of that set of elements which most economically accounts for all of the speech sounds falling within the scope delimited by the analyst (as in article 2 below). It is not a class of segmented portions of expression substance, but a single element of expression form, which accounts for certain features of the phonetic substance. The representations of a phoneme on the phonetic level may be called its allophones. Phonemes and combinations of phonemes are identified as having existence on the phonemic level by being enclosed in /.../.

b. On the morphemic level, the primary unit is the morpheme, a unit of content form, which is arrived at by the conventional methods familiar to linguistic scientists. The method of symbolizing morphemes is described below.

c. The morphophoneme is the primary unit of the morphophonemic level, and is identified as existing on that level by enclosure in //...//. The morphophonemes are set up to account for: (1) recurrent (i.e. for more than one morpheme) alternations among phonemes in alternate phonemic

representations of morphemes (except where part of the alternation coincides with an alternation of this type, and the remainder involves free variation with the alternants included in the former, as is the case with the noun roots mentioned below); (2) phonemes which undergo no alternation in phonemic representations of morphemes; (3) non-recurrent alternations involving more than one combination of morphemes which are not capable of being described in terms of alternate morphophonemic representations of morphemes, where the morphophonemes involved would be of types (1) and/or (2). Type (2) is necessary for the sake of fulfilling the requirement that all of the phonemic material be accounted for on the morphophonemic level. Other types of alternation among the phonemic representations of morphemes are described in terms of alternate morphophonemic representations of these morphemes. These alternate representations will be called allomorphs. Allomorphs thus have their existence on the morphophonemic level, not on the phonemic level as in most previous linguistic descriptions.

An example of type (3) is provided by the Northfork morphophoneme //N//, which occurs in an allomorph of a single morpheme, and therefore covers a non-recurrent alternation. This is the objective morpheme (337), which may be symbolized (according to the device described in d below) as <Na> n0 'obj.'. There are several morphemes which have (as their

morphophonemic representations) freely varying allomorphs differing by the presence or absence at their end, of the morphophoneme //ʔ// (227), for example //ciwjahnu//~//ciwjahnuʔ//, a masculine name. The morpheme <Na> n0 'obj.', when occurring after morphemes whose morphophonemic representations, or morphs, end in //V// (204), is realized phonemically as /na/. It is realized as /aa/ after morphemes whose morphs end in //ʔ// (without the free variation). Thus we have /pihkuiʔaa/ (227g) representing the combination of <Na> with <pihkuiʔ> //pihkuiʔ//, another masculine name. For the combination of <Na> with //ciwjahnu//~//ciwjahnuʔ// we find /ciwjahnuna/~ciwjahnuʔaa/ in free variation. The selection of /na/ or /aa/ as the representation of <Na> depends upon its morphophonemic environment, not upon its morphemic environment. To avoid mixing of levels, with the concomitant danger of circularity, it is necessary that the representations of an element of a given level be defined in terms of its environments on that same level. Thus it is necessary that <Na> have a single morphophonemic representation in the morphophonemic environments //ʔ-// and //V-//. To say that <Na> has the freely varying allomorphs //aa//~//na// when occurring after <ciwjahnu(ʔ)> would be to imply the possible occurrence of \*//ciwjahnuaa// and \*//ciwjahnuʔna//, neither of which occurs. <Na> is given a single morphophonemic representation //na// by the setting up of the morphophoneme //N//, even though the alternation covered by it

does not occur in the representations of any other morphemes. (The morphophoneme //n// cannot be used since it is set up to account for occurrences of /n/ which do not participate in this alternation.)

On the other hand, no economy is gained by this device if only one combination of morphemes is involved, since freely varying portmanteau morphs can be set up for this single combination. This type of situation is illustrated by the combination <?yh ni>, with its freely varying portmanteau representations //?yhnih//~//?yih// in some environments (322b).

d. Each of the structural elements has as its properties a specific definable relationship to the adjoining levels and a distribution in relation to other elements of the same level. The phonemes and morphophonemes of Northfork are small enough in number to be kept track of easily, and they can be most conveniently symbolized by single letters of the alphabet and similar symbols. The morphemes, however, are so numerous that it is generally advisable to cite them by indication of each of their three properties. This is done as follows:

(1) An indication of the morphophonemic representation is given first, enclosed in <...>. This is considered the fundamental, or simple, symbolization of the morpheme. If the morpheme has more than one morphophonemic

representation, one of them (or some other convenient symbolization, such as <oiwɨjahnu(')>) is given.

(2) This is followed by the symbol indicating distribution class membership (303), without any enclosure.

(3) Following this, wherever feasible, is an indication of the basic semantic representation or meaning, enclosed in '...'.  
 -

A few morphemes of a special type have zero content and unique distribution. These are called the tactic junctures (397). They are symbolized merely by their morphophonemic representations, enclosed in <...>.

e. The relationships of the various structural elements are indicated in the table below.

<u>Level</u>	<u>Primary Element</u>	<u>Secondary Element</u>
Semantic		(Allo)seme
-----	-----	-----
Morphemic	Morpheme	
Morphophonemic	Morphophoneme	(Allo)morph
Phonemic	Phoneme	(Allo)morphophone
-----	-----	-----
Phonetic		(Allo)phone

Since the phonemic realizations of morphophonemes are usually phonemes (i.e. morphophones and phonemes usually coincide), and since these realizations are for the most part described symbolically (204b), it has not been found

necessary to make use of the terms 'morphophone' and 'allomorphophone'.

2. Each idiolect has its own structure, which differs in some details even from very closely related ones. It has been decided to describe a single linguistic structure rather than to attempt a composite description covering several dialects or several varieties of one dialect. Accordingly, the description is based on the speech of Lucy Kinsman plus that part of the material obtained from other informants which is consistent with the patterns of Lucy Kinsman's speech. In two or three places, comments on patterns of other speakers which fall outside this scope are included.

Since there is little variation of importance in the Northfork area, the structure here described can be assumed to be adequately representative of the Northfork subdialect of Mono, even though it does not necessarily coincide in all details with that of other Northfork speakers. Thus the phenomena described will be referred to as phenomena of Northfork Mono (or of Northfork).

It has not been considered profitable to account for every vocal sound emitted by the informants on the levels of linguistic structure. Some of the speech sounds have been accounted for by 'anomalous phonemes', which are not

considered part of the standard phonemic system, and are not accounted for in the description of the higher levels. The reasons for the exclusion of these sounds from the standard phonemic system are given in 170. For similar reasons, other vocal sounds too trivial to mention have been excluded altogether from the description. The junctures and the supra-segmental phonemes have not been described in complete detail with regard to their phonetic realizations; and the supra-segmental phonemes and the infrequently occurring juncture /,/ have not been accounted for on the morphophonemic, morphemic, and semantic levels. Not all of the Northfork morphemes are represented in the corpus which served as the basis for this description, and the morphemes have not been thoroughly described with regard to their semantic representations. Aside from these limitations, all of the material on each of the three structural levels and two peripheral levels has been accounted for on the adjoining levels.

3. The Mono or Monachi language was formerly spoken, in several dialects, in that part of the foothill area of the western slope of the Sierra Nevada which is drained by the San Joaquin, Kings, and Kaweah rivers, and in the area directly to the East of the southern Sierra Nevada. There still survive perhaps a few score speakers scattered throughout this territory, representing to some degree most of the

former dialects. On the basis of similarities and differences in their reflection of the Proto-Mono phonemic system, the various speech-forms can be classified into three super-dialects, comprising seven dialects, five of which can be further divided into subdialects. The Northwestern Mono superdialect contains the San Joaquin and Kings dialects, each of which has two subdialects separated by the rivers. Northeastern Mono is spoken in three dialects, two of them in the northern part of the area drained by the Owens River, the third across the White Mountains to the east, in Deep Springs and Fish Lake Valleys. Southern Mono spans the Sierra Nevada, with one dialect extending from Big Pine southward to Owens Lake, the other in the area drained by the Kaweah River. It is safe to say that mutual intelligibility prevailed between any two points in the area, although a good deal of difficulty in understanding could be encountered between speakers from widely separated points. Speakers of the South Owens Valley dialect, for example, miss a great deal in attempting to understand recorded texts from the San Joaquin dialect. In the give-and-take of face-to-face conversation, however, it is very likely that a high degree of mutual understanding would be achieved rapidly.

Although resemblances between the dialects are, of course, greatest between those belonging to the same super-dialect, there is also great similarity (1) between the



San Joaquin dialect and that of Long Valley and Benton in the northernmost part of the Owens River drainage, and (2) between the Deep Springs dialect (Deep Springs and Fish Lake Valley) and that of the southern Owens Valley. The Deep Springs dialect preserves most faithfully the phonemes of Proto-Mono.

The San Joaquin dialect consists of the Auberry sub-dialect, on the south side of the river, and the Northfork subdialect, on the north side. The Northfork area is thus at the northwestern corner of the Mono territory. It borders on the territory of the Chukchansi Yokuts, to the west, and that of the Southern Sierra Miwok, to the north.

The closest linguistic relative of Mono is the Paviotso or Northern Paiute language, whose area extends northward from the watershed divide between the headwaters of the Owens River and Mono Lake basin. The speech of the Bannock Indians of Fort Hall Reservation in Idaho, whose territory was surrounded by that of the Shoshonis, represents a dialect of Paviotso which differs only very slightly from the Paviotso of Oregon and northern Nevada. Paviotso resembles Mono strongly in lexicon, very strongly in phonology, but it differs rather surprisingly from Mono in many features of grammatical structure. Mono and Paviotso comprise one of the three subdivisions of the Numic or Plateau Shoshonean family, which in turn belongs to the Utoaztekan stock.

4. No grammatical description of Mono has ever appeared in print, but a few lists of vocabulary items, recorded with varying degrees of proficiency, have from time to time been published. The earliest of these, recorded by Oscar Loew in 1875, was published by Gatschet (1879), as number 12 ("Pa-Uta of California"). Other vocabulary lists have been published by Kroeber (1907), Steward (1933, 1938), and Driver (1937). Additional lexical items are to be found in publications of Gayton (1930, 1948), Gifford (1922, 1923, 1932), and Steward (1934, 1936).

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BAE-B 120.

## CHAPTER ONE

### PHONOLOGY

101. The phonemic system of Northfork Mono is simple in terms of its inventory of consonants and vowels, and in the combinations of consonants and vowels which occur, but it possesses fairly complicated patterns of junctural and intonational phenomena. Noteworthy features of the system are: (1) voicing is entirely non-distinctive throughout the roster of phonemes, and all of the phonemes except /s x ʔ/ have voiced and voiceless allophones; (2) the "word-juncture" /+ / is in general quite clearly marked by stress and by articulatory allophones of the consonants and vowels; (3) there is a systematic stress pattern and a very elaborate intonational apparatus, although no stress phonemes nor phonemic pitch levels are necessary to describe the prosody; and (4) some of the consonants have a wide variety of phonetic representations. A pervading feature of the system, which might be considered a constant for the language rather than assigned to the list of properties of any phoneme or class of phonemes, is the weak articulation of consonants in intervocalic position as opposed to strong articulation initially and in clusters.

102. Most of the speech sounds occurring in the Northfork corpus are accounted for by what will be referred to as the standard phonemes. Certain other sounds, for reasons given in section 170, are considered to be external to the standard phonemic system. They are accounted for by what will be called the anomalous phonemes. These are treated briefly in 170 and are ignored throughout the rest of the grammar.

The standard phonemes are given in the tables below.

Direct Phonemes:

	Front-Groove	Plain Front	Plain Back	Back-Labial	Plain Labial	Glottal
Stops	c	t	k q	kw qw	p	ʔ
Spirants	s		x			h
Nasals		n			m	
Semivowels		j		w		
High Vowels		i	y	u		
Low Vowels		e	a	o		

Indirect Phonemes:

Junctures	+	.	,	'		
Suprasegmental Phonemes						( )

The symbol # is used to represent pause, or the absence of any linguistic phenomena. It is not considered a phoneme, but it occasionally functions as a significant

factor in an environment. It occurs only after junctures and before the beginning of utterances.

103. The standard phonemes may be divided into two main groups: direct phonemes, those which represent phonetic events describable in terms of definite (but variable) manner and position of sound-production; and indirect phonemes, those which represent phonetic events describable in terms of their effect on the production of the direct phonemes. These classes are defined for Northfork by the listing of their members in 102. The classes of standard direct phonemes designated by the terms stop, spirant, nasal, semi-vowel, high vowel, low vowel, front-groove, plain front, plain back, back-labial, plain labial, and glottal are defined by the table of 102. More inclusive classes are as follows:

Obstruents: spirants plus stops, except glottals

Resonants: semivowels plus nasals

Consonants: obstruents plus resonants plus glottals

Vowels: high vowels plus low vowels

Front: front-groove plus plain front

Back: plain back plus back-labial

Labial: back-labial plus plain labial

Oral: front plus back plus labial (i.e. all except glottal)

The following cover-symbols will be used to designate any members of the following classes of direct phonemes:

V - vowel	T - oral stop	H - glottal
C - consonant	N - nasal	‡ - juncture or #
X - obstruent	J - semivowel	‡ - † and .

104. While all of the phonemes have a certain amount of scope (i.e. overlapping with adjacent phonemes with regard to their phonetic representations), it is decidedly limited in the case of the direct phonemes, so that these may be regarded as segmental phonemes, and thus represented in the phonemic writing system as segments. Although the scope of the juncture phonemes is somewhat wider, they too can economically be represented orthographically as segments. An utterance or any continuous portion of an utterance, viewed from the standpoint of the phonemic level and represented by a sequence of phonemic symbols, together with any accompanying phonemic symbols not written segmentally (i.e. supra-segmental phonemes) will be called a sequence of phonemes.

105. The sequences of direct phonemes of any Northfork utterance may be divided into syllables each of which is one of a limited number of types. A syllable which is not followed by /‡/ is one of the following types: CV, CVH, CVV, CVVH (and rarely CVVn). A syllable which is followed by

/ʔ/ is one of the following types: CV, CVH (uncommon), CVV, CVHC (uncommon), CVVHC (uncommon). All syllables begin in a single consonant (and /ʔ/ is always followed by a single C or by #). Consonant clusters (except the rare /nt/) always have /h/ as the first member, never have more than two members, and are either ambisyllabic or at the end of a syllable which precedes /ʔ/.

106. A phonemic word may be defined as a sequence of phonemes occurring between two junctures, or between # and a juncture. The types of sequences which occur as phonemic words are strictly limited in their composition. Except in definable environments involving following phonemes, all words end in /V/ (i.e. /ʔ/ is usually preceded by /V/). Words ending in /C/ have alternate forms, occurring outside these environments, which end in /V/. A word may contain any number of syllables from one up to about a dozen. One-syllable words consist only of the syllable type CVV (aside from the types CVHC, CVVHC, which have two-syllable alternants).

A phoneme (always a consonant) which occurs immediately after /ʔ/ will be said to be occurring initially. A phoneme occurring before /ʔ/ will be said to be occurring finally. A phoneme (always a consonant) occurring immediately between two vowels will be said to be occurring intervocally.



Any consonant may occur initially; any vowel may occur finally. Every consonant except /n s x/ occurs intervocally. The consonant clusters which occur are: /hc ht hk hq hkw hqw hp hs hx hn hm hj hw ʔn ʔm ʔj ʔw/ and rarely /nt/ (e.g. /teenteenuʔu/ 'store'). The vowel clusters which occur are: /ii yy uu ee aa oo yi ui ei ai oi/, and, in a single word (/ʔeaʔa/, an interjection), /ea/. That is, any vowel may be followed by itself or by /i/.

Examples of word types of one and two syllables are:

/nyy/ 'I'            /nana/ 'man'            /naana/ 'men'  
 /tyhpi/ 'stone'    /paahpi/ 'blood'       /ʔiwoo/ 'my head'  
 /maiwai/ 'will be'    /ʔahkwoo/ 'his head'  
 /ʔahkwoo/ 'their heads'

107. Stress is an automatic feature of Northfork; its positions of occurrence are determined by configurations of consonants, vowels, and junctures.

a. Except under the conditions stated in 107b,c, the position of stress is determined as follows: for words ending in /V/, the syllable which contains the next-to-last /V/ in the word is stressed; for words ending in /C/, the last syllable is stressed. The occurrence of stress on syllables preceding the last stressed syllable of a word is determined in a similar manner: the syllable containing the second /V/ before the last stressed syllable of the word is stressed (if there is one); the syllable containing the second /V/

before such a stressed syllable is stressed; etc. Thus the incidence of stress on a given word may be predicted by counting backwards from the end of the word.

b. If the first syllable of a word does not meet the above conditions for being stressed, nor those of 107c, it nevertheless has a weak degree of stress.

c. Under certain conditions, stress may occur on the third syllable preceding a stressed syllable, with the intervening two syllables unstressed. (Except under these conditions, stress is on either the first or the second syllable preceding a stressed syllable.) There are no occurrences, however, of stress on the third syllable from the end of a word, with the intervening syllables unstressed. The conditions are as follows: (1) each of the three syllables preceding the stressed syllable must contain a single /V/ (not /VV/); (2) the vowel of the second preceding syllable must be identical to the vowel of at least one of the adjoining syllables; (3) the /C/ preceding the second preceding /V/ must be immediately preceded by /V/ (not by /C/; (4) the /C/ preceding the third preceding /V/ must be preceded by /C/ or by /ʔ/ (but not by /V/). (In the following examples, phonemic writing is used, except that stress, which is not phonemic, is indicated.)

/,ʔacah,<sub>m</sub>ynunu'hihti./ keeps turning it over.

/,suwah,kwinunu'hihti./ is dizzy.  
 /,qohmoh,tana'i'qoihti./ (pl.) remained standing.  
 /,nahtah,kwinihta'tyhy./ (several snakes) coiled up.  
 cf. /,nahtah,kwinih'tahti./ (several snakes) are  
 coiled up.

not \*/nah,tahkwinih'tahti./ (condition 3)

~/,qwacaca'hihti./ fell (long distance).

cf. /,qwaca,cahi'tyhy./ falling (long distance).

not \*/qwa,cacahi'tyhy./ (condition 4)

/°ah,qwacaca'hihna./ its act of falling.

cf. /pu,hitu'wahpy./ has become green.

not \*/,puhиту'wahpy./ (condition 2)

d. There are four degrees of stress. Strong stress occurs on the last stressed syllable before /./, unless the suprasegmental phoneme /°/ (161) occurs on a preceding syllable; and with /°/. Intermediate stress occurs on any other syllable which is determined as stressed by the conditions of 107a,c. Weak stress (unmarked in the examples above) occurs on initial syllables which do not meet the conditions of 107a,c for being stressed (107b). Any other syllable is unstressed.

e. A stress unit may be defined as a sequence of phonemes consisting of one to three syllables within the same (phonemic) word such that (1) the first of these syllables and

only the first one is stressed; and (2) there is either a following juncture or a following stressed syllable. From this definition, the definition of syllable (105), and the conditions for the occurrence of stress, it follows that every direct phoneme belongs to one and only one stress unit, and that any utterance (except one which is interrupted in the middle of a syllable) consists of a series of stress units (plus intervening and/or accompanying indirect phonemes). A syllable which has weak stress (107b) is always followed immediately by one with intermediate or strong stress (since if the following syllable were unstressed, the initial one would have intermediate or strong stress). Such a syllable constitutes a special type of stress unit, which may be called a weak stress unit. Weak stress units contain only one /V/. All other stress units may be called full stress units. They contain at least two vowels (unless they end in /C/ which is followed by /ʃ/) and never more than three; they may consist of one or two syllables, or, where the conditions of 107c apply, of three. The possible types (all of which occur) are: CVV(H), CVCV(H), CVHCV(H), CVVCV(H), CVVHCV(H), CVCVCV(H), CVCVHCV(H), CVHC, CVVHC (the last two occur only before /ʃ/).

Except where certain junctural phenomena (e.g. 151a(2)) intervene, the duration of the different types of full stress units is approximately the same at equal rates of speed of

speaking. Thus a /VV/ sequence is longer in a CVV stress unit than in a CVVCV one (under equivalent conditions). Under equivalent conditions, each vowel in a CVVCV stress unit has about  $2/3$  the duration of a vowel occurring in a CVCV stress unit.

The tendency to maintain equal duration of successive stress units, with equal time intervals between the onset of successive stresses, gives everyday Mono speech a rhythmic quality of the type that ungifted English speakers can achieve only by reciting poetry.

108. In the description of the phonemes, reference is made to the occurrences of a phoneme in a particular environment or set of environments by means of the following notational device: the phoneme in question is written at the left of / ; at the right of / is given the environment, with the position of the phoneme in the environment indicated by - . For example,  $x/y-z$  is to be read, "the class consisting of those occurrences of /x/ which are preceded by /y/ and followed by /z/", or, "/x/ when preceded by /y/ and followed by /z/". Parentheses enclosing a symbol denote that the phoneme represented by that symbol may be either present or absent in the position indicated. For example,  $w/x-(y)z$  includes both  $w/x-z$  and  $w/x-yz$  .

110 Obstruents

110. The obstruents /c t k q kw qw p s x/ all occur after /ʔ/ and /h/, and are fortis and voiceless in these environments. The oral spirants /s x/ never occur in any other environment, and are, with the exception of /ʔ/, the only phonemes which do not occur both voiced and voiceless. (In some Mono dialects /s/ occurs after vowels, as a lenis spirant, usually voiced.) The oral stops /c t k q kw qw p/ occur also after vowels, where they are very lenis (often not completely stopped), and voiced except when followed by /V./, where they are facultatively voiceless, along with the following vowel.

/syjeepci./            coward.

/ʔiʔeqo./            my tongue.

The /hX/ clusters are similar in their articulation to X/ʔ-, differing from them only in length and, in the case of the stops, in that they are commonly preaspirated (see 131). (Note that /h/ is not always realized as a glottal spirant.) A /hX/ cluster is about twice as long as a single intervocalic consonant, at equivalent rates of speed, while X/ʔ- is about the same length as or slightly longer than a single intervocalic /c/.

The fortis-voiceless allophones of the oral stops, when followed by a voiced vowel, are usually weakly aspirated,

but there are occasional occurrences of fairly strong aspiration or, especially in the case of /t p/, lack of aspiration. The variation between aspiration and lack of it appears not to be conditioned either by stress or by the quality of the following vowel, but to be free, with a statistical predominance in favor of aspiration. The predominance is nearly absolute in the case of /c/, very marked for /k q kw qw/, and slight for /t p/, whose unaspirated occurrences are almost as frequent as aspirated ones. Aspiration of /k q kw qw/ often takes the form of a weak velar spirant.

/cihpa <sup>?</sup> a./	bird.
/tyhpi./	rook.
/kuna./	wood.
/qatu <sup>?</sup> u./	no.
/ <sup>?</sup> ahkwoo./	his head.
/qwena <sup>?</sup> a./	far away.
/paahpi./	blood.

111. /c/. Like the other oral stops, /c/ occurs after /<sup>?</sup>/; /h/, and /V/. It is always followed by /V/. It is generally represented phonetically by an apico-dental stop with apico-alveolar groove spirant release. The lenis allophones ( c/V-V ), however, sometimes occur without the stop component.

*c/h-* and *c/f-* are always fortis and voiceless, and are almost always weakly aspirated, occasionally rather strongly aspirated. /*c*/ is the only oral stop whose fortis allophones practically never occur unaspirated.

*c/V-V* is very lenis and is voiced whenever the following vowel is voiced, but is usually voiceless if the following vowel is voiceless (110). When voiceless, it still contrasts clearly with *hs/V-V*, even when its stop component fails to take place, as it is shorter and much more lenis.

*c/t-* is pronounced with the tip of the tongue touching the back of the teeth, as in the case of /*t n*/, regardless of the quality of the following vowel. After a back vowel /*y u a o*/, /*c*/ and /*hc*/ have this same position, unlike /*t ht n hn*/.

/oihpa'a./

bird.

/cawui./

good.

/'acaanihtu./

bad.

/'ihuhci'i./

my mother's mother, daughter's child.

When /*c*/ and /*hc*/ follow a front vowel, the tongue is somewhat farther forward (having the same position as /*t ht n hn*/ in the same environments), with the point of the tongue extending to between the teeth.

/'icihoukahnmu./ my index finger.



If the stop component does not occur for c/V-V , it is a blade-alveolar lenis spirant, slightly farther forward after front vowels than after back vowels (i.e. with the spirant component in the same position as it is when the stop component occurs). (Note that it contrasts in position with s/V-V in those dialects which have the latter, as the latter is always post-alveolar, like /hs/ in Northfork. In dialects which have s/V-V , however, there seems to be a greater tendency for the stop component to occur.)

112. /t/. /t/ occurs after /ʔ/, /h/, and /V/, and is usually followed by /V/, although it may be followed by /+ / or /./ under special circumstances (237). It is always articulated by the apex, and involves closure or near closure. The point of articulation and precise manner of articulation are functions of the environment.

t/h- and t/ʔ- are always fortis and voiceless stops and are usually weakly aspirated, occasionally strongly aspirated, often unaspirated. Unaspirated occurrences are almost as common as aspirated ones. When followed by /./ or /+ / instead of by /V/, /t/ is unreleased.

t/V-V is very lenis, usually not a stop, and is voiced whenever the following vowel is voiced, but is often voiceless if the following vowel is voiceless (110).

t/ʔ- is pronounced with the tip of the tongue touching the back of the upper teeth, like /o n/ in the same

environment.

/tʰi. /

tea.

/tyhpi. /

rook.

/toohpe. /

cloud.

Somewhat farther forward are /t/ and /ht/ after front vowels, regardless of the quality of the following vowel, with the tongue well against the back of the upper teeth, the point extending to between the teeth. Intervocalic /t/ in this position is usually represented by a lenis slit spirant, similar to /ð/ of English, but it often has momentary closure preceded and followed by friction.

/kiti<sup>h</sup>i. /

cat.

/<sup>h</sup>itawa. /

my teeth.

When following a back vowel and preceding a front vowel, /t/ and /ht/ are alveolar. t/V-V in this position is either a lenis slit spirant or a weak stop preceded and followed by friction; there is a somewhat greater tendency for closure to occur than in the farthest front position (i.e. after front vowel). There is often a suggestion of "r-like" quality.

/jawaahxati. /

a feminine name

(Lucy Kinsman)

/<sup>h</sup>ahteepe. /

his shoulder.

Between back vowels, /t/ and /ht/ are post-alveolar. In this position, t/V-V is usually a flap-r, often with a

slight spirantal quality. Occasionally two flaps occur in rapid succession, very occasionally more than two.

/tatape./                      the sun.

/pahtahqai./                  raccoon.

The four positions of /t ht n hn/, according to the environments in which they occur, are represented in the table below; the numbers 1 to 4 represent positions from front to back. (Position 4\* may be farther back than 4, as suggested by the clearly perceptible difference in position of /j/ in these environments, and the general parallelism of positional allophony of /t/ and /j/.)

		following vowel					
		i	e	y	a	u	o
p r e c e d i n g	ʔ	2	2	2	2	2	2
	i	1	1	1	1	1	1
	e	1	1	1	1	1	1
	y	3	3	4	4	4	4
	a	3	3	4	4*	4	4*
	u	3	3	4	4	4	4
	o	3	3	4	4*	4	4*

113. /k/. /k/ occurs after /ʔ/, /h/, and /V/, and is nearly always (237) followed by /V/ (any /V/ except /o/). It is a stop or lenis spirant, and is articulated by the

dorsum, with the point of articulation determined by the environment. It is in overlapping distribution with /q/; both phonemes occur before /e a/, only /k/ before /i y u/, only /q/ before /o/.

k/f- and k/h- are always fortis and voiceless stops, and are usually weakly aspirated, occasionally rather strongly aspirated, occasionally unaspirated.

k/v-v is very lenis, usually not stopped, and is voiced whenever the following vowel is voiced, but is usually voiceless if the following vowel is voiceless (110). In position 4 (see below), it is always or nearly always a spirant, while in the other three positions it frequently has weak momentaneous closure preceded and followed by lenis velar friction.

Four positions of /k/ and /hk/ have been distinguished and are here labeled by the numbers 1 2 3 4 representing the positions from front to back. Position 1 is about the same as the position of English /k/ in key. Position 3 is close to that of English /k/ in took, and position 2 is about midway between 1 and 3. Position 4 is somewhat farther back than 3, and is farther back than any allophone of English /k/. /k/ and /hk/ have about the same position in the same environment, except that position 4 tends to be slightly farther back for k/v-v than for hk/v-v. /k/ is perhaps slightly farther back than /hk/ also in the environments

u-i and o-i . The environments in which the various positions occur are indicated in the table below. /k/ and /hk/ do not occur o-u (231), -o , nor before /a/ when following /ʔ/ or a low vowel. The shaded area in the table denotes those environments in which /q/ occurs. Squares which have both shading and a number represent the only environments in which the contrast k:q exists. Although k/o-e has not been found, its occurrence would not be inconsistent with the patterns of the system. There is apparently some difference between the positions of some of the allophonic sets given here with the same number, especially in the case of those given as position 3, but the differences are too slight to have been consistently perceived, so they are not mentioned. /k hk/ occur before /e/ after /a e/ only for /k/ which is initial in the phonemic representation of a noun root, e.g. /keejihsi/ 'sp. flower, and its seeds', /kehkeejihsi/ (distributive), /ʔahkeejihsi/ 'his/her ...'. Aside from <keejihsi>, only one other root has been found whose phonemic representation begins in /ke/, namely <keewii> Nf 'clam shell'. (There is only one noun root, <qety> Nf<sup>-</sup> '(abalone shell)' (317m), which has a phonemic representation beginning in /qe/.)

		following vowel						
		1	y	u	e	a	o	
P r e c e d i n g	ɤ	1	3	4	2			
	i	1	3	3	1			1
	y	2	3	4	3			3
	u	3	3	4	4			4
	e	1	3	3	2			
	a	2	3	4	2			
	o	3	3					

## Position 1:

/kitiiʔi./

cat.

/ʔikitiiʔi./

my cat.

/ʔehkipe./

acorn mush.

/nopikei./

house-having.

/ʔikawai./

will enter.

## Position 2:

/ʔyhnkitiiʔi./

thy cat.

/takitiiʔi./

our cat.

/keejihsi./

sp. flower.

/kehkeejihsi./

sp. flower, distributive.

/ʔahkeewii./

his clam shell.

## Position 3:

/jukikywa./

fem. name.

/toki./

right.

/kynkykei./

foot-having.

/°aci°wituhkykaa./	go stir it for her!
/°aceehkyhti./	held it for him.
/takyhky./	our feet.
/°apanoohkykaa./	go haul water for him!
/°ikuwa./	my husband.
/hyjeehku./	has recovered (from illness).

## Position 4:

/kuna./	wood.
/°yhkuwa./	thy husband.
/puhkukei./	dog-having.
/°ahkuwa./	her husband.
/°acihcukahti./	pointed at it.

114. /q/. /q/ occurs after /ʔ/, /h/, and /V/, and is always followed by a low vowel /e a o/. It is a postvelar stop or lenis spirant, depending on the environment. It is in overlapping distribution with /k/ (113).

q/ʔ- and q/h- are always fortis and voiceless stops, and are usually weakly aspirated, occasionally somewhat strongly aspirated, rarely unaspirated. The aspiration usually takes the form of a weak postvelar spirant.

q/V-V is a lenis postvelar spirant, voiced whenever the following vowel is voiced, but usually voiceless or voiced-becoming-voiceless if the following vowel is

voiceless (110). When voiceless, it contrasts clearly with /nx/, as it is shorter and much more lenis.

There is little variation in the position of /q/; it is always postvelar, almost but not quite as far back as Arabic /q/. The lenis q/V-V is slightly farther back than the fortis q/f- and q/h-, and /q/ and /hq/ are slightly farther forward after /i/ than otherwise. The front vowels /i e/ are centralized before /q hq/.

/qawaaju <sup>?</sup> u./	horse.
/ <sup>?</sup> iqawaaju <sup>?</sup> u./	my horse.
/ <sup>?</sup> yhqawaaju <sup>?</sup> u./	thy horse.
/nahqaei./	ear-having.
/ <sup>?</sup> ahqahqo <sup>?</sup> jo./	strawberries.
/qohiqahmahti./	has a stomach-ache.

The environments in which /q/ and /hq/ occur are indicated in the chart of 113. With two exceptions, /q hq/ occur before /a/ after a high vowel only for /q/ initial in the representation of a noun or verb stem. The two exceptions are: /tyqahpo/ 'rope', /pahnyqaahpy/ 'the Coast Range'. Only two forms have been found in which /q/ or /hq/ occurs after a high vowel and before /e/: /tyhqeeei/ 'sp. plant (whose greens were eaten)', /puhiqety/ representing <puhi qety> HF 'abalone shell' (312,317m). <qety> is the only noun root known whose representation begins in /qe/. Only one verb root has been found which has /qe/ initial in



its phonemic representation: <qete>, occurring in <cah qete  
 ʔhi> /cahqetetehi/ 'to drag noisily' (336,371d,242).

115. /kw/. /kw/ occurs after /ʔ/, /h/, and /V/; and is always followed by /V/ (any /V/ except /u/). It is realized as a stop or lenis spirant articulated by the dorsum, accompanied and followed by lip-rounding. It is in overlapping distribution with /qw/; both phonemes occur before /e a/ after high vowel or high vowel plus /h/; only /kw/ occurs before /i y o/, only /qw/ before /e a/ after /ʔ/ or low vowel or low vowel plus /h/. Neither /kw/ nor /qw/ occurs before /u/, and /kw/ occurs before /o/ only as the phonemic representation of w//h- (213). (//w// does not occur in the environment //h-u//.) Except for the form /suhkwaʔni/ 'cute', /kw hkw/ do not occur after /u o/ in representations of single morphemes. /kw/ and /qw/ are both relatively infrequent in occurrence.

kw/ʔ- and kw/h- are always fortis and voiceless and are almost always aspirated, the labial release being voiceless at its beginning.

kw/V-V is very lenis, is usually a spirant rather than a stop, but occasionally has momentary closure. It is voiced whenever the following /V/ is voiced but may be voiceless if the following /V/ is voiceless (110).

Unlike /k/, /kw/ has little variation in position of articulation. In all environments except /-o/ (where it is

always preceded by /h/), its position is about the same as position 3 of /k/ (113). When followed by /o/, its position is the same as position 4 of /k/. In the table which follows, a number is given for each environment in which /kw/ and/or /hkw/ occur. Shading indicates the environments in which /qw hqw/ occur. Small squares in certain spaces indicate environments in which the occurrence of /kw hkw/ and/or /qw hqw/ is limited. Blanks indicate environments in which neither /kw hkw/ nor /qw hqw/ occur.

		following vowel					
		i	y	u	e	a	o
p r e c e d i n g	f	3	3				
	i	3	3		3	3	4
	y	3	3		3	3	4
	u	3	3		3	3	
	e	3	3				
	a	3	3				4
	o				3	3	4

/kwi<sup>h</sup>naa<sup>h</sup>a./

eagle.

/<sup>h</sup>atyhkwilityhy./

talking to him.

/muhkwituu<sup>h</sup>u./

elephant.

/<sup>h</sup>a<sup>h</sup>ekwihti./

smelled it.

/pahkwi./

fish.

/kwikykei./

clitoris-having.

/ʔikwyky./	my clitoris.
/cyhkwyta./	vigorously.
/puhkwycyhpykihti./	is blinking.
/ʔehkwy./	ground squirrel.
/ʔahkwyky./	her clitoris.
/niihkwehci./	our (excl.) grey hair.
/ʔyhkwohci./	thy grey hair.
/ʔahupi jatuhkwee./	in his singing.
/taihkwaqahna./	what we (incl.) said.
/ʔyhkwaqahna./	what thou saidst.
/ʔakuuhkwahti./	will bury him.
/niihkwoo./	our (excl.) heads.
/ʔyhkwoo./	thy head.
/ʔahkwoo./	his/her head.
/wohkwoho./	burden baskets here and there.

116. /qw/. /qw/ occurs after /ʔ/, /h/, and /V/, and is always followed by /e/ or /a/. It is a post-velar stop or lenis spirant, accompanied and followed by lip-rounding. It is in overlapping distribution with /kw/ (115).

qw/ʔ- and qw/h- are fortis and voiceless stops, and are almost always aspirated, usually weakly, the labial release being voiceless at its beginning.

qw/V-V is a labialized lenis post-velar spirant, voiced whenever the following vowel is voiced, but usually voiceless if the following /V/ is voiceless (110).

There is no important variation in the position of articulation of /qw/, except that the lenis allophones tend to be slightly further back than the fortis ones, as in the case of /q/. The position is the same as that of /q/ (114).

The environments in which /qw/ occurs are indicated by the shaded area in the chart of 115. /qw/ occurs after high vowel or high vowel plus /h/ only when it is initial in the representation of a morpheme.

/qwena <sup>?</sup> a./	far.
/taihqwena <sup>?</sup> ahsu./	far from us (incl.).
/ <sup>?</sup> yhqwena <sup>?</sup> a./	far from thee.
/noheqwena <sup>?</sup> a./	very far.
/niihqwaahmahqwe./	beyond us (excl.).
/qwanyhki./	nine.
/ <sup>?</sup> yhqwaahmahqwe./	beyond thee.
/kuhqwapuhpukihti./	is boiling.
/ <sup>?</sup> acsehqwahti./	will hold it.
/ <sup>?</sup> ahqwaqahna./	what he said.
/toqohqwa./	rattlesnake.

117. /p/. /p/ occurs after /<sup>?</sup>/, /h/, and /V/, and is usually followed by /V/, although it may be followed by /t/

under special circumstances (237). It is a bilabial stop or spirant.

$p/\text{f}-$  and  $p/\text{h}-$  are realized as fortis and voiceless stops, and are usually weakly aspirated, occasionally rather strongly aspirated, often unaspirated. Unaspirated occurrences are almost as common as aspirated ones. In the uncommon instances in which  $p/\text{h}-$  is followed by  $/\text{t}/$  instead of by  $/\text{V}/$ , it is unreleased, except when  $/\text{m}/$  immediately follows the juncture, in which case it is nasally released.

$p/\text{V}-\text{V}$  is very lenis, and is usually a spirant, although momentary closure frequently takes place. It is voiced whenever the following  $/\text{V}/$  is voiced but is often voiceless or voiced-becoming-voiceless if the following  $/\text{V}/$  is voiceless (110).

No variation in the position of articulation of  $/p/$  has been noticed.

$/\text{pahi}/$

three.

$/\text{naapahi}/$

six.

118.  $/s/$ .  $/s/$  occurs only after  $/\text{f}/$  and  $/\text{h}/$ , and is always followed by  $/\text{V}/$ . It is a fortis, voiceless alveolar groove spirant. (Voiced lenis  $/s/$  occurs intervocalically in some Mono dialects, corresponding to  $/\text{hs}/$  of Northfork.) Aside from the difference in tongue-position in some intervocalic environments,  $/\text{hs}/$  differs from  $s/\text{f}-$  only in that it is slightly longer (110).

/s/ is always postalveolar, but it is articulated with two different parts of the tongue, depending on the environment. s/ʰ- is apico-postalveolar, regardless of the quality of the following vowel.

/syhmyʰy./

one.

/saahsiʰi./

sp. mushroom.

/siijaʰa./

saddle.

/sooʰjape./

ant.

After back vowels, /hs/ is apico-postalveolar, as initially, regardless of the quality of the following vowel. In this respect it is somewhat unlike /t n/ (112,123).

/qohso./

fire.

/suuhsiʰi./

Susie.

/ʰyhsono./

thy lungs.

After front vowels /i e/, the tongue position is forward, as for /t n/, but contact is made between the front of the tongue and the posterior edge of the alveolar ridge, rather than with the apex. Again, the quality of the following vowel makes no appreciable difference upon the position of articulation.

/ʰihsono./

my lungs.

/ʰihsihi./

my guts.

/ʰihsaʰa./

coyote.

/ʰehsipanakityhy./

grey.

In sequences of the type /sVhT/ and /sVʰt/ the vowel is usually voiceless, and, if it is a high vowel /i y u/,

the tongue usually remains in contact with the alveolar ridge during its articulation (see 140).

119. /x/. Like /s/, /x/ occurs only after /ʃ/ and /h/, and is always followed by /V/. It is a fortis, voiceless postvelar spirant. The phonemic sequence /hx/ represents a long fortis spirant. There is no appreciable variation in the position of its articulation, it being always postvelar, like /q qw/. Unlike /q qw/ (which have /k kw/ as counterparts), it has no counterpart in the prevelar and midvelar positions. It never occurs in any of the environments from which /q/ is excluded (113,114), being always followed by a low vowel. Moreover, /hx/ is preceded by a low vowel everywhere except: (1) where /x/ is initial in a morpheme-representation and a preceding high vowel belongs to the representation of another morpheme, e.g. /<sup>o</sup>ihxaahnu<sup>u</sup>/ 'my cup'; (2) in the form /tuhxoo<sup>o</sup>noho/ which, although uttered by the informant, was said to be a Yokuts word not used in Mono.

/x/ is a rare phoneme, easily the least common of the direct phonemes, occurring with less frequency than other consonants even in the class of environments to which it is limited. Of the 25 morphemes in whose representations it has been found, six are place names, six are personal names, at least four are imitative elements, one of which contains an anomalous phoneme (171). The following is a complete

list of the forms containing /x/ which have been found in the corpus, written morphophonemically, with distribution class symbols (303). Those which always occur in conjunction with another morph are given with it, separated from it by a space.

- //<sup>o</sup>aahpaxha ~ wū// L (a place name) (347, 397b)  
 //wacahxahna ~ wū// L 'at Manzanita Lake' (place name)  
 //soo<sup>o</sup>ja<sup>o</sup>ahxeni ~ wū// L (place name)  
 //pajahxehne ~ wū// L (place name)  
 //meehmeehxa<sup>o</sup>a ~ paah// L (place name)  
 //ponoohxo<sup>o</sup>// Nf<sup>-</sup> (place name)  
 //wa<sup>o</sup>na<sup>o</sup>mahxahti// Nf<sup>-</sup> (feminine name)  
 //jawaahxati// Nf<sup>-</sup> (Lucy Kinsman's name)  
 //<sup>o</sup>oohmo<sup>o</sup>ohxati// Nf<sup>-</sup> (feminine name)  
 //pojoohxati// Nf<sup>-</sup> (feminine name)  
 //kiveehnehxo// Nf<sup>-</sup> (feminine name)  
 //xaahnaihni// Nf<sup>-</sup> 'Caroline' (feminine name)  
 //<sup>o</sup>aa<sup>o</sup>wohxa// Nr 'gills'  
 //xooto// I (sound of snoring)  
 //xai<sup>o</sup>i// I (cry of the blue-fronted jay)  
 //wohxo// I (imitative sound occurring in a myth)  
 //xorrrrohto// I (imitative sound occurring in a myth)  
 (171)  
 //co<sup>o</sup>nohxai hna<sup>o</sup>// Nf 'sp. bird'  
 //seehxajuu<sup>o</sup>// Nf 'white-oak mushroom'



- //tah taahxo ʔi// Vt<sup>-</sup> '(tire) to blow out' (385,371d)  
 //xaahnu'// Nf 'cup'  
 //xoʔmaʔna'// Nf 'long white beads'  
 //cahtaahxaʔi// Vi 'to make seed mush'  
 //ʔaaʔjaʔahxa pY// Nf 'sp. plant' (332)  
 //pih xooopy ʔi// Vt '(bird) to shed tail feathers'

### 120 Resonants

120. The resonants /j w n m/ all occur after /f/ and /h/, and are fortis in these environments, like the obstruents. All of them except /m/ (cf. 216) occur after /V/ and are, again like the obstruents, more weakly articulated here than in in other environments. Unlike the obstruents, the resonants also occur after /ʔ/, where they are fortis. With the exception of /n/, which under special circumstances (239) may be followed by /f/, the resonants are always followed by /V/.

All of the resonants (like all of the phonemes except /s x ʔ/) occur both voiced and voiceless. They are generally voiced; but in the environment /ʔ-V.ʃ/ they are voiceless, along with the vowel. The clusters /hj hw/, which occur only rarely, begin voiceless and usually end voiced; but they may be voiceless throughout if followed by /./.

/poqo <sup>o</sup> ja.##/	lizard.
/taxuhnapi <sup>o</sup> wa.##/	our (incl.) pimples.
/ <sup>o</sup> aahpa <sup>o</sup> ni./	apple(s).
/nahsy <sup>o</sup> my.##/	entirely.
/hupuhja.##/	elderberry.
/ <sup>o</sup> ipahwa.##/	my aunt.
/ <sup>o</sup> ipahwahci <sup>o</sup> i./	my aunt (dim).

The clusters /hn hm/ are, at equivalent rates of speed, about twice as long as a single intervocalic consonant. In initial position, the nasals are as long as or slightly longer than intervocalic consonants, while the semivowels are about the same length as C/V-V.

/<sup>o</sup>ipehu+nahnahtyhykwityhmahqahuna./ (161)

maybe each-other-telling that-obj.

Maybe they are talking about that.

121. /j/. /j/ occurs after /ʔ/, /h/, and /V/, and is always followed by /V/. With the exception of the form /keejihsi/ 'sp. flower, and its seeds' (cf. 113), it has not been found followed by /i/. It is a frontal semivowel, closely resembling English /y/ except in its farthest back position.

When occurring after /ʔ/, /h/, or /<sup>o</sup>/, /j/ is more strongly articulated than when after /V/; but the difference is less readily perceptible than in the case of /n/ and /T/.

*j/V-V* tends to have wider aperture and more relaxed articulation than in other environments; the difference is very slight, and is only a relative one: in careless speech the degree of aperture is greater and the strength of articulation less, even for the fortis allophones. It is probably correct to state, however, that under equivalent conditions of speed and clarity there is a perceptible difference between *j/V-V* and *j/V+-V*.

*/poihpaitai+jaqahti./*      Poipoi is crying.  
*/taijaqahkytyhy./*      making us cry.

*/j/* has positional allophones corresponding to those of */t n/* (see .112) with regard to the general tongue position, differing from them only in that the apex does not make contact with the teeth or alveolar ridge, and in that the front is raised. When it is preceded and followed by */a o/*, the tongue is slightly farther back than otherwise for */j/* between back vowels, and in this position, the apex is raised as well as the front, and often produces slight friction between itself and the alveolar ridge. Thus there are five positions to be distinguished, as follows: 1, after front vowel; 2, after */f/*; 3, after back vowel before front vowel; 4, between back vowels except when both the preceding and following vowels are */a o/*; 5, between */a o/*.

*/wija./*                      (1)                      (black oak) acorn.  
*/jaqahti./*                    (2)                      cried.  
*/wo<sup>o</sup>ajeetyhy./* (3)                      has measles.

/myjy./	(4)	gopher.
/qawaaju <sup>o</sup> u./	(4)	horse.
/paja./	(5)	water.
/pojo./	(5)	road.

In the articulation of /Hj/ clusters (which occur only after /V/) the tongue position is the same as for intervocalic /j/. The tongue reaches this position either at the same time as the onset of the glottal articulation or very slightly thereafter, and there is often (especially when the glottal is /<sup>o</sup>/) a glide toward that position before the onset of the glottal articulation. The /hj/ sequence has been found in the representations of only two morphemes: <hupuhja>, <pohja> (see examples below); it does not occur at morpheme boundaries. This cluster begins with glottal friction, which is followed in rapid succession by glottal friction plus voiceless fronto-palatal friction, then voiceless fronto-palatal friction alone, then voiced fronto-palatal semivowel. The length of this sequence is equivalent to that of other consonant clusters of Northfork, namely about twice as long as a single intervocalic consonant. The /<sup>o</sup>j/ cluster, which has the same length, begins with glottal stop accompanied by the same tongue position which /j/ would have in this environment if the /<sup>o</sup>/ were not present, followed by a semivowel in that position. (On voicing in clusters, see 120.)

/hupuhja./

elderberry.

/tycipohjatyhy./	stringing things (e.g. fish) on a stick.
/poqo <sup>o</sup> ja./	lizard.
/qahnihsu <sup>o</sup> ju./	trousers.
/qahnihsu <sup>o</sup> jukei./	having trousers.

.122. /w/. /w/ occurs after /<sup>o</sup>/, /H/, and /V/, and is always followed by /V/. It does not occur in the environment /u-u/ (215b), and is followed by /u/ only under the following circumstances: (1) when it represents //m// (216), e.g. /<sup>o</sup>iwupi./ //<sup>o</sup>imupih.// 'my nose.' (224b); (2) in the locative suffix /wu/ //wū// (231b, 347) which occurs in certain place names (and is of Yokuts origin); (3) in the masculine name /pahnaawu<sup>o</sup>u/ //pahnaawu'// (227); (4) in the qualitative adverb /cawu/ 'good'. It is realized as a semivowel articulated by rounding of the lips and raising of the dorsum. In the speech of Annie Wenz (but not that of Lucy Kinsman) the sequence /ywy/ sometimes occurs without the labial component of /w/.

When occurring after /<sup>o</sup>/ or /H/, /w/ is more strongly articulated than when after /V/; but, as in the case of /j/, the difference is less readily perceptible than it is for /n T/. w/V-V tends to have wider aperture (of both the labial and dorsal components) and more relaxed articulation than w/<sup>o</sup>-V. The difference is very slight, and is only relative; in careless speech the degree of aperture is

greater and the strength of articulation less even for w/?-V . It is probably correct to state, however, that under equivalent conditions of speed and clarity of pronunciation, there is a perceptible difference between w/V-V and w/Vf-V .

/hihpaatai+wa'ahnai+'aiwaqatyhy./

What is wa'annai telling them?

The contrasts /uwi/:/ui/ and /owi/:/oi/ are relatively slight, since there is a tendency for an intrusive w-like glide in /ui oi/ in slow speech. At the same rate of speed, however, w/u-i and w/o-i are fairly strongly articulated, though they may practically disappear in fast speech. The contrast is perhaps most clearly marked by stress. In /uwi owi/ the two vowels are differently stressed, whereas in /ui oi/ the vowels share strong or intermediate stress (107). (In the following examples, strong and intermediate stresses are marked, even though they are not phonemic.)

/,poi'h'poi./

Poipoi. (masc. name)

/,nowi'jahti./

moved away (to another dwelling-place).

/no,wija'tyhy./

moving away.

/,ʔuu,ʔuih'na'a./

roadrunner.

/,juwi'tyhy./

warm.

/ju'wihpy./

has become warm.

There is little important variation in the position of the lips for /w/ in different environments; but there is variation in the position of the dorsum, the difference

between w/i-i and w/a-a , for example, being clearly noticeable in this respect; the tongue is farther forward in the former. Detailed observations of the differences in tongue position have not been made.

/kwiwihi./

north.

/'inawa./

my father.

In /hw/ clusters the w-position of the lips and tongue is reached at about the same time as the onset of the glottal articulation, and there is sometimes a glide toward this position before the glottal articulation begins. This glide appears to occur less frequently than the corresponding phenomenon in the case of /j/. The /hw/ cluster occurs only in the representations of three morphemes (<pahwa>, <pihwi'>, <qwatyyhwi>) and at the boundary of one combination (<wooh wooh>). This cluster has some glottal friction at its beginning, usually voiceless, overlapping with the semivowel, which usually becomes voiced before the beginning of the following vowel (120). The length of the stretch represented by /hw/ is equivalent to that of other consonant clusters of Northfork, i.e. about twice as long as a single intervocalic consonant. The /'w/ cluster, which has the same length and occurs in the representations of some 15 morphemes or more as well as at some morpheme boundaries, begins with glottal stop accompanied by the tongue and lip position of /w/: this is followed by a semivowel in that

position, which is generally voiced except before /V.##/  
(120).

/ʔipahwa./	my aunt.
/pihwiʔi./	sp. flower.
/ʔaqwatyyhwihti./	belched.
/woohwoohnaʔapy./	Sequoia gigantea.
/haʔwyhkahti./	light (in weight).
/heʔwiʔihti./	is limping.
/tawuhnapɪʔwa./	our (incl.) pimples.

123. /n/. /n/ occurs after /ʔ/, /H/, and /V/, and is almost always followed by /V/, but can be followed by /+n/ or /·n/ (239). It is an apical nasal, the point of contact of the apex being determined by the environment.

n/ʔ- and n/H- are fortis, n/V-V lenis. The difference is more clearly and consistently perceptible than for the semivowels, but less so than for /T/, where voicing usually plays an added part in making the distinction. n/ʔ- is usually slightly longer than n/V- , but not as long as /hn/.

/maniʔihi+naʔineehpaʔityhy./

That's what they are saying.

/nyyhkwa+naʔineenti./ we (excl.) said.

The various positions at which the apex makes contact for /n hn/, according to the environment, are the same as for /t ht/ (112).



/nopinihtu./ 2 1	house-like.
/maniʔihi./ 3	like that.
/nana./ 2 4	man.

/hm/ is the phonemic representation of a long fortis apical nasal (about twice as long as n/V-V). /h/ here has no glottal articulation but (as with /hs hx hm/) is marked only by the length and tenseness of the oral articulation. /hm/ is voiced throughout except when followed by /V.#/, where it begins voiced, ends voiceless.

/ʔahnahqa./	his/her ear.
/ʔahpihtyhna./	his/her arrival.

In the cluster /ʔn/ there is glottal closure taking place at about the same time as the apical closure (which has the same position as if /ʔ/ were not present). The apical closure often does not take place until slightly later than the glottal, but sometimes precedes it very slightly. The glottal release is followed by an apical nasal, which is voiced unless the sequence /V.#/ follows, in which case it is voiceless, along with the following /V/. The length of the stretch represented by /ʔn/ is about twice that of a single intervocalic consonant.

/ʔaahpaʔni./	apple(s).
/hoʔnopi./	bat.

In the sequences /<sup>ʔ</sup>n+n/ and /<sup>ʔ</sup>n·n/, which occur only rarely (cf. 239), the glottis remains closed for a somewhat longer time than in /<sup>ʔ</sup>n/ which is followed by /V/, and the tongue seems to move to position 2 (postdental) during the articulation of the nasal.

/caiqo<sup>ʔ</sup>n+nohapityhy./      bluejay sitting on  
its eggs.

124. /m/. /m/ occurs after /<sup>ʔ</sup>/ and /h/, but (like /s x/) never after /V/ (216). It is always followed by /V/. It is a bilabial nasal, usually voiced.

It is always fortis, as it never occurs in the environments where lenis allophones of consonants occur (namely after /V/). m/~~f~~ is usually slightly longer than a single intervocalic consonant, but not as long as /hm/. No variation in the position of articulation of /m/ has been noted.

/hm/ is the phonemic representation of a long fortis bilabial nasal (about twice as long as C/V-V). /h/ here has no glottal articulation but (as with /hn hs hx/) is marked only by the length and tenseness of the oral articulation. Like /hn/, /hm/ is voiced throughout except when followed by /V.#/, where it begins voiced and ends voiceless.

/jyhmyhna<sup>ʔ</sup>a./      acorn soup.  
/nyyhrey./      person, Indian.

In the /<sup>o</sup>m/ cluster, there is glottal closure taking place at about the same time as the bilabial closure. The labial closure often does not take place until slightly later than the glottal, but sometimes precedes it very slightly. The glottal closure is followed by a bilabial nasal, which is voiced except when this occurrence of /m/ is followed by /V.#/, in which case it is voiceless along with the following vowel. The length of the stretch represented by /<sup>o</sup>m/ is about twice that of a single intervocalic consonant under equivalent conditions.

/wi<sup>o</sup>me<sup>o</sup>ni./

maso. name.

/<sup>o</sup>anaho<sup>o</sup>mi./

buy it!

### 130 Glottals

130. The glottals /h<sup>o</sup>/ are always preceded by /f/ or /V/, and are generally followed by /V/ or /C/, but the sequences /h<sup>o</sup>/ (225d) and /<sup>o</sup>+/ (227b, 238) have also been noted. Of the consonants, any except /h<sup>o</sup>/ may follow /h/, while only the resonants occur after /<sup>o</sup>/. Except for a few isolated occurrences of /nt/, all consonant clusters in Northfork have /h/ or /<sup>o</sup>/ as the first member.

In N/V-V the mouth tends to stay in the position of the preceding vowel during the glottal articulation, especially when the following /V/ is stressed. As a result, there is

often a slight w-like glide after /h/ which follows /u o/ and precedes a stressed non-labial vowel and, less often, a slight palatal glide after /h/ which follows /i/ and precedes a stressed back vowel. These glides are much shorter and less prominent than the semivowels in the sequences /hjV/ and /hwV/; there is further difference where the glottal is /h/, as h/V-V is generally voiced.

/huhpu <sup>?</sup> ihti./	dove. (vorb)
/pohihta./	skunk.
/ <sup>?</sup> iuhci <sup>?</sup> i./	my maternal grandmother.

The members of consonant clusters (except the rare /nt/) tend to be more simultaneous than successive in their articulation, though the length of a cluster is nevertheless about twice that of C/V-V. The clusters /hj hw/ begin with glottal friction and end with voiced semivowels, with an intermediate zone in which features of the two members overlap. In the clusters which have /<sup>?</sup>/ as the first member /<sup>?</sup>n <sup>?</sup>m <sup>?</sup>j <sup>?</sup>w/, the articulation of the second member begins at about the same time as that of the /<sup>?</sup>/, but continues after the glottal release. In /nt/ there is usually preaspiration of the stop, a feature assignable to /h/ in these environments, but this often fails to take place. The fortis and voiceless quality and the long duration of the stop are also taken to be functions of the /h/, and they occur simultaneously with the realization of the stop phoneme.

In the remaining clusters /hm hn hs hx/, the articulation of the two members is entirely simultaneous, the function of /h/ here being limited to the fortis quality and length of articulation of the sound represented by the other member of the cluster.

/ʰipahwa./	my aunt.
/poqoʰja./	lizard.
/wiʰmeʰni./	masc. name.
/wynyhy./	tree.
/maahnoho./	there.

131. /h/. /h/ occurs after /ʰ/ and /V/, and may be followed by any direct phoneme (103) except /h ʰ/. Under special circumstances (225c,d) it can be followed by /·/ or /,/ (152, 153), but it is ordinarily followed only by direct phonemes. /h/ is classed as a glottal since some of its allophones have glottal articulation, and because it patterns with /ʰ/. In some environments, however, /h/ has no glottal articulation.

h/ʰ-/ is a fortis glottal spirant. It is sometimes voiced throughout if the preceding juncture phoneme is immediately preceded by a vowel. Otherwise it begins voiceless, but usually becomes voiced almost immediately. Initial /h/ is accompanied by the vocalism (first voiceless, then voiced) of the following /V/.

Intervocalic /h/, where the following /V/ is not followed by /ʔ/, is a lenis glottal spirant, usually voiced throughout, but occasionally partially voiceless. It seems usually to be accompanied by the vocalism of the preceding /V/ if the following /V/ is stressed (see 130), and often also if the following /V/ is not stressed. More often, if the following /V/ is unstressed, the vocalism accompanying /h/ is predominantly that of the following vowel; i.e. the transition (if the vowels are different) takes place near the beginning of the /h/.

In the sequences /hV+/ the /h/ and /V/ are pronounced together, as a voiceless vowel accompanied by glottal friction. The combination is often voiced at its beginning (i.e. voiced vowel accompanied by voiced glottal friction), and occasionally is voiced throughout if followed by /+/ which is immediately followed by /C/ (rather than by ).

/ʔiqawya./

my chin.

/qohsooʔmoho./

Southern Sierra Miwok.

/qohsooʔmoho+kihmahti./

Miwoks are coming.

The clusters /hJ/ begin with voiceless glottal friction accompanied by transition from the quality of the preceding /V/ to that of the semivowel. After the speech organs have reached the position of the semivowel, the glottal friction ceases and the semivowel becomes voiced and is immediately released to the position of the following /V/. (For examples see 121, 122.)

The /hʔ/ clusters are realized as long fortis voiceless stops, usually preaspirated. The length, fortis quality, and preaspiration are functions of /h/ in this environment. The preaspiration takes the form of a spirant of very wide aperture in the position of the stop. However, it is not always present; its presence or absence seems to be a matter of free variation, since checking fails to reveal any conditioning factors, either in the position of the stop, the quality of the preceding vowel, or the position of the syllables involved with regard to conditions determining stress. In all environments, presence of preaspiration is two to three times as frequent as absence of same.

The clusters /hs hx/ are long, fortis, and voiceless, and are never preaspirated. /hn hm/ are long, fortis, and usually voiced (123, 124). In these four clusters /h/ is represented only by the length and fortis quality of the articulation represented by the other member.

A further property of /h/, when followed by /v/ or /x/, is that the pitch of the preceding vowel is slightly lower than before other consonants, other conditions of the environment being equal. Before /hʔ/, however, the pitch of vowels is the same as before consonants other than /h/. (It has not been determined whether the pitch of a vowel is lower before h/-J/.)

132. /ʔ/. /ʔ/ occurs after /t/ and /v/, and may be followed by vowels and resonants or, under special circumstances (227b, 230), by /t/.

Unlike /r/, /ʔ/ is always glottal in its articulation. It is usually realized as a glottal stop, but sometimes, when initial or intervocalic, it is realized as constriction of the glottis which approximates complete closure but fails to achieve it completely. The occurrence of constriction rather than complete closure seems to be more frequent in the environment /V-Vt/ than elsewhere; and the following /v/ in this sequence is usually accompanied by glottal stricture. ʔ/V-V/ is occasionally somewhat longer than other intervocalic consonants.

/ʔahpo./

cooking basket.

/hahkwihsaʔityhy./

sneezing.

/wowaʔa./

Chukchansi Yokuts.

/wowaʔa+kihmahti./

Chukchansis are coming.

In the clusters in which /ʔ/ occurs /ʔj ʔw ʔn ʔm/ there is a tendency for the articulation of the resonant to begin at about the same time as that of the /ʔ/. The articulation of the resonant always continues after the release of the /ʔ/. In /ʔj ʔw/ there is often a glide toward the position of the semivowel before the glottal closure takes place. This is more common for /ʔj/ than for /ʔw/.

/wiʔmeʔni./

masc. name.



/ha<sup>h</sup>wohca<sup>h</sup>a./

fox.

/ʰahqahqo<sup>h</sup>jo./

strawberries.

The sequence /ʰ+ʰ/ (227b, 238) is realized as a long glottal stop, generally held long enough to be equivalent in length to sequences of the type /ʰV+C/ (where /C/ is other than /ʰ/). The /+/ is marked by the same phenomena which would be present in the sequence /ʰV+C/ (107, 151), except that its effect on the (non-existent) preceding vowel is absent.

/ʰipohso<sup>h</sup>+ʰapunihti./

my partner sees it.

#### 140 Vowels

140. The vowels /i y u e a o/ occur after consonants and may be followed by /+/ or by any /C/ except /m s x/. In addition, the following vowel clusters occur: /ii yy uu ee aa oo yi ui ei ai oi ea/; the last of these occurs only in the interjection /ʰea<sup>h</sup>a/.

Except for /y/, the vowels have relatively minor qualitative allophonic differences.

A syllabic nucleus consists of a vowel or a vowel cluster. With the exception of /ea/, whose second member has greater sonority, the two members of a vowel cluster have approximately equal sonority and stress, and are uninterrupted

by any laryngeal or sublaryngeal process. The length of a syllabic nucleus is conditioned by several factors; under equivalent conditions, the relative lengths of various types of nuclei are as follows:

- (1) /VV/ is about twice as long as /V/.
- (2) A /V/ which belongs to a two-vowel stress unit is about one-and-a-half times as long as a /V/ which belongs to a three-vowel stress unit (107e).
- (3) The syllabic nucleus of a closed syllable is slightly shorter than that of an open syllable.
- (4) A stressed vowel tends to be slightly longer than an unstressed one. It may be quite a bit longer if it is the vowel of an initial syllable with strong stress (107d), as in a two-syllable utterance.
- (5) A syllabic nucleus consisting of a single /V/ is often very short before /t/ which is followed by a full stress unit, and is always extremely short before /t/ which is followed by a weak stress unit (107e). A syllabic nucleus consisting of /VV/ is correspondingly shorter before /t/; it is only slightly longer than V/C-C/ when followed by /t/ which is followed by a weak stress unit.
- (6) Before /· ,/ (especially /,/) a syllabic nucleus is quite a bit longer than before /C/; a one-vowel nucleus in the former environment is almost as long as

/VV/ before /C/, and /VV/ before /·/ or /,/ is correspondingly longer.

Vowel clusters are always voiced. Single vowels are fully voiced except in the environments listed below, where they are always or sometimes voiceless, or fading from voiced to voiceless, as specified.

- hX-+ always voiceless in normal speech.
- hX-+C almost always voiceless.
- hV-+ not only voiceless, but usually has no audible breath, although the mouth can be seen to be in the proper position for the /V/ involved.
- h-+ voiceless or fading from voiced to voiceless, and accompanied by glottal aspiration.
- h-+C usually voiceless or fading, but occasionally voiced if phonemically different from the /V/ which precedes the /h/.
- + sometimes voiceless, but usually weakly voiced and accompanied by glottal stricture.
- VV- voiceless or fading from voiced to voiceless.
- VJ- fading from voiced to voiceless.
- s-hX usually voiceless when unstressed, often voiceless even when stressed; low vowels are voiced more often than high vowels in this environment.
- hX-hX (where the first /X/ is other than /s/) occasionally voiceless, but usually voiced; the

tendency to be voiceless is greater if the /V/ is unstressed.

— usually fades to voiceless at end.

Pitch of vowels is treated in 160, stress in 107. The vowels have a partial influence upon the position of surrounding /c hc t ht n hn k hk kw hkw hs/, as described in 111, 112, 113, 115, 118.

The low vowels are always realized as vocoids, and the high vowels are realized as vocoids except in a very few environments. y/hs-hT/ and y/hs-t/ are represented by syllabic [s] in free variation with a high central vocoid. u/hs-hT/ and u/hs-t/ are represented by syllabic [s] accompanied by lip-rounding and raised dorsum in free variation with a high back rounded vocoid. i/hs-hT/ and i/hs-t/ are represented by a palatalized syllabic [s] in free variation with a high front vocoid. When a vocoid occurs for high vowels in these environments, it is usually voiceless (see above). Syllabic [s] is in all three cases the more frequent representation. i/hn-hT/ is usually represented by a palatalized syllabic [n], but sometimes by a high front vocoid.

141. /i/. /i/ may be preceded by any /C/ except /x q gw/, and by any /V/. It is the only vowel which can follow a /V/ other than itself in vowel clusters. It may be followed by any /C/ except /s x n/, by itself, or by any juncture phoneme.

There is little variation in quality among the phonetic representations of /i/. In most environments it is represented by front vocoids varying from high to lower high, usually closer to high. The environments in which this is not the case are mentioned in the following paragraphs.

i/C-(h)q/ and i/C-(h)qw/ are somewhat centralized and slightly lower than /i/ of most environments. The height is around lower high, and it is between front and central, with occasional occurrences closer to central than front. These allophones are very close in quality to the forward allophones of /y/ (142), and the contrast between these two phonemes when preceded by a front consonant and followed by /q hq qw hqw/ is very slight.

/°awyhsiqoota?i./	scrape it!
/cyqoota./	dish.

i/hn-ht/ is often realized as a syllabic palatalized [n], the apex failing to be released from its point of contact for the vowel. /i/ is marked in this situation not only by the palatal quality of the syllabic nasal but also by the dental position of the following /ht/ and by the fact that no other vowel is ever represented by syllabic [n]. This phenomenon may also occur for i/hn-hc/ and i/hn-hs/, but it has not been noticed. The sequence /hniht/ has been found only in the representations of two morphemes, in both of which the vowel which precedes is /a/. As the /hn/ is

thus alveolar (123,112), the apex, if it remains unreleased for the /i/, moves forward to dental position during the syllabic nasal.

/sahnihtiija <sup>2</sup> a./	watermelon.
/sahnihte <sup>2</sup> ni./	frying pan.

In sequences of the type /hsihT/ and /hsit/ the apex often fails to be released and the /i/ is realized as a palatalized syllabic [s]. If the vowel which precedes such a sequence is other than /i e/, the apex moves forward from its postalveolar position (118) as the front is raised, regardless of what follows the /i/.

/kihmahsi+/ /pihsihtoonaa <sup>2</sup> a./	having come pistol.
---	------------------------

142. /y/. /y/ may be preceded by any /C/ except /x q qw/, and by itself. It may be followed by any /C/ except /s x m/, by /i y/, or by /t/.

/y/ varies from high to lower high and from central to back. It is central after front consonants, back after all other consonants.

/syhmy <sup>2</sup> y./	one.
/pyyhsy <sup>2</sup> yhkihmahti./	came alone.

Syllabic [s] (without palatalization or labialization) often occurs for /y/ in sequences of the type /hsyhT/ (especially where /T/ is /t/ or /c/), and occasionally in the

sequence /hsyʔ/. In the former sequence the tendency for /y/ to be realized as syllabic [s] is greater if its position with relation to the following sequence is such that it is unstressed.

/nohihsyhta <sup>o</sup> ihti./	is freezing.
/nohihsyhta <sup>o</sup> ityhy./	freezing.
/ <sup>o</sup> iqwahsy./	my buckskin.

143. /u/. /u/ may be preceded by any /C/ except /x q kw qw/, and by itself. It may be followed by any /C/ except /s x m/, by /i u/, or by /ʔ/.

In most environments, /u/ is high to lower high, usually closer to high; it is slightly farther back than the back allophones of /y/; and the lips are somewhat more rounded than for English /uw/.

Interconsonantal /u/ which is separated from an /a/ of the preceding or following syllable by a single consonant other than /w/ tends to have a lower tongue height, often as low as upper mid, although the lips seem to be as much rounded as for the higher allophones and more so than for the upper mid allophones of /o/ (146).

u/hs-hʔ/ and u/hs-ʔ/ are usually realized as syllabic [s] accompanied by lip-rounding and with the back of the tongue raised. Occasionally, however, the preceding /s/ is released and the /u/ is represented by a vocoid, as in other environments.

/puhku./	dog/pet.
/ʔapunihti./	saw it.
/pojonahsu./	along the road.
/ʔahsuhcahti./	likes it.

144. /e/. /e/ may be preceded by any /C/, and by itself. It may be followed by any /C/ except /s x m/, by /i e/, or by /ʔ/. It occurs with a good deal less frequency than any other vowel.

/e/ is generally front and mid to lower mid, usually closer to mid. It is somewhat higher, ranging up to upper mid, when followed by /i ci hci hti hsi ni hni ʔni/ (the sequences /eti eji esi ehji eʔji/ do not occur), and when preceded by /j/. Like /i/, it is centralized before /q hq qw hqw/.

/ʔehkwy./	ground squirrel.
/nopiwsee./	in the house.
/nopikei./	house-having.
/syjeepeci./	coward.
/noheqwenaʔa./	very far away.

145. /a/. /a/ may be preceded by any /C/, and by itself. It may be followed by any /C/ except /s x m/, by /i a/, or by /ʔ/. It is the most frequently occurring of the vowels.

/a/ is a low to higher low central vowel. It has a tendency to be higher when unstressed than otherwise, and in



careless speech it may range to as high as lower mid when unstressed. When followed by /i j/ or preceded by /j/ it is fronted and raised.

/nana./	man.
/ni jawai./	will go.

146. /o/. /o/ may be preceded by any /C/ except /k qw/, and by itself. It may be followed by any /C/ except /s x m/, by /i o/, or by /+./.

It is realized as a back rounded vocoid varying in height from mid to lower mid, usually closer to mid, in most environments. It is somewhat higher, ranging up to upper mid, when preceded or followed by /w/, and perhaps to some extent also when preceded or followed by /m hm p hp/.

/pojo./	road.
/nowi jawai./	will move away.

### 150 Junctures

150. The junctures /+ . , ./ are always followed by /C/ or by , and are the only phonemes which occur before . /· ,/ are generally preceded by /V/, but may be preceded by /h/; /+ ./ are usually preceded by /V/ but they occur after certain consonants under special conditions.

The junctures and are in general alike with regard to their effect upon the articulation of following consonants. The length and pitch of vowels in initial syllables is the same after /· , ./ and , and under some conditions after /+/. The junctures are also alike in that they all play the same role in the determination of the positions of occurrence of stress in preceding words (107).

The phenomena accounted for by the junctures are related primarily to what precedes, particularly the preceding vowel. The effect of each of the junctures upon the preceding vowel may be sketchily summarized as follows:

- /+/ preceding /V/ short and weakly articulated (often voiceless), with little or no drop in pitch (from the preceding level) if voiced.
- /·/ preceding /V/ always voiced, has pitch level 1+, and is held to full length or longer, with fadeout at end.
- ./ preceding /V/ has pitch level 2+, is held to full length or longer, with no fadeout.
- ./ preceding /V/ short and weakly articulated (often voiceless), has pitch level 1 if voiced.

Note that, with respect to the preceding vowel, /+/ and ./ are very similar. They are in fact the same whenever the preceding vowel is voiceless. Nevertheless, they contrast clearly with each other in their effect upon that which precedes that /V/, and often also in their effect upon the syllable which follows them.

Description of phenomena involving pitch is made with reference to a scheme which represents the pitch range of normal speech as extending from 1 (the bottom of the range) to 4 (the top of the range except in special circumstances). 2 represents the level at which utterances and sentences (i.e. sequences following /./ or and extending to and including the next /./) usually begin. Where /· ,/ and supra-segmental phonemes do not occur, the pitch level stays around 2 until the last stressed syllable before /./, where it rises to around 3. The interval between 1 and 2 is greater than that between 2 and 3.

151. /+/. /+/ is the most frequently occurring of the junctures. It is always followed by /C/ or , and is usually preceded by /V/, although it is sometimes preceded by /C/ under special circumstances (227b, 237-239). Some of the features for which /+/ is held accountable are described below.

a. Length of preceding /V/. V/C-+/ is shorter than V/C-C/, at equivalent rates of speed, if any of the following three conditions is present:

(1) The following syllable is a weak stress unit (107e). The brevity of the vowel in question is related to the tendency to maintain roughly equal time intervals between the incidences of intermediate and strong stresses. Under the condition stated, there are two

successive syllables without intermediate or strong stress; these two syllables combined cover about the same time interval as is covered by a single unstressed syllable which is internal in a word. The syllable following /+ / has roughly two-thirds the length of an internal unstressed syllable, while that preceding /+ / has roughly one-third that length. Thus the weak stress unit and the preceding full stress unit together have the duration of one usual full stress unit.

(2) The /C / which precedes V/-+ / is /° /. Under this condition the vowel is usually considerable shorter than an unstressed vowel occurring internally in a word, even when condition (1) is not present. Thus, if condition (1) does not hold, but (2) does, the usually regular rhythm of successive stress units is upset.

(3) The syllable which precedes V/C-+ / contains a vowel cluster. Under this condition, the /V / is the third vowel of a three vowel stress unit. When not followed by /+ /, the third vowel of a stress unit has roughly 2/3 the duration of a /V / occurring as the second /V / of a two vowel stress unit (and not followed by /+ /). When followed by /+ /, however, the third /V / of a stress unit has considerably less duration, and the preceding two vowels are correspondingly longer. Where condition (1) is present, a vowel cluster preceding /+ / is shorter than one preceding /C /. (The other

two conditions do not apply to vowel clusters preceding /+/.)

If none of the above conditions is present, V/C-+/ and VV/C-+/ are nevertheless often significantly shorter than V/C-C/ and VV/C-C/ respectively.

b. Voicing of preceding /V/. V/C-+/ is voiced or voiceless depending primarily upon further conditions of the environment. The details are given in 140.

c. Pitch. Unlike the other junctures, /+/ has little or no effect on the pitch of the preceding /V/, although it does have a slight effect on the pitch of the /V/ (or /VV/) of the next preceding syllable. Unless a suprasegmental phoneme is present, V/-+/ has pitch level 2 if it is voiced. The nucleus of the next preceding syllable has a somewhat higher pitch, which could be represented as 2+ or 3-.

152. /•/. /•/ is always followed by /C/ or by , and is usually preceded by /V/, but occasionally occurs after /h/ (225d).

Vowels preceding /•/ are always voiced and are rather long, with the voice fading if # follows. The duration of V/C-•/ approaches that of VV/C-C/; VV/C-•/ is correspondingly longer. Although they are of comparable duration, VV/C-+/ and V/C-•/ clearly contrast with regard to stress and pitch.

$V/C\cdot/$  has 1+ pitch (slightly higher than the pitch of  $V/C\cdot./$ ).  $VV/\cdot./$  has a pitch contour falling from 2+ to 1+.

In the sequences  $/Vh\cdot/$  (which occur only as representations of  $//Vh\cdot+//$  225d, 253), the phonetic realization is similar to that of  $VV/\cdot./$ , except that the duration is shorter. In this environment  $/h/$  is not represented by a glottal spirant, its function being to account for the stress on the preceding  $/V/$  (according to 107a).

153.  $/,/$ .  $/,/$  is a phoneme of very infrequent occurrence. (It occurs only as the representation of  $//,/ //$  which, in turn, occurs only as the representation of  $<, >$ .  $//,/ //$  and  $<, >$ , however, have not been treated in this grammar.) It is always followed by  $/C/$  or  $,$  and is usually preceded by  $/V/$ , although the sequence  $/Vh,/$  has also been found (225c).

Vowels preceding  $/,/$  are always voiced and rather long, like vowels before  $/\cdot/$ . Unlike the latter, however,  $V/\cdot,/$  does not have a fadeout of voicing, nor does it have low pitch. The pitch of  $V/\cdot,/$  is fairly high, around 2+ or 3, and is level. A vowel cluster preceding  $/,/$  apparently differs from single  $/V/$  before  $/,/$  only in that it is about twice as long, and is stressed.

Sequences of the type  $/Vh,/$  are similar to the sequences  $/Vh\cdot/$  (152), except for the difference in pitch and the lack of fadeout. The function of  $/h/$  here is the same as in  $/Vh\cdot/$ .

154. /./ . /./ is always followed by /C/ or , and is usually preceded by /V/, but it sometimes follows /C/ (under the conditions indicated in 237).

/./ is similar to /+ / in that preceding vowels are short and weakly articulated (often voiceless). It contrasts with /+ / in the pitch contour and the degree of stress which it determines, and in some environments it also differs slightly in its effect on voicing and length of the preceding /V/.

The stressed syllable of a stress unit which is followed by /./ has strong stress, unless /' / occurs on a preceding stress unit (461). (Where /' / does occur on a preceding stress unit, /./ contrasts with /+ / in its effect on the following sequence. After /./ the pitch level is 2; after /+ /, when there is a preceding /' /, the pitch level is 1.)

The pitch contour determined by /./ is a fall from 3 or 3+ to 1; but the fall may not reach level 1 if V/-./ is voiceless. (This pitch contour does not occur, however, if /' /, /^ /, or /' / is present in the preceding sequence, with no intervening /./ or , unless /' / occurs on the last stress unit preceding /./.) The fall takes place on the syllable preceding /./ if it contains a vowel cluster. Otherwise it begins on the next preceding syllable. In other words, the falling pitch occurs on the last stressed syllable; if this is the next-to-last syllable and the /V/ of the last syllable is voiced, the latter has pitch level 1.

V/-./ is apparently always shorter than V/-C/, at equal rates of speed, regardless of the other features of the environment. On voicing of V/-./ see 140.

### 160 Suprasegmental Phonemes

160. The suprasegmental phonemes /' ^ ` (/) accompany sequences of segmental phonemes of varying length, but never extending beyond an occurrence of /./ . /(/) apparently always occurs with entire sentences. (A sentence, on the phonemic level, is a sequence of phonemes extending from /./ or the beginning of an utterance to, and including, the next following /./.) The sentences with which /(/) occurs are generally very short. /' / apparently occurs only with the last stress unit of a sentence. /' ^ / have scope extending from the beginning of a full stress unit anywhere in the sentence to the end of the sentence. These four phonemes seem to be mutually exclusive, but there is a possibility that /' / and /(/) / can occur together. /' ^ ` / are written over the first vowel of the stress unit with which their scope begins. The symbol representing /(/) / is written such that its two components enclose the sentence with which the phoneme occurs.

Each of these phonemes occurs only as the representation of a single morpheme. Since the morphemes involved



are not treated as such in this grammar, some remarks on their meanings are included in this section, in so far as these meanings have been ascertained.

161. /'/. This phoneme occurs with portions of sentences varying from a single stress unit to a whole sentence, but always including the end of a sentence with which it occurs. The scope of its coverage seems always to start at the beginning of a full stress unit.

It represents an intonation contour, and strong stress on the syllable with which its scope begins. Pitch level 4 occurs, with strong stress (sometimes extra strong) on the syllable with which its scope begins; /' / is written over the (first) /V / of this syllable. The pitch falls during this syllable if it contains /VV /, or on the next one if it does not. Succeeding syllables have pitch 1, with apparently the possibility of some slight variation about this level if there are several following syllables. If the beginning of this contour is on a stress unit preceding the last one of the sentence, the last one does not have strong stress and high pitch (as it does when no suprasegmental phoneme occurs). /+ / and /./ are distinguished from each other, after the occurrence of /' / in a sentence, by the fact that the pitch level continues to be 1 after /+ /, whereas after /./ it goes back up to 2 (the usual level for the beginnings of sentences).

The meaning of the morpheme <'> has to do with emphasis upon the form at which the contour begins.

162. /<sup>^</sup>/. Like /<sup>'</sup>/, /<sup>^</sup>/ occurs with portions of sentences varying from single stress units to the whole sentences, but it always extends to the end of a sentence with which it occurs. The scope of its coverage seems always to start with the beginning of a full stress unit. It represents an intonation contour which begins with a fairly high pitch level (3 to 4) and which falls gradually from this level on following syllables, till it reaches level 1 at the end of the sentence. The beginning of the contour has intermediate stress (not strong stress, as with /<sup>'</sup>/), and the last stress unit in the sentence also has intermediate stress; there seems to be no occurrence of strong stress in a sentence containing /<sup>^</sup>/. The symbol for this phoneme is written over the (first) /V/ of the first stress unit included in its scope. Unlike /<sup>'</sup>/, /<sup>^</sup>/ seems not to occur (i.e. to begin to occur) near the ends of sentences.

The meaning of <<sup>^</sup>> is not clear.

163. /<sup>'</sup>/. /<sup>'</sup>/ apparently does not vary with respect to the amount of a sentence over which its scope extends. Its distinctive characteristic is the pitch of the last stressed /V/ of the sentence, which falls from level 2 (instead of going up to 3). This fall is sometimes anticipated to a

slight degree on two or three syllables immediately preceding the last stress unit. This seems likely to be a matter of free variation; thus it may be correct to state that this phoneme occurs in only one position of a sentence. It is written over the first /V/ of the last stress unit of the sentence.

The meaning of <'> is unclear. It sometimes appears to be connected with lack of enthusiasm of the speaker regarding what he is talking about. Sometimes it appears to indicate concern or reflection.

164. /()//. This phoneme occurs with whole sentences, usually very short ones. It is marked by a shift of the entire pitch register to around two or more tones lower than that of a preceding sequence not occurring with /()//. The lowered pitch register is characterized also by diminution of the intervals between the pitch level. In addition, the volume of the voice is considerably less than that in surrounding sequences not enclosed in /()/; and the last stressed syllable before ./ does not usually have higher pitch than the preceding syllables (as it does when there is no accompanying suprasegmental phoneme).

The sentences occurring with /()/ are usually very short, often containing only a single word. In terms of its meaning, the sequence containing <()> is a word or phrase which amplifies or clarifies some idea expressed in the

preceding sentence; or, most often, the sequence accompanying /()/ is a form like /'inetyhy./ 'saying' or /'inehti./ 'says/said' or an expression of the like containing another verb of saying; these forms can be freely translated, 'one might say' or 'one would say', where reference is to the preceding sentence.

/°ipehuhmahu+nyyhmy.(°inetyhy.)//

Maybe that's an Indian. (One might say.)

### 170 Anomalous Phonemes

170. Some sounds which have occurred in the speech of Lucy Kinsman and/or other Northfork speakers are, for one reason or another (as indicated below), considered not to belong to the standard phonemic system of Northfork Mono. These sounds are accounted for by what are called the anomalous phonemes. Some of them are treated briefly in this section; they have been ignored throughout the remainder of the grammar.

171. An apico-alveolar trill has been found in two imitative expressions, which themselves are somewhat anomalous morphemically, in that they do not (like most imitative expressions) occur with the suffixes <hna'> iNf 'being which makes the sound ...' (318d) and <°i> iV 'to make the

sound ...' (367c); i.e. they occur only as frustums (402b). One of these imitatives is accompanied by a very high pitch, with an intonation contour that is not found elsewhere in the language (176).

172. An alveopalatal affricate, long, fortis, and voiceless, occurs (intervocally) in an imitative word occurring in a mythological text. This word is accompanied by a distinctive intonation, and occurs only as a frustum. In accordance with its long, fortis, voiceless quality and the patterns involving other consonants, this sound can be represented by /hč/. It is not, however, considered elsewhere in this description.

173. In the text mentioned above, another element occurs which contains a long fortis voiced bilabial stop intervocally. The word occurs in a quotation uttered by the same character who utters the imitative expression mentioned in 172. The occurrence of length and fortis quality in conjunction with voicing is contrary to the standard pattern of Northfork consonants. The word in question is clearly a borrowing from Northeastern Mono or from Southern Paviotso (in which long fortis voiced stops occur). Northfork has the cognate, with the corresponding stop voiceless. The Northforkcognate is /'yhpety/ 'thy daughter'; the form occurring in this text might be rendered /'yhbaaty'y/.

174. A velar nasal, long, fortis, voiced, intervocalic, and thus representable by /ŋ/, has been found in a hand-game song which appears to be of Yokuts origin.

175. A phoneme /l/ occurs in at least two songs, which may be of Yokuts origin. It also occurs in a few personal names of English origin (where it corresponds to English /l/), in which it varies freely with /n/. In these names, the variants containing /n/ are taken as standard.

176. A number of phonetic features involving pitch, intonation contours, modification of tone of voice, and/or anomalous stress patterns, which are associated with specific imitative expressions, are classed as anomalous and are not described in this grammar.

177. Another suprasegmental phoneme which has been classed as anomalous comes closer to the possibility of being considered standard, since it occurs somewhat more freely than those mentioned above. It may be referred to as allegro, and might be written with a raised line extending over those segments which it affects. A sequence of phonemes accompanied by the allegro phoneme is uttered at about double the speed of the adjacent syllables (which have a fairly definite rhythm established by the regular stress pattern). Phonemes accompanied by allegro have

phonetic features differing from those occurring when *allegro* is not present, mainly in the following respects: the obstruents and nasals usually occur with only an approach of the articulator to the point of articulation, or with very fleeting contact; /i e u o/ are more centralized, /a/ is higher, /i y u/ are lower. There is often extreme difficulty in determining the phonemic segments represented in such a sequence, but the determination of the phonemes present is usually aided by consideration of the semantic context and knowledge of the fact that the *allegro* phoneme has a tendency to occur with particular forms. The forms which have most frequently been found with *allegro* are /qatu<sup>2</sup>w/ 'no, not, none' and /<sup>2</sup>awaahii<sup>2</sup>ihti/ 'wants/wanted it'; the latter often sounds almost as if it might be approximately rendered as \*/<sup>2</sup>awaihti/. Often, when one of these forms occurs with the *allegro* phoneme, the scope of that phoneme extends also to one or more syllables (in one or both directions) of contiguous forms, sometimes as far as to include three or four words in all.

The primary argument for considering *allegro* an anomalous phoneme is based on the following fact: wherever it occurs, it varies freely with zero, i.e. with its absence. Moreover, in every case in which the informant was asked to repeat, as closely as possible, a sequence containing *allegro* which had been recorded on tape, the repetition occurred without the occurrence of *allegro*. *Allegro* tends to occur

most commonly in conversation and in spontaneous, unpremeditated texts.

178. One juncture phoneme which has been classed as anomalous is associated with interruption of an utterance by the speaker in the midst of a sentence (often in the middle of a word), under circumstances which make it apparent that the speaker has changed his mind about what he was going to say. Occurrences of this anomalous juncture are followed by (what the speaker apparently chooses as) an alternative beginning (and continuation) of the utterance or some portion of the utterance. As in the case of *allegro*, occurrences of this phoneme and the immediately preceding sequence are never repeated by the informant, even immediately after she has heard their reproductions on the tape recorder. The phoneme is marked by a shortening of the time span covered by the preceding two or three segments, becoming progressively shorter, with no change in the pitch level.



## CHAPTER TWO

### MORPHOPHONEMICS

201. This chapter describes the relationships between the phonemes and morphophonemes of Northfork by means of statements defining the phonemic representation, or realization, of the morphophonemes, whose inventory is indicated below (202). Additional data, on distribution and on relationships to the morphemic level, are added wherever they are considered to be of particular interest.

As indicated in 1d, the morpheme is characterized by:

- (1) one or more morphophonemic representations, or morphs;
- (2) distributional properties, or membership in one or more distribution classes;
- (3) one or more semantic representations, or semes.

Where a morpheme has more than one morphophonemic representation, each of them may be referred to as an allomorph of the morpheme. (Similarly, two or more semes of the same morpheme may be called its allosemes.) (Allo)morphs and morphophonemes are enclosed in //...//.

A morphophoneme will be said to correspond to a phoneme if it is written with the same symbol as that phoneme, and is represented by that phoneme in at least some of its (morphophonemic) environments.

202. The inventory of morphophonemes includes one morphophoneme corresponding to each of the phonemes (102), plus the following:

Oral Stop:	Ā	
Nasal:	N	
Semivowels:	Ĵ	ŵ
Glottals:	ħ	' ,
High Vowels:	ū	Y
Reduplicatives:	R	Ṛ
Juncture:	~	

# represents pause, which is considered to be the absence of linguistic phenomena. It is not set up either as a phoneme or a morphophoneme, but sometimes functions as a significant factor in an environment. As it is not given a structural status, it is allowed to circulate freely among the various levels, representing the same thing whether enclosed by /.../ or by //...// or by nothing. It occurs only after junctures, except //~//, and before the beginning of utterances.

203. The classification of the morphophonemes is based upon that of the phonemes (103), as follows: morphophonemes which have corresponding phonemes (201) belong to classes having the same names as the classes to which their

corresponding phonemes belong. The morphophonemes without corresponding phonemes are classed as indicated in 202.

204. The notational devices used in this chapter are described below.

a. The following morphophonemic cover symbols are used:

V - any vowel	J - any semivowel
C - any consonant	I - any high vowel
H - //h// or //°//	A - any low vowel
X - any obstruent	f - //+//, //, //, or //.//
T - any oral stop	" - //ø// or //~// or a
* - any combination made up solely of //C ~ u//	glottal, or any com- bination of these

b. Except where they are too complicated, morphophemic rules are stated in the following type of notation:

$$x//y_1 \dots y_n - z_1 \dots z_n/w$$

This is to be interpreted as follows: The morphophoneme

//x//, when preceded by the morphophonemic sequence

//y<sub>1</sub>...y<sub>n</sub>// and followed by the morphophonemic sequence

//z<sub>1</sub>...z<sub>n</sub>//, is represented phonemically by /w/. That is,

the morphophoneme under discussion is given at the left.

The environment for which the rule applies is given in the

space between // and /, with the position in the environment

designated by --. The phonemic representation is given after /. When -- is not preceded or followed by any morphophonemic symbols, the rule applies for any preceding or following morphophoneme, respectively. If the rule applies for all environments, -- is written in the space for environment.

c. Wherever some special statement concerning an environment is needed, an asterisk \* accompanies the appropriate symbol, and an explanation is given.

d. In some of the examples in this and the following chapters, morphs are separated by spaces (which have no morphophonemic significance). E.g. //ta ta// = //tata//.

e. Most morphs are continuous and follow one another in linear order. When this is not the case, the following devices are used if it is desired to indicate morph boundaries:

(1) Two dots following a morph-initial morphophonemic symbol indicate that that morphophoneme occurs (a) immediately before the second preceding morphophoneme, if the latter is a consonant, or (b) immediately after the second preceding morphophoneme if the latter is a vowel, or if the first preceding morphophoneme is //r//.

//mija ʔ..hki// = //miʔjahki//

//ʔehki ʔ..hki// = //ʔehʔkihki//

//wy ʔ..hki// = //wyʔyhki//

//kwipi R h..ki// = //kwipihRki//

//wynacu h..// = //wynahcu//

(2) Two commas preceding a morphophonemic symbol indicate that that morphophoneme occurs (a) immediately after the third following morphophoneme if the fourth is a consonant, or (b) immediately before the third following morphophoneme if the fourth is a vowel.

//,,~ ʔahca pana// = //ʔah~capana// (319f)

//Rh,,ʔ syy mano htu// = //Rhsyyʔmanohtu// (382)

//,,h ʔytyʔy// = //ʔyhtyʔy// (384b)

## 210 Oral Consonant Morphophonemics

210. The class of oral consonant morphophonemes comprises one member corresponding to each of the oral consonant phonemes, plus three others of rare occurrence, //k̄ j̄ w̄//, and one other, //N//, which occurs in a single very frequently occurring morph, //Na// representing <Na> n0 'obj.' (337a)

Except where specified otherwise by the statements of 211-217, any oral consonant morphophoneme is represented phonemically by its corresponding phoneme.

211. The phonemes /k q/ are in overlapping distribution, as shown by the table of 113. Since /q/ never occurs before high vowels, and /k/ never occurs before /o/, //k// is set up for all morphs whose phonemic representations have /k/ followed by high vowel, and //q// for those whose phonemic representations have /q/ followed by /o/. /k/ occurs before /a/ only in suffixes and in the interior of morph representations, never initially in the representation of a root morpheme. Thus root-initial /q/ which is followed by /a/ never alternates with /k/. In other than root-initial position, /k/ occurs before /a/ when preceded by high vowel or high vowel plus /h/, except in the case of two morph representations which have /q/ instead: /tyqahpo/ 'rope', /pahnyqaahpy/ 'the Coast Range'. There are only two known roots whose representations begin in /ke/, /keejihsi/ 'sp. flower or its seeds' and /keewii/ 'clam shell'; and two whose representations begin in /qe/, /qety/, which occurs in the combination /puhi qety/ 'abalone shell', and /qete/, which occurs in the combination /cah qete tehi/ 'to drag noisily'. As with the roots with initial /qa/ (and all roots with initial velar stop), there is never any alternation involving the initial consonant for these roots with initial /ke/ and /qe/. In other than root-initial position, /k/ but not /q/ occurs when there is following /e/ and preceding high vowel or high vowel plus /h/, except in one form, /tyhqeeci/ 'sp. plant (whose greens were eaten)'. This form, like the two cited

above which have /qa/ where /ka/ might be expected, are set up with //q//. //jaqa// 'to cry' is the only morph having the alternation in its interior (235).

Thus the alternation /k/-/q/ occurs only for suffixes with /ke/-/qe/, /ka/-/qa/, /ku/-/qo/ (231a), and for //jaqa//. These suffixes are set up with //k//; the two roots mentioned above whose representations begin in /ke/ are set up with //k̄//. The alternations involving /k/ and /q/ are covered by the statements below.

a. k//A<sup>n</sup>-A/q

//no pih ~ ke i//	house-having (396b)
/nopikei/	(224a)
// <sup>o</sup> ahpo ~ ke i//	basket-having
/ <sup>o</sup> ahpoqe i/	
// <sup>o</sup> a puh ~ni kaa hpy//	has gone to see it
/ <sup>o</sup> apunikaahpy/	
//pa hkwi ka kaa hpy//	has gone fishing
/pahkwikaqaahpy/	

b. k//o<sup>x</sup>-u/q

//wahahku//	two-obj.
/wahahku/	
//syywanohku//	ten-obj.
/syywanohqo/	(231a)

- c.  $\bar{k} // -- / k$   
     //<sup>o</sup>ah  $\bar{k}$ ewii//                      his clam-shell  
     /<sup>o</sup>ahkeewii/
- d.  $q // -a \sim i / k$   
     //jaqa  $\sim i$ //                      to cry at/to  
     /jaki/                                  (235)

212. /kw/ and /qw/ are in overlapping distribution, as shown by the table of 115. The only environments in which both occur are /i-e/, /i-a/, /y-e/, /y-a/, and /u-a/. Of the two phonemes, only /kw/ occurs before /i y o/, and it occurs before /o/ only as the representation of //w//. Neither occurs before /u/. As in the case of /k q/, /kw/ and /qw/ undergo no alternation if they are initial in representations of roots. There are only two suffixes whose representations begin in /hkw/-/hqw/, aside from those in which the stop represents //w//; (there are no suffixes having representations beginning in /kw/ or /qw/.) These two suffixes are <hkwa> vVg 'remote future' (376), and <hkwa'> nNp 'plural' (322a). The sequence /kwe/ occurs only when this /kw/ is the realization of //w//. Thus there is no statement needed for the alternation of /kw qw/ representing //kw qw// except before /a/. The only forms involved are the suffixes mentioned above. //kw// is set up for these, paralleling the treatment of /k/-/q/ (211).



kw//A"-a/qw

//<sup>o</sup>a puh <sup>ni</sup> hkwa hti//      will see it

/<sup>o</sup>apunihkwahti/

//pa hkwi ka hkwa hti//      will go fishing

/pahkwikahqwahti/

The distribution of post-vocalic //kw// and //qw// is indicated in the table of 213.

213. /w/-/kw/-/qw/ represent //w//. Aside from the two suffixes beginning in //hkwa// mentioned in 212, /kw/ never occurs before low vowels except as the representation of //w//. The morphophoneme //w̄// is set up for the three forms which contain the sequence /hw/: //pahw̄a// 'father's sister; uncle's wife', //pih̄wi'// 'sp. flower', //qwatyyh̄wi// 'to belch'. In the statements a and d below, h̄ signifies //h// or //h̄// (225).

a. w//Ih̄-/kw

//wyh weni//      to hang (smthg.) up

/wyhkweni/

//<sup>o</sup>i weh̄oi//      my grey hair

/<sup>o</sup>iweh̄oi/

//<sup>o</sup>yh weh̄oi//      thy grey hair

/<sup>o</sup>yhkweh̄oi/

//waqa//      to say

- //ʔi waqa hna//                    what I said (318a)  
 /ʔiwaqahna/
- //ʔyh waqa hna//                    what thou saidst  
 /ʔyhkwaqahna/
- b. w//Ah-I/kw  
     //cah wyna ʔi//                    to knock down  
     /cahkwynaʔi/
- c. w//h-o/kw  
     //ʔi wooh .//                    my head.  
     /ʔiwoo./                            (225)  
     //ʔyh wooh .//                    thy head.  
     /ʔyhkwoo./
- d. w//Ah-e/qw  
     //ʔah wehci//                    his grey hair  
     /ʔahqwehci/  
     //no pih ~ paʔah weeh .//            over the house  
     /nopipaʔahqwee./
- e. w//Ah-a/qw  
     //ʔah waqa hna//                    what he/she said  
     /ʔahqwaqahna/
- f. w̄//--/w  
     //qwatyyh̄wi//                    to belch  
     /qwatyyhwi/

These statements are summarized in the following table:

		following vowel					
		i	y	u	e	a	o
p r e c e d i n g	i	<u>kw</u>	<u>kw</u>		<u>kw</u>	<u>kw</u>	kw
	y	<u>kw</u>	<u>kw</u>		<u>kw</u>	<u>kw</u>	kw
	u	<u>kw</u>	<u>kw</u>		<u>kw</u>	<u>kw</u>	kw
	e	<u>kw</u>	<u>kw</u>		<u>qw</u>	<u>qw</u>	kw
	a	<u>kw</u>	<u>kw</u>		<u>qw</u>	<u>qw</u>	kw
	o	<u>kw</u>	<u>kw</u>		<u>qw</u>	<u>qw</u>	kw

kw : //hw// represented by /hkw/

qw : //hw// represented by /hqw/

   : //kw// and/or //hkw// occur

   : //qw// and/or //hqw// occur

Note that when /kw/ occurs after /lh/ and before /a/ it can automatically be known that it is either (a) not the initial phoneme of a root, or (b) the initial phoneme of a root, representing //w//. Where /qw/ occurs in the same environment, it must be initial in a root, and represent //qw//.

//<sup>o</sup>yhwahnihni//

thy barrel

/<sup>o</sup>yhkwahnihni/

//<sup>o</sup>yhwahkihta//

on this side of thee

/<sup>o</sup>yhkwahkihta/

//ʔyŋqwaahnahqwe//

on the other side of thee

/ʔyŋqwaahnahqwe/

214. The alternation /j~/t/ corresponds to that of /w~/kw~/qw/, but is simpler, as there is only one stop taking part in the alternation. The morphophoneme //j// is set up for the two forms in which the sequence /hj/ occurs: /hupuhja/ 'elderberries', /ci pohja/ 'to string (fish) on a stick'.

a. j//h~/t

//ʔi jatuha ~i hti// spoke to me

/ʔijatuhihti/

//nah nah jatuha ~i hti// spoke to each other

/nahnahtatuhihti/

b. j//--/j

//hupuhja// elderberries

/hupuhja/

215. Intervocalic //w// is sometimes represented by /ø/, according to the following statements.

a. In the environments //V-V// and //Vh~-V//, except (1) //y(h~-)i//, (2) where the preceding //V// is //i// and the following //V// is other than //i//, (3) //VV(h~-)V//, (4) //V(h~-)VV//, //w// is represented sometimes by /w/

(unless 215b applies), sometimes by /ø/. The tendency for //w// to be represented by /ø/ rather than /w/ is somewhat greater if its position with regard to the following syllables up to the next occurrence of //ʔ// is such that, were it represented by /w/, this /w/ would be the beginning of a stress unit (107e). This is especially the case if the preceding and following vowels are identical.

//pa hkwi wihsi .//      fish-line.  
 /pahkwiihsi./  
 //pa hkwi wihsi Na .//      fish-line-obj.  
 /pahkwiwihsina./      (217)

b. w//u<sup>~</sup>-ū/ø

//cu<sup>h</sup>muujuju<sup>~</sup>wūh.//      (a place name)  
 /cu<sup>h</sup>muujujuu./      (231b, 224b)

(The sequence //wū// occurs only in the representation of <wū> nL<sup>~</sup> 'at' (348a), which is always preceded by <~>.)

c. In the environment //i-a//, //w// is usually represented by /j/, but occasionally by /w/, if its position with regard to the following sequence up to the next occurrence of //ʔ// is such that its phonemic representation falls at the beginning of a stress unit; if its position is otherwise, it is always represented by /w/.

//pa hsiwah Py//      sand  
 /pahsijahpy/

//pa hsiwah noo kaa wai//      will go haul sand  
/pahsiwahnooqaawai/              (211a)

216. Intervocalic /m/ does not occur. In those environments where it might be expected, /w/ occurs instead.

a. m//V-V/w

//<sup>o</sup>yh mah ~ja//                      thy hand (224a)

/<sup>o</sup>yhmaja/

//<sup>o</sup>i mah ~ja//                      my hand

/<sup>o</sup>iwaja/

b. m//Vh~V/w

//wijah ~mahqa//                      to give acorns to

/wijawahqa/

c. m//<sup>o</sup>-V/w

//pahnijoo<sup>o</sup>hna<sup>o</sup> my//                      Mexicans

/pahnijoo<sup>o</sup>hna<sup>o</sup>awy/                      (227c)

217. //N// occurs only in the representation of <Na> n0 'obj.' (337a). Its phonemic realizations are covered by the following statements:

a. N//<sup>o</sup>-/a      (cf. 227g. i.e. N'//--/<sup>o</sup>a)

//pahnijoo<sup>o</sup>hna<sup>o</sup> Na//                      Mexican-obj.

/pahnijoo<sup>o</sup>hna<sup>o</sup>aa/

- b. YN//--/yn-a (232)  
 //wjah pY Na// (black) oak-obj.  
 /wjahpyna/-/wjahpaa/  
 //pahnyqaahpY Na// the Coast Range-obj.  
 /pahnyqaahpyna/-/pahnyqaahpaa/
- c. yñN//--/a (225m, 233)  
 //mija tyñ Na// going-obj.  
 /mijataa/  
 //ʔi kwyytyñ Na// my friend-obj.  
 /ʔikwyytaa/
- d. N//--\*/n \*except where 217a, b, or c applies.  
 //puhku Na// dog-obj.  
 /puhkuna/  
 //wjah Na// black oak acorns-obj.  
 /wijana/ (224c)

## 220 Glottal Morphophonemics

220. The glottal morphophonemes are //ʔ ' h ñ ' //. Those without corresponding phonemes //ñ ' ' // are defined in 225, 226, and 227 respectively. Except where specified otherwise by the statements of 221-224, or 236, //ʔ h // are represented phonemically by their corresponding phonemes.

221. /s x/ do not occur intervocalically. Where they might be expected, one finds instead /hs hx/, as specified by the following statements.

a.  $\emptyset//V(\sim)-s/h$

//<sup>o</sup>yh sono//

thy lungs

/<sup>o</sup>yhsono/

//<sup>o</sup>i sono//

my lungs

/<sup>o</sup>ihsono/

b.  $\emptyset//V-x/h$

//<sup>o</sup>i xaahnu' .//

my cup.

/<sup>o</sup>ihxaahnu<sup>o</sup>u./

(227a)

222.  $\text{?}//\text{-X/h}$

//mija <sup>o</sup>..hki hti// (204e)

went hesitantly (373a)

/mi<sup>o</sup>jahkihti/

//<sup>o</sup>a wyy <sup>o</sup>..hki hti//

took it hesitantly

/<sup>o</sup>awy<sup>o</sup>yhkihti/

//jaqa <sup>o</sup>..hki hti//

cried hesitantly

/jahqahkihti/

//<sup>o</sup>ehki <sup>o</sup>..hki hti//

ate acorn hesitantly

/<sup>o</sup>ehkihkihti/

(223a)

223. Phonemic sequences of the type /HH/ do not occur.

a.  $H//\text{-H}/\emptyset$



//<sup>o</sup>yh hahma' .// thy older sister.  
 /<sup>o</sup>yhahma<sup>o</sup>a./  
 //<sup>o</sup>ah <sup>o</sup>awa// his horns  
 /<sup>o</sup>a<sup>o</sup>awa/  
 //hahkwihsa <sup>o</sup>i <sup>o</sup>..ki hti// is sneezing inter-  
 /hahkwihsa<sup>o</sup>ikihti/ mittently

b. h//-'/ø  
 //typah ' .// piñon nuts.  
 /typa<sup>o</sup>a./

224. //h// is represented by /ø/ in a few additional environments, as specified by the following statements.

a. h//~~/ø  
 //no pih ~ weeh .// in the house. (396b)  
 /nopiwee./ (224b)

b. h//-f/ø  
 //<sup>o</sup>i no pih .// my house.  
 /<sup>o</sup>inopi./

c. h//-N/ø (217)  
 //<sup>o</sup>i no pih Na// my house-obj.  
 /<sup>o</sup>inopina/

d. h//f<sup>\*</sup>-C/ø f<sup>\*</sup>: any juncture, or //  
 //nohi hmukih pY// object with very  
 /nohihmukihpy/ sharp point

//# hmukih pY//

pointed object

/mukihpy/

225. The special "h" morphophoneme //ĥ// occurs finally in all morphs containing it. Most of these morphs represent locative morphemes (340), but there are some which represent morphemes of other classes:

//tyĥ//	representing <tyĥ> vNf, lH (319a, b)
//neĥ//	<neĥ> vT 'while ...ing' (358b)
//hnuĥ//	<hnuĥ> vNr <sup>+</sup> (319a)
//eĥ//, //neĥ//	<hti> vIN (379b)
//qeĥ//	<qeĥ> hN indef. pron. base (328)
//hsy <sup>o</sup> yĥ//	<hsy <sup>o</sup> yĥ> F 'only' (395)
//~tijaĥ//	<~tijaĥ> .E, F 'also, anyway, okay' (392b, 393b, 395)
//jaqaĥ//	<jaqaĥ> C, Ce 'perhaps, apparently' (393)
//kwyytyĥ//	<kwyytyĥ> Nf 'friend' (318)

The two final morphophonemes //Vĥ// of the morphs containing //ĥ// are realized phonemically by sequences of the types /VhV/, /Vh/, /V/. In the /VhV/ realization, the vowel which follows the /h/ is the same as that which precedes it, and is thus predictable. The special morphophoneme //ĥ//, differing from //h//, must be set up since there are other morphs ending in //Vh// whose phonemic realizations exhibit a different type of alternation (224). The possibility of

setting up //VhV// to cover this alternation is ruled out by the fact that there are morphemes with morphs ending in //VhV// whose phonemic realizations have /VhV/ in all environments, for example:

<qohsoo'moho> Nf 'Southern Sierra Miwok'

<ceehpahnihī> Nf 'magic; magician'

<mowahu> T 'now'

//Vh// is realized as /VhV/ only when followed by //.// or //+#//. Otherwise the sequence is realized as /Vh/ or /V/. The statements which govern the phonemic realization of //h// are as follows:

- a. h//V<sub>1</sub>\*-/hV<sub>1</sub> \*except where 225b applies
- |                       |                      |
|-----------------------|----------------------|
| //mijatyh̄.//         | going.               |
| /mijatyhy./           |                      |
| //nopih̄pa'ahtȳh̄.// | that which is on top |
| /nopipa'ahtyhy./      | of the house. (224a, |
|                       | 2251)                |
| //typihnahtukūh̄.//  | onto the ground.     |
| /typihnahtukuhu./     |                      |
- b. h//oꞤu-./ho
- |                       |         |
|-----------------------|---------|
| //'ahnapanoohnūh̄.// | bucket. |
| /'ahnapanoohnoho./    | (231a)  |
- c. h//-,/h (153)
- |                |        |
|----------------|--------|
| //mijatȳh̄,// | going, |
| /mijatyh̄, /   |        |

- d.  $\tilde{h} // - + \cdot / h$  (152, 253)
- |                          |                   |
|--------------------------|-------------------|
| //nymahmañ+•cipuhihti//  | is climbing on me |
| /nywahmah•cipuhihti/     | (216a)            |
| //nyhohtuneñ+•mijatyñ.// | going with me.    |
| /nyhohtoneh•mijatyhy./   | (231, 225a)       |
- e.  $\tilde{h} // V_1^* - + \# / h V_1$  \*except where 225f applies
- |                          |                |
|--------------------------|----------------|
| //nyhohtuneñ+•mijatyñ.// | going with me. |
| /nyhohtonehe+•mijatyhy./ |                |
- f.  $\tilde{h} // o \times u - + \# / ho$
- |                       |        |
|-----------------------|--------|
| //°ahnapanoohnuñ+•#// | bucket |
| /°ahnapanoohnoho+•#/  | (231a) |
- g.  $\tilde{h} // - + H / \emptyset$
- |                                     |                    |
|-------------------------------------|--------------------|
| //°yhmah~ja~hmañ+°amah~tyhoi.//     | dig with your      |
| /°ymajahma°awatyhoi./               | hands! (224a, 252) |
| //nahqaa+°ižoñ+°ahpuhku+pihtytyñ.// | whose dog is this  |
| /nahqaa+°ižo°ahpuhku+pihtytyhy./    | coming? (252)      |
| //nymahmañ+hohpohpo°+cipuhihti.//   | a spider crawled   |
| /nywahmahohpohpo°o+cipuhinti.//     | on me. (227a)      |
- h.  $\tilde{h} // - + J / \emptyset$
- |                          |                 |
|--------------------------|-----------------|
| //kihmahkwañ+wahkihta.// | come ye hither! |
| /kihmahqwawahkihta./     | (212, 252)      |
- i.  $\tilde{h} // - + C^* / h$   $C^*$  not H or J
- |                           |                       |
|---------------------------|-----------------------|
| //°imah~ja~hmañ+nywihti// | is walking on my hand |
| /°iwajahmahnywihti/       | (216a, 224a)          |

- //nymahmañ+cipuhihti// is climbing on me  
 /nywahmahcipuhihti/ (216a, 252)  
 //nyhohtuneñ+mijahti.// went with me.  
 /nyhohtonehmijahti./ (231, 252)  
 //°iwijah~pa°añ+kuhsa.// on top of my acorns,  
 /°iwijapa°ahkuhsa./ a bag. (224a, 252)
- j. ħ//~ /ø  
 //pa~ja~tukuñ~tai+mijahti.// went through the  
 /pajatukutai+mijahti./ water (251)  
 //°ijoñtyñ~tii+wijah+// here are acorns  
 /°ijohtytili+wija+/ (2251, 224b)
- k. ħ//~H /ø  
 //haqeñhoi// with whom  
 /haqehoi/  
 //mijatyñ°ahqa// among those going  
 /mijaty°ahqa/
- l. ħ//~C\*/h C\* not H  
 //mahsihkaata°~hmañtukuñ.// into the handkerchief.  
 /mahsihkaata°ahmahtukuhu./ (227d, 225a)  
 //nopih~pa°añtyñ.// that which is on top  
 /nopipa°ahtyhy./ of the house (224a)  
 //sipiñtyñmy.// easterners (i.e.  
 /sipihtyhmy./ the Northeast Mono).

- m. yñN/--/a (217)
- |                 |                |
|-----------------|----------------|
| //mijatyñNa//   | going-obj.     |
| /mijataa/       |                |
| //ʔikwyytyñNa// | my friend-obj. |
| /ʔikwyytaa/     |                |

226. Another special "h" morphophoneme is necessary for an alternation of the type /V~/VhV/ (with no /Vh/ alternant), with the conditions of the alternation differing from those of //h// and //ñ//. This morphophoneme is symbolized as //ʔ//, and occurs in <hkwaʔ> nñp (322) and in four verbal suffixes: <hkyʔ> vVt (372a), <kiʔ> vVf, <hmiʔ> vVf, <htiʔ> vVf (377b).

- a. ʔ//V<sub>1</sub>-./hV<sub>1</sub>
- |                      |                   |
|----------------------|-------------------|
| //ʔajoqahsitihkyʔ.// | make her blow her |
| /ʔajoqahsitihkyhy./  | nose!             |
| //ʔapuh~nikiʔ.//     | come see it!      |
| /ʔapunikihi./        |                   |
- b. ʔ/--\*/ø \*except where 226a applies
- |                     |                       |
|---------------------|-----------------------|
| //ʔanapoohkyʔkaa.// | go have his hair cut! |
| /ʔanapoohkykaa./    |                       |
| //ʔapuh~nikiʔhti.// | came to see it.       |
| /ʔapunikihti./      |                       |

227. The special glottal stop morphophoneme //ʔ// occurs in many free noun roots (318) and several suffixes, three of which have only //ʔ// as their morphophonemic representation, another of which has an allomorph consisting only of //ʔ//. //ʔ// occurs finally in all morphs containing it. The noun roots ending in //ʔ// belong to a limited number of semantic categories (but not all members of these categories end in //ʔ//), namely: (1) kinship terms (some of which have freely varying allomorphs differing by presence or absence of final //ʔ//; (2) personal names (both native and introduced); (3) other terms which refer to various types of people; (4) non-human animals; (5) plants, foods derived from plants, parts of plants (as seeds) used for food; (6) artifacts introduced by European culture, plus //ʔoonoʔ// 'gold'. The suffixes containing //ʔ// are the affectives //oiʔ// and //kitaʔ// (335), the limited noun suffix //ʔ// (331b), the allomorph //piʔ// of the absolutive suffix (333), the agentive suffixes //ntyʔ// and //ʔ// (319a), the nominalizing suffixes //h..ʔ// (319b) and //hnaʔ// (319c), the nut suffix //ʔ// (332), and the allomorphs //h..ʔ// and //ʔ// of the place suffix (334).

Sequences of the type //Vʔ// have the phonemic representations /V/, /Vʔ/, /VʔV/, depending on the morphophonemic environment in which they occur. In the last of these, the two vowels are identical, i.e. the second is predictable.

The special glottal stop morphophoneme //ʔ// is necessary since there are morphophonemic sequences //Vʔ// which are always represented phonemically by /Vʔ/ (e.g. internally in a number of noun and verb roots, and finally in allomorphs of some prefixes), and there are morphophonemic sequences of the type //VʔV// (with both vowels the same), always represented by /VʔV/, occurring, among other places, finally in some noun roots, e.g. //natoʔo// 'shirt', //kutuʔu// 'stick'.

//kutuʔu.//	/kutuʔu./	stick.
//kutuʔuhciʔ.//	/kutuʔuhciʔi./	stick-diminutive.
//kutuʔuNa.//	/kutuʔuna./	stick-obj.
//ʔaahmuʔ.//	/ʔaahmuʔu./	boss.
//ʔaahmuʔhciʔ.//	/ʔaahmuʔhciʔi./	boss-dim.
//ʔaahmuʔNa.//	/ʔaahmuʔaa./	boss-obj.

The statements defining the phonemic representation of //ʔ// are given below.

- a. ʔ//V<sub>1</sub>(h)-ʔ\*/ʔV<sub>1</sub>      \*except where 227b applies
- |                                    |                        |
|------------------------------------|------------------------|
| //kitiiʔ.//                        | oat.                   |
| /kitiiʔi./                         |                        |
| //ʔynyʔ+kihmahti.//                | A white-man is coming. |
| /ʔynyʔy+kihmahti./                 |                        |
| //Rhtuwahpiʔ+Rhnaahnaʔwaacityh̃.// | the children are       |
| /tuhtuwahpiʔi+nahnahnaʔwaacityhy./ | hiding from each       |
|                                    | other. (241, 225a)     |



- //typah'.///                      piñon nuts.  
/typa'a./
- b. ' //-+°/°                      of. 238.  
//°i pohso' + °a puh ~ni hti//    my partner sees it  
/°ipohso'+°apunihti/                      (224a, 251)
- c. ' //V<sub>1</sub>(h)-(~)C\*V/°V<sub>1</sub>    \*any //O// except //° N//  
//tahqahti'pY.//                      sourberry bush.  
/tahqahti'ipy./                      (332)  
//°yny'~nihtu.//                      like a white-man  
/°yny°ynihtu./                      (396b)  
//qanaaqa'my.//                      Negroes.  
/qanaaqa°awy./                      (216o)  
//tunah'hoi//                      with pine nuts  
/tuna°ahoi/                      (223b)
- d. ' //V<sub>1</sub>-(~)hC\*/°V<sub>1</sub>            C\* any //C// except //T//  
//mahsihkaata'~hmañtukuñ.//    into the handkerchief.  
/mahsihkaata°ahmahtukuhu./    (226, 348a, 396b)  
//°yny°hsy°yñ.//                      only a white-man.  
/°yny°yhsy°yhy./
- e. ' //-hT/ø  
//kitii'hoi'.///                      oat-diminutive.  
/kitiihoi°i./  
//Rhhyhpi'hei'hqo°jo.//              darn old women.  
/hyhyhpihcihqo°jo./                      (223a, 335)

- f. ' //- (~) ? / ø
- |                         |                      |
|-------------------------|----------------------|
| //ʔahnapaatateʔihnuñ.// | church. (421b, 387a, |
| /ʔahnapaatateʔihnuhu./  | 319a, 225a)          |
| //qahnihpaahnaʔiht1.//  | (bell) rings.        |
| /qahnihpaahnaʔiht1./    | (387a)               |
- g. ' //- N / ? (217a)
- |                   |                |
|-------------------|----------------|
| //kiti1ʔNa.//     | cat-obj.       |
| /kiti1ʔaa./       |                |
| //RhtuwahpiʔNa.// | children-obj.  |
| /tuhtuwahpiʔaa./  |                |
| //ʔynyʔNa.//      | white-man-obj. |
| /ʔynyʔaa./        |                |
- h. ' //- y / ø (331a)
- |                   |                   |
|-------------------|-------------------|
| //ʔynyʔy~nihtu.// | strange, fearful. |
| /ʔynyynihtu./     |                   |

(The morphemic sequence <ʔynyʔ y> furnishes the only known instance of //ʔ// followed by //V//.)

### 230 Vowel Morphophonemics

230. The class of vowel morphophonemes comprises one member corresponding to each of the vowel phonemes, plus two others: //ū Y//. Except where specified otherwise by

the statements of 231-239, each vowel morphophoneme is represented phonemically by its corresponding phoneme.

231. /u/ does not occur after syllables whose vocalic nucleus is /o/ or /oo/ except in the representations of a very limited number of morphemes. For these morphemes, //ū// is set up. The general case is covered by 231a.

a. u//o<sup>x</sup>-/o

//wahahtu//	two
/wahahtu/	
//syywanohtu//	ten
/syywanohto/	
//pa noo °i htuha tyñ.//	(dim.) hauling water
/panoo°ihtuhatyhy./	(somewhere else).
//pa noo htuha tyñ .//	hauling water (some-
/panohtohatyhy./	where else).
//pa noo hu htuha tyñ .//	hauling water (brief-
/panochohtohatyhy./	ly somewhere else).

b. ū/--/u

//ū// has been found in only three morphs: //jūhu// 'fat', //hmūhsu// 'almost, nearly', //wūh// (locative suffix occurring in some place names).

//°a nohi toh jūhu wii hky' hti// made it very  
/°anohitohtuhuwiihkyhti/ greasy (214a, 226b)

//na to<sup>o</sup> noo hm̄hsu<sup>o</sup>i hti// was almost carried  
 /nato<sup>o</sup>noohmuhsu<sup>o</sup>ihti/ away (by the current)  
 //poonono w̄h tyñ .// (a place name)  
 /poononowuhtyhy./ (225a)

232. The morphophoneme //Y// occurs finally in some nominal suffixes and noun roots. It is always preceded by //p//.

- a. YN//--/yn.a (217b)  
 //wynyh pY Na// tree-obj.  
 /wynyhpyna/~ /wynyhpaa/
- b. Y//--<sup>\*</sup>/y \*except where 232a applies  
 //wynyhpY.// tree.  
 /wynyhpY./

233. yñN//--/a (217c, 225m)  
 //mija tyñ Na// going-obj.  
 /mijataa/

234. The sequence //ae// occurs where a morph ending in //a// is followed by the morph //eñ//, an allomorph of <hti> vIN 'neutral tense'. The sequence //eee// occurs when //htee//, representing <htee> vVf (377b), is followed by //eñ//. This situation makes necessary the following statements:

- a. a// $\bar{e}$ /ø  
 //pa noo htuha eñ .// hauled water (somewhere  
 /panoohtohehe./ else). (231a)
- b. a// $\bar{ae}$ /e? (i.e. aa// $\bar{e}$ /e?)  
 //pa noo kaa eñ .// went to haul water.  
 /panooqe<sup>o</sup>ehe./ (211a, 234a, 225a)
- c. e// $\bar{e}$ -e/?  
 //<sup>o</sup>a oee htee eñ .// held it for a while.  
 /<sup>o</sup>aceehte<sup>o</sup>ehe./

235. The morpheme <~i> vV~ (371b), which occurs only after three verb roots, makes necessary the following statement:

- a// $\bar{\sim}$ i/ø
- |                                   |                 |
|-----------------------------------|-----------------|
| //jatuha hti//                    | talked          |
| /jatuhahti/                       |                 |
| // <sup>o</sup> a jatuha ~i hti// | talked to him   |
| / <sup>o</sup> ajatuhihti/        |                 |
| //jaqa hti//                      | oried           |
| /jaqahti/                         |                 |
| // <sup>o</sup> a jaqa ~i hti//   | oried at it     |
| / <sup>o</sup> ajakihiti/         |                 |
| //ta pyha hti//                   | day is breaking |
| /tapyhahti/                       |                 |

//<sup>o</sup>a suh ta pyha ~i hti// understands it  
 /<sup>o</sup>ahsuhtapyhihti/ (221a)

236. One morph, representing <~ai> (E) (392a), is set up as beginning with //~// to account for the forms given in the examples below.

- a. y<sup>o</sup>y//~~/ø  
 //<sup>o</sup>yoy<sup>o</sup>y ~ai// (exclamation of pain  
 /<sup>o</sup>ycai/ resulting from cold)  
 //<sup>o</sup>yty<sup>o</sup>y ~ai// (exclamation of pain  
 /<sup>o</sup>ytai/ resulting from heat)
- b. y<sup>i</sup>//~~/ø  
 //<sup>o</sup>yny<sup>i</sup> ~ai// (exclamation of fear of or  
 /<sup>o</sup>ynai/ wonder at something strange  
 or fearful)

237. //V// which is preceded by //ht//, //hk//, or //hp// and followed by //+// or //.// is sometimes represented by /ø/, sometimes by its corresponding vowel phoneme (or by /o/ if 231a applies), according to the following conditions:

- a. When preceded by //ht// or //hk// and followed by //.// which is followed by //T// without an intervening #, it is usually, but not always, represented by /ø/. (Such sequences of morphophonemes occur only occasionally, due to the

rarity of the combination of morphs necessary to bring them about, so that an extensive body of texts must be examined in order to arrive at a complete statement.) In an examination of fifty minutes of tape-recorded text, only one example was found of //hkV.T//, namely //hku.q//, and the //V// was represented by /ø/:

//wahahku.qatu?u~po?o//           ...two-obj. But not...

/wahahk.qatu?upo?o/

It may well be the case that V//hk-.T// is represented by /ø/ only for //T// = //k// or //q//, and it is also possible that there is free variation even in this environment, with /V/ occurring in some instances. In the case of //t//, examples were found, in the same portion of texts, in which the stop morphophoneme following the //.// was any of the following: //t// (three examples), //p// (one example), //q// (three examples). In all of these examples except one of those involving //q//, the //V// was represented by /ø/. The one exception is:

//?aoaa~nihtu.qatu?u//           ...bad. Not...

/?acaanihtu.qatu?u/

The environment in which the //V// in question appears is practically identical to that in which it appears in another example, in which it is represented by /ø/:

//nahsy?myhtu.qatu?u//           ...all. Not...

/nahsy?myht.qatu?u

We must therefore assume free variation in this environment, but there is some indication that / $\phi$ / is the more frequent representation. Where the stop following the //./ is //p// or //t//, there is also the likelihood that the representation might be /V/ rather than / $\phi$ /, since the examples are too few to allow a definite conclusion. It seems likely that / $\phi$ / is the more frequent representation also when the following stop is //c//, //k//, //kw//, or //qw//, though none of these occurred in the position in question in the material examined. No example occurred in which any stop other than //t k// occurred preceding the //V// in sequences of the type //hTV.T//, because of the rarity of other stops in this position in morphemes which occur freely before //./; but we may judge that / $\phi$ / is a frequent, if not the usual, representation of the //V// in these sequences, when they do occur, except when the preceding stop is //kw//, //qw//, or //c//, since the phonemes /kw qw c/ always have a non-stop component following their oral closure.

b. When preceded by //ht//, //hk//, or //hp// and followed by //./ or //+// which is followed by //m// without an intervening #, //V// is represented sometimes by /V/, sometimes by / $\phi$ /, the two representations being in free variation, as follows: /V/ is the more frequent representation after //k//, / $\phi$ / the more common after //p//, with /V/ and / $\phi$ / having approximately equal frequency after //t//.



//hiihpy+mahu+//	what (is) that...
/hiihp+mahu+//	(161)
//+°asuhtapyha~ituwahpy.mahu//	...could understand it.
/°ahsuhtapyhituwahp.mahu/	That...(221a, 235)
//+°apuh~nihkwahti+mowahuhsu.//	...will see him
/°apunihkwaht+mowahuhsu./	tomorrow.
//°asuhpihtahti+maahnokuhũ+##//	...thought of him who
/°asuhpihtahti+maahnohqohoho+##/	was there... (221a,
	211b, 231a, 225g, 252)

c. When preceded by //ht// and followed by //+// or //./ which is followed by //n// without intervening #, //V// may be represented by /V/ or by /ø/. The two representations are again in free variation, with /V/ being more frequent. (When this //V// is represented by /ø/, the /t/ is nasally released.)

//°inehti+nyyhkwa'./	we said.
/°inehti+nyyhkwaha./-./°ineht+nyyhkwaha./	(226)

d. When preceded by //ht// or //hp// and followed by //./ or //+// which is followed by #, //V// is represented sometimes by /V/, sometimes by /ø/, as follows:

(1) When the preceding stop is //p//, there is free variation between /V/ and /ø/, the former occurring nearly twice as frequently as the latter.

(2) When the preceding stop is //t//, the representation of //V// under these conditions is as follows:

(a) The sequence //iht<sub>i</sub>.#// (with or without suprasegmental phonemes, which were found to play no significant role in this respect) is almost always represented by /iht.#/. In 26 examples of this morphophonemic sequence found in the 50 minutes of text examined, only one was represented by /iht<sub>i</sub>.#/.

(b) In the sequence //yht<sub>i</sub>.#//, /i/ and /ø/ occur with approximately equal frequency as the representations of //i//.

(c) In the sequence //eht<sub>i</sub>.#//, /ø/ is much more frequent than /i/ as the representation of //i//.

(d) In the sequence //aht<sub>i</sub>.#// the two representations have approximately equal frequency.

(e) For the sequence //oht<sub>i</sub>.#// there are only two examples, both having /i/ as the representation of //i//. (The great frequency of examples of the sequence //ht<sub>i</sub>.// is due to the frequency with which the actual tense morpheme <ht<sub>i</sub>> occurs as the final morpheme of a sentence.)

(f) For other situations, there are not enough examples to allow a statement of relative frequencies. Where //+// is the juncture involved, the relative frequencies of /V/ and /ø/ are probably about the

same as in the case of //./, but too few examples occur to permit a definite statement. Where the //V// is other than //i// (and not considering here what vowel precedes the //ht//), the two representations seem to occur with about equal frequency.

e. In situations other than those described in a-d, V//hT-+// and V//hT-./ are always or nearly always represented by /V/.

For all these situations, and those described above, in which /ø/, if it occurs as the representation of //V//, is in free variation with /V/, the /V/ representation is taken as the standard one (even though it is not the more frequent in some environments). The standard representation (i.e. with //V// represented by /V/) is used in general in examples cited throughout this grammar.

238. V//<sup>o</sup>-+<sup>o</sup>/ø

//nyytihp<sup>o</sup>o+qatu<sup>o</sup>u+apuhtapyha<sup>~</sup>i<sup>o</sup>ihti.//

/nyytihp<sup>o</sup>o+qatu<sup>o</sup>+<sup>o</sup>apuhtapyhi<sup>o</sup>ihti./ (235)

But I don't see it.

239. a. V//<sup>o</sup>n-+n/ø

//caiq<sup>o</sup>no + no napi tyñ .// bluejay sitting on

/caiq<sup>o</sup>n+nohapityhy./ its eggs. (225a)

//ʔaahpaʔni + niɦ copa hma// apples which we have  
/ʔaahpaʔn+niɦcoopahna/ picked up

b. V//ʔn-+·n/∅

//caiqoʔno+nyqope~weeh+johcihti.//

/caiqoʔn·nyqopewee+johcihti./ (253, 251, 224b)

A bluejay flew in  
front of me.

#### 240 Reduplication

240. Each of the reduplicative morphophonemes //R R// occurs in the representations of a single morpheme. The morphemes involved are <Rh> Pd 'distributive' (382) and <Rhi> vVr 'durative' (371d).

↳ pg 263

241. R//-(H)C<sub>1</sub>V<sub>1</sub>/C<sub>1</sub>V<sub>1</sub>

//Rpojoha//

to run distributively

/popojoha/

//Rh pa ʔooh pY .//

pebbles here and

/pahpaʔoohpy./

there.

242. R//C<sub>1</sub>V<sub>1</sub>(H)-/C<sub>1</sub>V<sub>1</sub>

//qwaca Rhi hti//

fell a long distance

/qwacacahinti/

//kwipi R h..ki hti//

shook/shivered

/kwipihpikihti/

(204e)

250 Juncture Morphophonemics

250. The class of juncture morphophonemes includes one member corresponding to each of the juncture phonemes, plus //~//. Each of the juncture morphophonemes occurs (by itself) as the representation of a morpheme (396-398), and //~// occurs in combination with other morphophonemes in some morphs. One or more of the junctures is a significant factor in the environment for the following morphophonemic statements: 211d; 215a, c; 216b; 224a, b, d; 225a-j; 226a; 227a, b; 235; 236; 237; 238; 239; 253.

As far as is known, each of the juncture morphophonemes is represented phonemically by its corresponding phoneme except as specified below.

251. ~//--/ø

(numerous examples in preceding sections)

252. +//h-C/ø (225g-i)

//no pih ~ pa<sup>o</sup>añ + qahty hti .// sat on top of/nopipa<sup>o</sup>ahqahtyhti./

the house. (224a, 2251)

//Rh nah pih nañ + mija qoi tyñ .// going after

/nahnahpihnañmijaqoityhy./ one another. (241)

//kihma hkwañ + wahkihta .// come ye hither!

/kihmahqwawahkihta./ (212, 225h)

253. +//·-·/ø (//·// occurs only after //+// 397)

//ny mahmañ + · cipuhihti// climbed on me

/nywahmah·cipuhihti/ (216a, 225d)

## CHAPTER THREE

### MORPHEME CLASSES

301. This chapter gives a rough classification of the morphemes according to their distribution and describes the morphophonemic representations of the morphemes listed. The breakdown of the inventory of morphemes into classes is by no means intended to be complete, or even nearly complete; there are minor differences in the distribution of members of the same class of the present classification. Thus the classification, with the statements of morpheme arrangements of Chapter Four, is not intended to enable the reader to synthesize Northfork utterances (though many correct utterances can be synthesized on the basis of the information given), but is intended merely to account for utterances which occur in the corpus.

302. The distributional properties of the various morphemes, in so far as they are described, are indicated by distribution-class labels (303) (with occasional additional statements), and are defined on the basis of the forms with which they occur in immediate constituency, and the distribution of the respective constituents. The terms 'prefix',

'suffix', 'root' are used, where convenient in facilitating discussion, not as defining terms but as handy descriptive labels for certain forms which are similar to forms of other languages traditionally referred to by these labels. (The defining terms are the morpheme-class labels.) Thus there are instances in which forms called 'prefixes' are followed directly by forms called 'suffixes' with no intervening 'roots' (Pp can be followed by nQ1).

The groupings of the morpheme classes into larger sets, such as "nominal elements" (310), "substantival suffixes" (320), etc., are made largely for purposes of convenience of organization, and do not necessarily reflect fundamental differences and similarities in distributional properties.

303. The morpheme class labels are listed in 303a. They serve as basic indications of distributional properties. Modifications of these symbols are described in 303b-f.

a. In the list of class labels below, brief notes suggesting the defining characteristics of the classes represented by each are followed by references to the places in this chapter where the classes are treated.

Nominal Elements 310

type 'Nb'	occur with Pb	311
Nbb	constitute occurs with Pb	311a
Nbr	constitutes are Nr	311b



Nbf	constitutes are Nf	311c
Nu	occur with <pono> nU	312
Nt, Ntn, Hn	occur with nNt and/or nNn	313
Nc	"cranberry morphemes"	314a
Nx	<tohpo>	314b
Nw	occur with <wano> nT	315
Nr	restricted noun roots	316
Nl	place names	317
Nf	free noun roots	318
vNr, vNf	deverbative nominalizing suffixes	319a
qN, lN	nominalizing suffixes occurring with Q, L	319b
qoN	<hpY> (occurring with <cyhkwyta> Qo)	319c
lN	nominalizing suffix occurring with I	319d
hNr	nominalizing suffix occurring with H	319e
uNf	<, , ~> (occurring with <°ahcaono> U)	319f
Pronominal Elements		<u>320</u>
Pp	personal pronominal morphemes	321a
Pr	reflexive pronominal morpheme	321b
pp, nNp	personal pronominal plural	322
pN	personal and reflexive pronoun base	323
Pt	indefinite verbal object	324
D	demonstrative morphemes	325
dN	demonstrative base	326
H	interrogative-indefinite pronominal morpheme	327

hN interrogative-indefinite pronoun base 328

o <hka> 329

Substantival Suffixes 330

limited noun suffixes 331

nNx <h..>, <y>, <x>, <'nukcu'> 331a

nN' <'> 331b

nNe <hco'o> 331c

nNj <ja> 331d

nNt tree suffix 332

nNn nut suffix 332

nNf absolute suffix 333

nNl place name suffix 334

nNh affective suffixes 335

nNm animate plural suffix 336

nO <Na> 'obj.' 337a

hO <ihmaa>, <eehti> 337b

Locative Elements 340

(Kt), (Kh), (Km) components of K 341

K occurs with <hnahqweh> kL 342

pK <qwaa> 343a

x <tyh> 343b

(pL) <qope>, <kwita>, <kywa> 343c

(pK) <naah> 344

(L) <typihi> 345

kL <hnahqweh> 346

L	locatives	347a, b
pL	occur with Pp (set 2)	347b
nL	occur with noun stems, Pp, L	348a
dL	occur with D	348b
xL	<nañ>	348c

Miscellaneous Adverbial Elements		<u>350</u>
(Qn)	<naa>, <taah>, <wooh>	351a
qQn	<mano>	351b
Qn-	<hyy>	351c
Ql-	<°ino>, <tapaa>, <syta>	352
(-A)	<'>	353a
hA	<ihno°o>	353b
Qn	quantitatives	354a
Ql	qualitatives	354b
Qc	<cyhkwyta>	354c
nQl	qualitativizing suffixes	355
T-	occur with <hsu> (T)	356a
t	<°uhsu>	356b
(T)	<hsu>	356c
T	temporals	357
nT	temporalizing suffix occurring with Nw	358a
vT	temporalizing suffixes occurring with Vi	358b
qT	temporalizing suffixes occurring with Qn	358c
Aq	<qatu°u>	359a
Am	<mino°o>	359b

Verbal Elements 360

- nU <pono> 361a  
 (U) <pata> 361b  
 -U occur with preceding (U) 361c  
 U- <sihki> 361d  
 pU <cimyty> 361e  
 U occur with uV 361f
- morphemes occurring with vVr 362
- V<sup>o</sup>a occur with <<sup>o</sup>i>, constitutes are vVa 362a  
 V<sup>o</sup>x occur with <<sup>o</sup>i>, constitute is Vx 362b  
 Vr occur with <Rhi> 362c  
 Vr<sup>o</sup> occur with <Rhi> or <<sup>o</sup>i> 362d  
 V<sup>o</sup>t occur with <<sup>o</sup>i>, constitute is Vt 362e
- Vx occur only with Pi 363  
 Vi intransitive 364  
 Vt transitive 365  
 Vtt double-transitive 366
- nVi, nVt verbalizing suffixes occurring with N 367a  
 uV verbalizing suffixes occurring with U 367b  
 iV verbalizing suffix occurring with I 367c  
 pV <ni> 367d

Verbal Suffixes 370

- limited verbal suffixes 371
- vVi <i>, <h..> 371a  
 vV<sup>~</sup> <~i> 371b

vVtt	<ˀa..>	371o
vVr	<ʁhi>, <ˀi>	371d
vVt	<hky>	372a
vVw	<wi>	372b
vVp	<ˀ..ki>, <hpaˀi>	373a
vtV	<ta>	373b
vVa	auxiliaries	374
vVb	<hu>	375a
vVc	<poto>, <jaˀwi>, <nawi>	375b
vVd	<qoi>, <ˀo>	375c
vVe	<ˀi>, <ˀawi>	375d
vWk	<hku>	376
vv	component of vVf	377a
vVf	directionals	377b
vVg	<hkwa>, <hmaa>, <tuwa>	378
vWw	<waih>	379a
vIN	<hti>, <hpy>	379b
vIM	<hnaˀi>	379c

Prefixes (other than pronominal) 380

Pq	<qaha>	381
Pd	<Rh>	382
Pn	<nohi>	383
pPa	<mi>	384a

✓ R-

Pa	adverbial prefixes	384b
Pb	nominal prefixes	385
Pi	instrumental prefixes	386

Minor Classes 390

I	imitatives	391
(E)	component of E	392a
E	interjections	392b
hC	<hni°i>	393a
C, Ce	conjunctions	393b
op	<sahqwa>	394
F	postfixes	395
	tactic junctures	396
	<h>	396a
	<°>	396b
	<+>	396c
X	<·>	397
Z	<.>	398

b. The members of Nr (monomorphemic and polymorphemic) occur in immediate constituency with <pi> nNf, the absolutive suffix (333), and/or with members of Pp (321a, 421, 423). The details are given in parentheses following the class symbol Nr, when these forms are cited, as follows:

(1) P indicates that the form occurs with Pp, e.g. <nahqa> Nr(P) 'ear'.

(2) If the form occurs with  $\langle pi \rangle$  nNf, the allomorph of  $\langle pi \rangle$  nNf which occurs with it is indicated, e.g.  $\langle toja \rangle$  Nr(pi) 'mountain',  $\langle pohina \rangle$  Nr(P,pe) 'chief' (i.e.  $\langle pohina \rangle$  occurs with Pp or with the allomorph //pe// of  $\langle pi \rangle$  nNf).

c. In citing members of the class Nl (place names) a further indication of distribution is given in parentheses after the symbol Nl, as explained in 317.

d. A raised plus sign ( $^+$ ) accompanying a distribution-class symbol (e.g.  $Pb^+$ ) indicates that the form in question has certain special distributional properties in addition to those which it shares with other members of that class. This symbol, and those described in 303e, f, are often not used, however, when the special distributional properties are specified in the statements of constructions given in Chapter Four.

e. A raised minus sign ( $^-$ ) accompanying a distribution-class symbol indicates that the form in question has more limited distribution than other members of that class.

f. A raised  $x$  accompanying a distribution-class symbol, e.g.  $\langle ?a \rangle Pp^x$  'third person' (321a), indicates that the form in question does not occur in some types of environments in which other members of the class occur, but does occur in some environments from which other members are excluded.

g. The symbol  $N'$  is used to designate the class consisting of  $N_r + N_f$  (monomorphemic and polymorphemic) except those members of  $N_f$  which are constituents of the constructions of 416.

h. The symbol  $N$  designates the class consisting of  $N_f$  (monomorphemic and polymorphemic) plus the following classes of composite forms which are defined in Chapter Four:  $N_q$ ,  $N_p$ ,  $N_d$ ,  $N_h$ .

i. The symbol  $V$  is used as a cover symbol for  $V_i$ ,  $V_t$ , and  $V_{tt}$  (monomorphemic members and composite forms).

304. The following notational devices are used in this chapter (other than those used for indicating distribution which are described above):

a. In the lists of members of the various classes, the convention for citation of morphemes described in 1d is departed from as follows:

(1) The "morphemic brackets"  $\langle \rangle$  are not used for morphemes having a single morph. The brackets are used only for those with allomorphs, and the allomorphs are listed and enclosed in  $// //$ .

(2) The meanings are given without being enclosed in ' '.



b. Composite forms are cited in a manner similar to that used for single morphemes. The distribution-class symbols and indications of meaning are those of the composite forms taken as units. Enclosed in < > are the fundamental symbolizations of each of the morphemes, in the order in which they occur, separated by spaces wherever necessary for the sake of clarity. For example, the sequence consisting of <nohi> Pn 'very' followed by <cawu> Ql 'good' is written <nohi cawu> Ql 'very good'.

When composite forms are given as examples, the meanings are given without enclosure in ' ', and the morphemic brackets < > are omitted if the symbolization which would be included in them coincides with the morphophonemic representation. Otherwise, the morphophonemic representation (identified by enclosure in // //) is given.

c. Any other deviations from standard practice (ld), or from the conventions indicated above, should be clear from the context in which they occur.

d. Statements concerning immediate constituency will be abbreviated as follows:

IC - immediate constituent

ICs. - immediate constituents

occur in IC with - occur in immediate constituency with

310 Nominal Elements

310. Included in the nominal elements are two very large classes, the "restricted noun roots" Nr (316) and the "free noun roots" Nf (318). There are also several smaller classes (given in 311-315 and 317) consisting of either (1) morphemes similar in distribution to members of Nf or Nr, or (2) morphemes of limited distribution which occur as components of polymorphemic members of Nf or Nr. Nominalizing affixes are given in 319.

311. The classes of the type 'Nb' consist of noun roots which occur in immediate constituency with Pb (385). Three classes are distinguished, according to the distribution of the constitutes.

a. Nbb. Constitute occurs in IC with Pb (385). There appears to be but one member in this class.

hkwi Nbb (fish) only with <pa> Pb 'water'

pahkwi Nbr, Nf fish as Nbr, occurs with <mah> Pb  
'hand, arm'

mahpahkwi Nr(P) flesh of forearm: "arm-fish"

(303b)

b. Nbr. Constitute is Nr like noun roots of 316.

With <kuh> Pb 'fire, heat':

kuh<sup>h</sup> Nbr (smoke)

kuh kuh<sup>h</sup> Nr(pe) smoke

jūhu Nbr, Nr(pi) fat

kuh jūhu Nr(pi) soot (214a, 231b)

With <pa> Pb 'water, moisture':

°oo<sup>h</sup> Nbr (pebbles, etc.)

pa°oo<sup>h</sup> Nr(pY) pebbles, gravel, or rocks which  
have been made smooth by running water

h<sup>s</sup>iwah Nbr (sand)

pa<sup>h</sup>siwah Nr(pY) sand

waha Nbr (meadow)

pa<sup>h</sup>waha Nr(pY) meadow

joqa Nbr, Nr(pY) nasal mucous, slime

pa<sup>h</sup>joqa Nr(pY) the slimy green substance which  
appears in standing water

puhi Nbr, Nu blue, green

pa<sup>h</sup>puhi Nr(pY) grass (see also 312)

oo<sup>o</sup> Nbr (moss)

pa<sup>o</sup>oo Nr(pY) moss

With <tyh> //tyh//, //tah// Pb 'rock':

tah<sup>s</sup>i°a Nbr (sp. rock)

tyhtah<sup>s</sup>i°a Nr(pi) sp. rock (pale green to tur-  
quoise in color, sometimes used for arrow-  
heads)

qah Nbr (obsidian)

//tahqah// Nr(pi) obsidian

hanii Nbr (sp. rock)

tyhhanii Nr(pY) sp. rock (looks like granite,  
but is soft, crumbles) (223a)

<paha> Nbr, Nf (bedrock mortar), pestle when oc-  
curring as Nf, has the allomorph //paha//  
and the alloseme 'pestle'; when occurring  
as Nbr, has the allomorph //pahaa// and  
the alloseme '(bedrock mortar)'

//tyhpahaa// Er(pY) bedrock mortar

With <ty> Pb 'earth':

pooch Nbr (land etc.)

typooch Nr(pY) land, earth, place

caqa Nbr (clay)

tycaqa Nr(pY) clay

With <ta> Pb 'sun, heavenly body'

my<sup>o</sup>a Nbr<sup>+</sup> moon, month

tamy<sup>o</sup>a Nr(ta) moon, month (216a, 416b) occurs  
also in names of some months as second  
member of compound.

oinuh Nbr (star)

taoinuh Nr(pe) star

pe Nbr<sup>x</sup> (sun, day)

tape Nr(ta) sun, day (416b)

With <no> Pb egg, dwelling:

jo (egg)

nojo Nr(P,pi) egg (excepting roe)

°a (roe)

no°a Nr(P,pY) roe

hypi (yolk)

nohypi Nr(P) yolk alternates freely with

//hypinojo// Nr(P)

°aahpy (afterbirth)

no°aahpy Nr(P) afterbirth

With <coh> Pb 'head':

piki (brains)

coh-piki Nr(P) brains

With <puh> Pb 'eyes':

~tuhsi (eyelashes)

puh~tuhsi Nr(P) eyelashes

tahqaa (eyebrows)

puhtahqaa Nr(P) eyebrows

With <mah> Pb 'hand, arm':

kiipy Nbr (elbow)

mahkiipy Nr(P) elbow

With <tah> //tah//, //toh// Pb 'foot, leg':

nopoto Nbr,Vi (knee)

//tohnopoto// Nr(P),Vi knee as Vi, 'to sit

with legs curled up'

With <mah> Pb 'hand, arm' and <tah> Pb 'leg, foot':

ʔwicoqo (wrist, ankle)

mahʔwicoqo Nr(P) wrist (223a)

tahʔwicoqo Nr(P) ankle

ʔowa (astragalus)

mahʔowa Nr(P) protruding knob of wrist bone

tahʔowa Nr(P) astragalus

peta (palm, sole)

mahpeta Nr(P) palm

tahpeta Nr(P) sole

toqo (thumb)

mahtoqo Nr(P) thumb

tahtoqo Nr(P) big toe

piicyky (little finger, toe)

mahpiicyky Nr(P) little finger

tahpiicyky Nr(P) little toe

tahna (knuckles)

mahtahna Nr(P) knuckles

tahtahna Nr(P) toe-joints

situ (claws)

mahsitu Nr(P) fingernails

tahsitu Nr(P) toenails

With <ty>, <puh>, <mah>, and <pih> Pb 'buttocks, back',

<auh> Pb 'nose':

<pih> //pih//, //si//, //˘ja//, //qo//, etc.,

Nbr, Nbf 'empty noun root' (See also 311c)

//ty pih// Nr(pY) dirt, ground, earth

//puh si// Nr(P) eye(s)

//mah ˘ja// Nr(P,pi) hand, glove

//˘ahnaja// Nf his hand(s), his glove(s)

//majapi// Nf glove(s)

//pih qo// Nr(P) buttocks, lower part of back

mu pih Nr(P) nose

c. Nbf. Members of Nbf occur in IC with Pb, the constituents being Nf.

With <kuh> Pb 'fire, heat':

˘nah Nbf (fuel, wood)

kuh˘nah Nf fuel, wood (224a)

With <pa> Pb 'water, moisture':

˘owaa' Nbf, Nf˘, I (baby)

pa˘owaa' water-baby (317e)

hsakyh Nbf (bridge)

pahsakyh Nf bridge

oo'oo Nbf (spring)

pacoo'oo Nf spring

hsoojona Nbf

pahsoojona Nf depressions formed in rock by

running water

//toqowa// <toqohqwa> Nf,Nbf rattlesnake, snake

//pahtoqowa// Nf water snake

With more than one member of Pb:

<pih>//pih//, //so//, //~ja//, etc. Nbf,Nbr 'empty  
noun root' (see also 311b)

<kuh pih> //qohso// Nf fire, match (385)

<pa pih> //pa ~ja// Nf water

<tyh pih> //tyhpih// Nf rock

<no pih> //nopih// Nf house

312. Nu. This class comprises the forms which occur in IC with <pono> nU (361a) which in turn occurs only in IC with members of this class. Some of the members of Nu occur also in IC with other morphemes besides <pono> nU, and in most of these other constructions they are tactically equivalent to noun roots of other classes. With one exception (see 319f), the forms consisting of a member of Nu followed by <pono> nU occur only in IC with one of the three verbal elements uV (367b).

tohoi Nu white

<tohci pono> //tohci taja// U white

<tohci tyh pih> //tohci htyh pih// Nf white rock

(311c, 385)

ʔahqa Nu red

<ʔahqa pono> //ʔahqa pana// U red

<ʔahqa h qoʔjo> //ʔahqahqoʔjo// Nf strawberries (335)



<tuhmu> Nu black when followed by <pono> nU, has the allomorph //tuhmu//; when followed by <tyh pih> Nf 'rock' (311c), has the allomorph //tuhu//.

<tuhmu pono> //tuhmu ʔani// U black

<tuhmu tyh pih> //tuhu htyh pih// Nf black rock

(385)

puhi Nu, Nbr blue/green the combination <puhi tuwa> Vi

(367a) has the portmanteau seme 'to be green'

(literally: 'to become blue')

<puhi pono> //puhipono// U blue

<puhi tuwa> //puhituwa// Vi to be green

<pa puhi> //papuhi// Nr(pY) grass (311b)

<puhi qety> //puhiqety// Nf abalone shell (3181)

<puhi nawahku> //puhihnawahku// Nf 'blue-green

money (beads cut from abalone shell)'

ʔoha Nu yellow, brownish yellow

<ʔoha pono> //ʔohapana// U yellow, brownish yellow

<ʔoha pata> //ʔohahpahta// U turn yellow, brownish

yellow (361b)

ʔahca Nu tan, brown, copper colored

<ʔahca pono> //ʔahcapana// U tan, brown, copper

colored

ʔehsi Nu gray

<ʔehsi pono> //ʔehsipana// U gray

<ʔehsi ja> //ʔehsija// Nr(pY) ashes (331d)

ʔahtyh Nu round

<ʔahtyh pono> //ʔahtyhpono// U round

haky Nu foolish, silly

<haky pono> //hakypono// U foolish, silly occurs  
only with <h..h..ʔ..hka> uV (367b)

toʔoh Nr(P), Nu hole

<toʔoh pono> //toʔoh ~jawa// U have holes (e.g.  
a road)

nahqa Nr(P), Nu ear

<nahqa pono> //nahqacaja// U have long ears (e.g.  
a rabbit)

topo Nu hill

<topo pono> //topocaʔa// U peaked, pointed, having  
the shape of a hill

313. Nt, Ntn, Nn. Morphemes of class Nt occur with <pY> nNt (332), the "tree suffix". Some of them occur also as free noun stems, and thus belong to both Nt and Nf. One morpheme has been found which occurs only with <'> nNn (332), the "nut suffix". This morpheme (313e) constitutes the class Nn. Several other morphemes occur either with <pY> nNt or with <'> nNn; these are classed as Ntn (313d).

a. The following morphemes, among others, belong to both Nf and Nt:

wijah Nf, Nt (black oak) acorn (This is used as the specific term for black oak acorns, and as

the generic term for any type of acorn.

<wajah pY> Nf functions similarly as the term for black oak and the generic term for oaks.)

wjahpY Nf (black) oak

\*ahpohsowa Nf, Nt manzanita berries

\*ahpohsowapY Nf manzanita bush

wojoojno Nf, Nt buckeye

wojoojnopY Nf buckeye tree

\*aahpa\*ni Nf, Nt apple

\*aahpa\*nipY Nf apple tree

\*ahpyhkahci Nf, Nt apricot

\*ahpyhkahcipY Nf apricot tree

piihpihsi Nf, Nt peach

piihtihsipY Nf peach tree

b. The following morphemes, among others, occur only with <pY> nNt, as far as has been determined:

wa\*ah Nt (incense cedar)

wa\*ahpY Nf incense cedar

wohqo Nt (ponderosa pine)

wohqopY Nf ponderosa pine

jepih Nt (lodgepole pine)

jepihpY Nf lodgepole pine

kunuki Nt (elder)

kunikipY Nf elder (Its berries are <hupuhja> Nf

in higher altitudes, <seenowa'> Nf in

lower altitudes.)

syhy Nt (willow)

syhypY Nf willow

ʔahmaahca Nt (tarweed)

ʔahmaahcapY Nf tarweed

c. The two morphemes listed below also occur as members of Nt, but each of them occurs also in a limited construction with a morpheme other than <pY> nNt.

wynyh Nt<sup>+</sup> (tree) occurs also with <~> nVi (367a)

wyhyhpY Nf tree

wynyh<sup>-</sup> Vi (sg.) to stand

sahqwaʔa Nt<sup>+</sup> (fir tree) occurs also with <hnuʔ> vNr<sup>+</sup>

(319a) (which has the allomorph //hnu// when occurring with it)

sahqwaʔapY Nf fir tree (of any species)

//sahqwaʔa hnu// Nf strainer (made of fir branches, used in leaching acorn flour)

d. The following morphemes, among others, occur with <pY> nNt or <'> nNn:

jaqa Ntn (white oak)

jaqapY Nf white oak

jaqa' Nf white oak acorn

oikinu Ntn (live oak)

cikinupY Nf live oak

oikinu' Nf live oak acorn

soto Ntn (water oak)

sotopY Nf water oak

soto' Nf water oak acorn

<caha> Ntn (savannah oak) when occurring with <'> nNn,

has the allomorph //caha//; when occurring

with <pY> nNt, has the allomorph //cahaa//

//cahaapY// Nf savannah oak

//caha'// Nf savannah oak acorn

tapa<sup>o</sup>ja Ntn (gooseberry)

tapa<sup>o</sup>japY Nf gooseberry bush

tapa<sup>o</sup>ja' Nf gooseberry

tunah Ntn (digger pine)

tunahpY Nf digger pine tree

tunah' Nf digger pine nuts (223b)

typah Ntn (piñon)

typahpY Nf piñon pine

typah' piñon nuts (223b)

e. One morpheme has been found which occurs with <'> nNn but not with <pY> nNt.

<qawoqohq(w)a> Hn (nuts...) has freely varying allomorphs //qawoqohqa// ~ //qawoqohqwa//

<qawoqohq(w)a '> Nf nuts of any of the following

pine trees: <wohqo pY> Nf 'ponderosa pine'

(313b), <kuhsi wohqo pY> Nf 'jeffrey pine'

(314a), <jepih pY> Nf 'lodgepole pine' (313b)

314. Described below are two classes containing morphemes of unique distribution.

a. Nc, "cranberry morphemes". Included in this class are a number of morphemes which occur in IC with a following member of Nf. The constitutes are likewise members of Nf. One of the cranberry morphemes occurs with either of two members of Nf; each of the rest is (as far as is known) a unique constituent.

wa'o Nc only with <paqa> Nf 'arrow, bullet':

wa'opaga Nf headless arrow tipped with four small cross-pieces, tied perpendicularly to the shaft, to prevent penetration, used for small game and birds

sai Nc only with <pa hkwi> Nf, Nbr 'fish, trout':

saipahkwi Nf sp. fish (small, found in Owens Valley)

pahsi Nc only with <toqohqwa> Nf 'rattlesnake, snake', which has the allomorph //qohqwa// when preceded by <pahsi> Nc:

//pahsi qohqwa// Nf gopher snake

pahnee Nc only with <typah '> Nf 'piñon pine nuts'

(315d, 332) and <wynyh pY> Nf 'tree' (315c, 332):

pahneetypah' Nf sugar pine nuts (223b)

pahneewynyh pY Nf sugar pine

kuhsi Nc occurs only with <wohqo pY> Nf 'ponderosa  
pine' (315b, 332):

kuhsiwohqopY Nf jeffrey pine

qacih Nc occurs only with <wono> Nf 'conical burden  
basket'

qacihwono Nf conical burden basket, not as closely  
woven as <wono> (213a)

b. Ex. This class contains a single member:

<tohpo> Nx occurs only with <h ci' h ci'> (335); the  
constitute occurs only with <~ ni> nQl 'like'  
(355)

<tohpo h ci' h ci'> Nf~

<tohpo h ci' h ci' ~ ni> Ql 'short'

315. Nw. This class comprises those morphemes which  
occur in IC with <wano> nT, 'time' (358a). The constitutes  
occur as T or as Vi. Two of them occur also with the ab-  
solute suffix, <pi> nNf (333) which has the allomorph //pe//  
when occurring with them. These two constitutes participate  
in a limited way in the distribution of Nf and occur also as  
a special class Na (457). <wano> nT 'time' has the allomorph  
//no// when occurring with <jypa> Nw 'autumn'.

too Nw winter, year (occurs also with <no pih> Nf  
'house')

toowano T,Vi (to be) winter(time)

<too pi> //toope// Nf<sup>-</sup>,Na a winter, a year

toonopih Nf winter-house

ta Nw spring

tawano T,Vi (to be) spring(time)

taca Nw summer

tacawano T,Vi (to be) summer(time)

jypa Nw autumn

//jypa no// T,Vi (to be) autumn(time)

toqa Nw night

toqawano T,Vi (to be) night(time)

//toqape// Nf<sup>-</sup>,Na a night

316. Nr. This is a very large class, which is made up of morphemes other than those included in Nw (315) which occur in IC with the absolutive suffix <pi> nNf (333), or with Pp (321, 421, 423), or with either. The constituents are free noun stems Nf, having distribution similar to that of the monomorphemic members of Nf (318). Many members of Nr occur also in one or more of a variety of additional constructions.

The morphemes listed below represent only a small sample of the members of Nr. Following the class symbol Nr in the designations of the morphemes is an indication in parentheses of the allomorph of <pi> nNf which occurs with each of the morphemes occurring with <pi> nNf; for those which occur with



pronominal prefixes, (P) is given after the class symbol Nr; for those which occur with either pronominal prefix or <pi> nNf, both P and the allomorph of <pi> nNf which occurs are given. Except in special cases, namely <paah> Nr(P,pi)<sup>x</sup> 'blood', <wooh> //wooh// Nr(P,pi)<sup>x</sup> 'head/hair', pronominal prefix and absolutive suffix do not both occur with a noun stem at the same time.

a. Body Parts.

nahqa Nr(P) ear

wooh Nr(P,pi)<sup>x</sup> head, head hair occurs with both Pp  
and <pi> nNf in the meaning 'head hair'

tyhpe Nr(P,pY) mouth

//tyhpepY// Nf a person who talks a lot

°eqo Nr(P) tongue

- tawa Nr(P) tooth

qana Nr(P) beard, whiskers

qope Nr(P) face

kuhta Nr(P) neck

y puhta Nr(P) arm

huhka Nr(P) leg

kyhky Nr(P) foot

sono Nr(P) lungs

piwy Nr(P) heart

nywy Nr(P) liver

qohi Nr(P) stomach.

poel Nr(P), nllh navel (335)

sihi Nr(P) guts

pego Nr(P) penis

tapa Nr(P) testicles

tekwi Nr(P) vagina

ʔoho Nr(P, pY) bone

//ʔohopy// Nf bone; strong person

jūhu Nr(P, pi) fat (231b)

//jūhupi// Nf fat, grease; fat person

paah Nr(P, pi)<sup>x</sup> blood occurs with <pi> nNf and Pp at  
the same time; the suffix does not occur,  
however, in the form <paah ka> Yi 'to bleed'  
(367a)

pyhy Nr(P) skin, hide, fur, body hair

joqa Nr(P, pY), Nbr nasal mucous

//joqapY// Nf person with runny nose

<pa joqa pY> slime (311b)

kyhna Nr(P), nNhh semen (335)

ʔawa Nr(P) horns

qwaci Nr(P) tail

qahsa Nr(P) wing, wing-feathers

b. Relationship terms.

papi' Nr(P) older brother or male cousin (227)

wahna' Nr(P) younger brother or male cousin

hahma' Nr(P) older sister or female cousin

pyhni' Nr(P) younger sister or female cousin

<pohso(')> Nr(P) sibling or cousin of same sex; friend,

partner has freely varying allomorphs

//pohso// ~ //pohso'//.

sawu Nr(P) sibling or cousin of opposite sex

tuwah Nr<sup>x</sup>(P,pi') son, child has allomorphs as follows:

after Pp and not followed by <my> nNm 'pl.'

(336), 'son, son of sibling of same sex, off-

spring of animal'; after Pp and followed by

<my> nNm 'pl.', 'child (of either sex, as kin-

ship term), child of sibling of same sex,

offspring of animal'; before <pi> nNf, 'child

(not as kinship term)'. <pi> nNf has the

allomorph //pi'// only when occurring after

<tuwah> Nr<sup>x</sup>. When both <my> nNm 'pl.' and

<ci'> nNh 'dim.' (335) occur after the com-

bination of <tuwah> Nr<sup>x</sup> with a member of Pp,

<my> nNm precedes <ci'> nNh instead of follow-

ing it as in the normal situation (433a).

ʔi tuwah Nf my son

ʔituwahmy Nf my children

ʔituwahmyhci' Nf my children-dim.

tuwahpi' Nf child

pety Nr(P) daughter, daughter of sibling of same sex

nawa Nr(P) father, father's brother

pija Nr(P) mother, mother's sister

notyhkwa Nr(P) wife, wife's sister, (man's) brother's  
wife

kuwa Nr(P) husband, husband's brother, (woman's)  
sister's husband

ʔihnihpai (P) spouse's sibling of same sex, spouse of  
sibling of same sex (i.e. one who is called  
'wife' or 'husband' but who actually isn't)

<kwyytyñʔ> Nr(P) friend has freely varying allomorphs  
//kwyytyñʔ//~//kwyytyʔ// (225, 227)

tyhmuʔ Nr(P) enemy

tyniʔ Nr(P) master (of a pet)

ʔaahmuʔ Nr(P) boss

c. Miscellaneous.

pohina Nr(P,pe) chief (311b)

nyhtena Nr(P,pY) assistant chief, messenger

toja Nr(pi) mountain

kuhtuhsi Nr(pY) dust

jyyh Nr(pY) level ground

ʔohma Nr(pi) salt (<ʔohma pi> Nf occurs also as a  
masculine name)

nahti Nr(P,pi) belt

qahki Nr(P,pi) beads

317. Nl, place names. Each of the place names generally occurs with a particular member of nL (348a), or with <nañ> xL 'on/at' (348c). An indication of which one of these locative morphemes occurs with each is given in parentheses following the class symbol Nl. The following list represents only a small sample of the members of Nl.

hoojowih Nl(weeh) Cascadel

hoojowihweeh L at Cascadel (213a)

qohnihihna Nl(wū) South Fork

moohnih Nl(nañ) Finegold

po'ohso'one Nl(wū) Farley's ranch

moinanih Nl(hmañ) sp. mountain

318. Nf, "free noun roots". The free or unrestricted noun roots have, in general, a wider distribution than members of any other classes of nominal elements. Except for those members of Nf which have some special limitation on their distribution (these are marked Nf<sup>~</sup>), members of Nf can be distinguished from members of other classes by the following distributional properties (among others): (1) they occur in IC with <Na> nO 'obj.' (337); (2) they occur in IC with nL (348a); (3) they occur with nQ!; (4) they occur preceded and followed by <+> (396c); (5) they occur in IC with <.> (398); (6) they occur in IC with following Vi (364, 460, 470), with intervening <+>. Nf is the largest class of

nominal elements. The examples given below represent only a small sample of the members of the class.

The Northfork Indians have both Indian names and "White-man" names; the latter seem to be in more common use.

a. Personal names, feminine, Indian. (For various reasons whose discussion would be out of place in a purely descriptive treatment such as this, certain partial resemblances which exist among some of these names have not led to morphemic segmentation, although some attempt at segmentation would of course be desirable in historical analysis.) Several of these names have freely varying allomorphs differing by the presence or absence of final //'///. In the symbolizations of these morphemes, ' is given in parentheses, e.g. <?aqoohsati(')> Nf.

<?aqoohsati(')> Nf

hiwaa juni Nf

hypiwyhkywa' Nf

hukaita' Nf

<?ahsuwajahanti(')> Nf

huuhtuni Nf

?aihkuhsu Nf

jukita' Nf

waihmuhsa' Nf

wijuhnu' Nf

tojaty' Nf

wa?na?mahxahti Nf

puhujuni Nf

sawahpono Nf

tojakywa Nf

mo?uhkahsi Nf

poowyhnaï Nf

sijapi Nf

kiwechnehxe Nf

jyhmahawy Nf

moojahqa Nf

tuhupe' Nf

|                   |                            |
|-------------------|----------------------------|
| wa'í' Nf          | <sihsikati(')> Nf          |
| <jyhmahawy(')> Nf | siwahty' Nf                |
| saju' Nf          | jawaahxati Nf Lucy Kinsman |

b. Personal names, feminine, white-man.

|                        |                         |
|------------------------|-------------------------|
| xaahnaihni Nf Caroline | hehnahni Nf Helen (175) |
| suuhsi' Nf Susie       | 'otoohsi' Nf Rosie      |
| maaki' Nf Maggie       | maane' Nf Molly (175)   |
| paahci' Nf Patsy       | 'enahsi' Nf Elsie (175) |
| mini' Nf Minnie        | nene' Nf Nellie         |
| cuuni' Nf Julie        | 'ena' Nf Ella (175)     |
| heehso' Nf Hazel       | cini' Nf Jennie         |
| nihta' Nf Nita         | maina' Nf Mina          |
| 'ehma' Nf Emma         | sipihni' Nf Sibina      |
| mooti' Nf Maude        | naahnihsi' Nf Nancy     |

c. Personal names, masculine, Indian. The label Nf applies to each of the following.

|                |             |             |
|----------------|-------------|-------------|
| tahmaakihsi    | qahtaawahni | pajuuhcu'   |
| ta'ahqai       | qohmeehna'  | poihipoi    |
| tahnaani'      | qahsihna'   | pahehti'    |
| toohseehna'    | qohojoni    | patahsihna' |
| tunani'        | qahcu'wa'   | poqehsi     |
| <ciwijahnu(')> | pohpi'      | 'aahahci    |
| cajuhna'       | pihkui'     | 'ohociwi    |
| cahtahta       | pahnaawu'   | 'awoohsai   |

|           |           |         |
|-----------|-----------|---------|
| sohoky    | sehmi     | japaa'  |
| sahky'ma' | hihcahci  | jycypa' |
| seehma'   | howihno'  | wohgo'  |
| sihmohno  | jooho'    | myta'   |
|           | juhsuhma' |         |

d. Personal names, masculine, white-man. The label Nf applies to each of the following.

|                |              |
|----------------|--------------|
| caene' Charlie | pita' Peter  |
| pyyhsi' Percy  | waane' Wally |
| pyycu' Virgil  | coohno John  |
| ooo Joe        | maihki Mike  |
| pataihki Frank | cooci George |
| sihtiipi Steve | pihti Pete   |

e. Types of people. (A few of the following, as noted, can also be used to refer to animals.)

wowa' Nf Chukchansi Yokuts

qohsoo'moho Nf Southern Sierra Miwok

<caihnihmahni> Nf Chinaman has the freely varying  
allomorphs //caihnihmahni//\_//caikwani'//.

pahnijoohna' Nf Mexican

qanaaqa' Nf Negro

nyyhmy Nf Mono Indian, Indian, person; body

na'a Nf (boy) is always followed by <oi'> nNh 'dim.'

na'ahoi' Nf boy (335, 396a)



syjatyhmy Nf good-looking girl or young woman

sy<sup>o</sup>a Nf<sup>-</sup> girl always preceded by <Rh> Pd 'distributive'

(382)

Rhsy<sup>o</sup>a Nf girls

nana Nf man, male animal

hyyhpi' Nf woman, female animal has the allomorph

//hypi// when followed by <ci'> nNh 'dim.'

(335); the combination <hyyhpi' h ci'>

//hypihci'// Nf has the portmanteau seme

'old woman'.

ouku' Nf old man

<sup>o</sup>owaa' Nf<sup>-</sup>, I, Nbf baby (as I (392), has the alloseme

'sound made by baby when crying') as Nf<sup>-</sup>,

is usually or always followed by <<sup>o</sup>nuku'> nNx

(331a) or by <ci'> nNh 'dim.' (335). Occurs

as Nbf in:

pa <sup>o</sup>owaa' Nf water+baby (a legendary being)

<sup>o</sup>yny' Nf strange or fearful being (human, animal, or

legendary); white man

paatate' Nf preacher, minister

wahgeenu' Nf cowboy

caa<sup>o</sup>ma' Nf blind person

caahpu' Nf midget

f. Mammals. The label Nf applies to all of the following.

tyhyhta deer

tonoowi wildcat

to<sup>o</sup>hpi wolf

wiheehsihti mountain lion

|            |   |             |                 |
|------------|---|-------------|-----------------|
| pahtahqai  | raccoon                                     | pohihta     | skunk           |
| myhy       | porcupine                                   | pacuhku     | beaver          |
| kity       | groundhog                                   | qahmy       | jackrabbit      |
| teewa      | cottontail rabbit                           | 'ehkwy      | ground squirrel |
| mawi       | grey squirrel                               | puweci      | mouse           |
| jowa'      | bunny (young of any<br>rabbit species)      | qawa        | woodrat         |
| 'ihsa'     | coyote (331)                                | myjy        | gopher          |
| qohci      | pig, hog, pork                              | puhku       | dog, pet        |
| ho'nopi    | bat   | myhsa'wota' | chipmunk        |
| pohniihka' | sheep                                       | caqahsi     | donkey          |
| qajiihna'  | chicken                                     | ciiwu'      | goat            |
| too'no'    | bull  | qawaaju'    | horse           |
| kitii'     | cat (Some speakers use the form <qaahtu'>.) | qahnaahtu'  | cow, cattle     |

g. Birds. (The label Nf applies to all of the following.)

|                 |                       |
|-----------------|-----------------------|
| ciihpa'         | bird (generic term)   |
| qohcohpa'hi'na' | blue-fronted jay      |
| tahtati'        | chicken hawk          |
| kwi'naa'        | eagle                 |
| pannaahtata'    | California woodpecker |
| ci'nihsa'       | Brown towhee          |
| syhywoi'        | fox sparrow           |
| wiho            | turkey vulture        |
| suuku           | robin                 |

<caiyo'no> California (blue-)jay has the freely  
 varying allomorphs //caiyo'no//~//ceeyo'no//  
 wohpihkuhsu Modoc woodpecker  
 cihpihta mountain quail  
 widoici purple finch  
 qahy sierra grouse  
 muhu sp. owl; generic term for owls  
 wohqojaana sp. owl  
 nooito meadowlark  
 pyjy duck

h. Animals, other than mammals and birds. (Nf applies  
 to all.)

'ohno'ohnohki' king snake  
 weehqai mountain garter snake  
 <toqohqwa> Nf,Nbf rattlesnake; snake (generic term)  
 has the allomorph //qohqwa// when occurring  
 with <pahsi> No '(gopher snake)' (314a); has  
 the allomorph //htoqowa// when occurring (as  
 Nbf) with <pa> Pb 'water'; the allomorph  
 //toqohqwa// occurs elsewhere.

//pa htoqowa// Nf water snake

'ohcohqoi' toad  
 muhkuhta sp. lizard  
 'owoonti sp. lizard  
 poqo'ja sp. lizard; generic term for lizards

'ooqa turtle; clam; padlock; coin purse

'ahnaahcaahna' salamander

'aaqai salmon

qopoco sucker

'eepihsa bass

wowa' sp. ant

qoohqonowai' sp. ant

soo'jape sp. ant

pena yellowjacket

muipi housefly

hohpohpo' spider

ny'nyhkwypai' centipede

i. Plants, parts of plants used for food, foods derived from plants. (The label Nf applies to all.) Members of Nf which also belong to Nt are given in 313a.

keejihsi sp. flower and its seeds (211c)

qawohnohma sp. flower; its seeds

sapaahnu' sp. fern

sapahsipa' sp. fern

sihqoowa' squash

<hihoono'> beans has the freely varying allomorphs

//hihoono'//~//pihoono'//

jyhmyhna' acorn soup

qoohpe' coffee

types of mushrooms:

toohpo

paaku'

tahsihtu'

saahsi'

cajaahki'

seehxajuu'

cujuu'

jaahpahna'

qo'noohca'

no'i'

j. Articles of clothing. (Nf applies to all.)

no'mahii' clothing, property

<pihsi'mee'> apron has the allomorph //pihsi'mee//  
when occurring with <ja> nVi 'to wear/don'  
(367a); the allomorph //pihsi'mee'// occurs  
elsewhere.

//pihsi'mee ja// Vi to wear/don an apron

|                  |                           |
|------------------|---------------------------|
| cahqeeta' jacket | mahsihkaata' handkerchief |
| soweta' sweater  | sohmehneehna' hat         |
| woohata' boots   | taahpanu' shawl           |
| mohqo shoes      |                           |

k. Tools, equipment, useful objects, etc. (Nf applies  
to all.)

|   |                      |
|---|----------------------|
| 'ahpo cooking basket; basket (generic term) |                      |
| wono conical burden basket                  |                      |
| cihku seed-beating basket                   |                      |
| cahmaaja winnowing basket                   |                      |
| jahta twined cooking basket                 |                      |
| pooja small coiled basket with neck         |                      |
| 'ohsa bottle                                | wopihqoo wooden bowl |
| kuhsa bag                                   | kuhsihta'ni sack     |
| sahki sack                                  | qahoo'na box         |
| wahnihni barrel                             | pico blanket         |
| 'owoohno boat                               | wa'naahqa net        |
| 'etyh bow, gun                              | pihsihtoona' pistol  |

|         |   |              |              |
|---------|---|--------------|--------------|
| paqa    | arrow, bullet                             | wihi         | knife        |
| naahca' | ax, hatchet                               | haahma'      | hammer       |
| naahpu' | nail                                      | taahpi'ni    | board, plank |
| siija'  | saddle                                    | sihpuweehna' | spurs        |
| wynacu  | brush (made of soaproot)                  |              |              |
| poto    | walking stick, digging stick, staff, pole |              |              |

1. Miscellaneous. (Nf applies to all, unless otherwise noted.)

|             |                             |           |             |
|-------------|-----------------------------|-----------|-------------|
| 'oono'      | gold                        | jehnihpa' | poison      |
| co'ahpe     | ghost (331b)                | pojo      | road, trail |
| puha        | supernatural power          | hupija    | song, music |
| hupawa      | meat-juice                  | tyyhna    | meat        |
| kuhnahni    | corral, fenced-in enclosure |           |             |
| qahniwoohsa | jail                        |           |             |

tyhkwiki Nf<sup>-</sup> occurs only with <ni> nQl 'like' (355)

tyhkwikinih Ql plentiful, abundant

<nawahku> money has the allomorph //hnawahku// when preceded by <puhi> Nu 'blue/green' (312); the allomorph //nawahku// occurs elsewhere.

//puhi hnawahku// Nf. 'blue-green money (beads cut from abalone shell)'

qety Nf<sup>-</sup> occurs only with preceding <puhi> Nu 'blue/green' (312)

puhiqety Nf abalone shell

kyhma' Nf<sup>x</sup> other the combination of this morpheme with  
 <Rh> Pd 'distributive' occurs in IC with pre-  
 ceding <Rh na> Pdr 'reciprocal' (see 382);  
 this morpheme and the combination <kyhma' Na> O  
 'other-obj.' (337a) are commonly followed by  
 <hsu> P 'precisely, still' (395).

319. Nominalizing affixes. The morphemes listed below  
 occur in IC with forms other than N, the constitutes being  
 Nf or Nr. Eight classes are distinguished.

a. vNf, vNr. Occur with verb stems. Constitutes are  
 Nf (for vNf) or Nr (for vNr).

hpY vNf product of the action: 'that which is produced  
 by ...ing'

jaqa Vi to cry

jaqahpY Nf tears; wax in ears

naa Vi to grow

naahpY Nf timber, log

sii Vi to urinate

siihpY Nf urine

kwita Vi to defecate

kwitahpY Nf excrement

tuhi Vi to spit

tuihpY Nf spittle

<hna> vNr act of ...ing; object of the act of ...ing  
 has the allomorph //h// when occurring before  
 nL; the combination of this morpheme with  
 <Na> nO 'obj.' (337a) has the portmanteau  
 morph //hna//; the allomorph //hna// occurs  
 elsewhere

mija Vi to go

mijahna Nr(P) (...)'s departure; the place to which  
 ... went/is going

<°a mija hna Na> //°ahmijahna// O his departure-obj.;  
 the place to which he went-obj.

pihty Vi to arrive

pihtyhna Nr(P) arrival

cihouka Vt to point at

cihoukahna Nr(P) that which is being pointed at

jatuha Vi to talk

jatuhahna Nr(P) what is being said; language

<hnuñ> vNr<sup>+</sup> instrument with which the action is per-  
 formed: that with which one ... has the  
 allomorph //hnu// when occurring before Nr or  
 Nf, and when occurring after <sahqwa°a> Nt<sup>+</sup>  
 'fir' (313c); the allomorph //hnuñ// (225)  
 occurs elsewhere; occurs after two forms which  
 are not verb stems: <sahqwa°a> Nt<sup>+</sup> 'fir',  
 and, in a trinary construction, with  
 <pa hkwi> Nf, Nbr 'fish' (311a) and <poto> Nf



'staff' (318k); unlike other members of Nr, some combinations of verb stems plus <hnuñ> occasionally occur in IC with members of nL (348a); they can accordingly be designated as Nr<sup>+</sup>; one form which contains <hnuñ> as an IC, <cih cuka hnuñ> (see below), occurs as Nbr  
 //sahqwa?ahnu// Nf strainer (made of fir branches, used in leaching acorn flour)

tyhka Vi, Vt to eat

tyhkahnuñ Nr<sup>+</sup> instrument for eating; table

wihi Nf knife

//tyhkahnuwih// Nf table-knife

<cih noo> //cih ?noo// Vt to carry or move

with pointed object (223a, 365, 386)

//cih?noohnuñ// Nr<sup>+</sup> pitchfork (231a, 225b)

//tyhkahnucih?noohnuñ// Nf table-fork

pahkwipotohnuñ Nf fishing-pole (231a, 225b)

tuheñ nL under

tyhkahnũtuheñ L under the table

cih cuka Vt to point at (386)

cihcukahnuñ Nbr (index finger)

mahcihcukahnuñ Nr(P) index finger

qahty Vi (sg.) to sit

qahtyhnuñ Nr<sup>+</sup> chair

pa noo Vt to haul (water)

panoohnuñ Nr<sup>+</sup> bucket (231a, 225b)

pe vNf cognate object: that which is ... differs from <hna> vNr (above) as follows: <hna> is ordinarily used with verb stems which can take a variety of objects, and the constitute with <hna> denotes whichever of the possible objects happens to be concerned in the particular case, or it may denote the action itself; <pe> vNf is used with nouns which by their semantic nature can have only one or a limited number of logical objects

nyka Vi to dance

nykape Nf a dance

°ehki Vi to eat acorn mush, acorn soup, acorn biscuits.

°ehkipe Nf acorn mush

' vNf agent: one who ...s

nohqaqa Vtt to steal (366)

nohqaqa' Nf thief

kwica Nr(pi) sp. larvae which grow in Mono Lake

tyhka Vi,Vt to eat

tyhka' Nf<sup>-</sup> eater occurs only as second member of compounds.

kwicatyhka' Nf Mono Lake Paiute: "larvae-eaters"

hty' vNf customary or former agent: one who customarily or habitually ...s; one who used to ...

wyy Vt to catch, capture, take

ty Pt indefinite object (324)

tywyy Vi to catch things/people

tywyyhty' Nf sheriff

poo Vt to cut hair, shear (sheep)

typoohty' Nf barber

ca'ahtini Nl place name

wū nL̄ at (231b, 248a)

//nyy// Np I (321, 323)

nopih̄ Vi to dwell (367a, 224a)

//ca'ahtiniwū+nyy+nopih̄hty'// IN I used to live  
at Ca'ahtini (396c)

pecy vNf excessive agent: one who ... very much, too  
much (usually is used derogatively)

syjee Vi to be afraid

syjeepecy Nf coward

syhyka Vi to gather sticks (367a)

syhykapecy Nf a real stick-gatherer, one who is  
going around gathering a great many  
sticks

tyñ vNf, lN neutral agent: one who is now ...ing, one  
who has recently ...ed when it follows the  
immediate future suffix <waih>, the meaning  
of the composite form is 'one who will soon  
..., one who is planning to ...'; corresponds  
in tense and aspect to the neutral tense

suffix <hti> (379b); see also 318b

mija Vi to go

mijatyñ Nf one who is going, one who went

mijawaihtyñ Nf one who intends to go soon

tyhkatyñ Nf one who is eating, one who ate

//ca<sup>o</sup>ahtiniwũ+ngy+nopih~tyñ// IN I live at

Ca<sup>o</sup>ahtini

hci vNf<sup>o</sup> agent occurs only with <pa hapi> Vi 'to

swim', with which it forms a portmanteau

seme, and <ty<sup>o</sup>ohi> K left (341)

pahapihci Nf bear

ty<sup>o</sup>ohihci Nf left-handed person

b. IN, qN. The following morphemes occur with members of L, Q1, and Qn.

tyñ IN, vNf that which/one who is (located) ... (225)

(see also 319a)

nopih Nf house (311c, 385)

weeh nL in (348a)

nopih~weeh L in the house (224a, 396b)

nopih~weeh<sup>o</sup>tyñ Nf he who/that which is in the house

<sup>o</sup>unañpaah pL, L<sup>o</sup> on the other side

<sup>o</sup>unañpaah<sup>o</sup>tyñ Nf he who/that which is on the other

side; Auberry Mono (who live on the other

side of the San Joaquin River from North

Fork)

<htu> lN,qN that which/one who is ... when followed by nL or nO, has the allomorph //h//; when occurring after Ql or Qn, and not followed by nL or by <Na> nO 'obj.', has the freely varying allomorphs //htu//~//i//; the allomorph //htu// occurs elsewhere; does not occur in IC with <symy> Qn<sup>x</sup>

cawu Ql well, good

<cawu htu> Nq good (one)

<waha htu> Nq two

<waha htu Na> //waha h ku// O good-obj.

nopih~ni Ql house-like (355, 396b)

<nopih~nihtu> Nq house-like object

<nopih~nihtuweeh> //nopih~nihweeh// L in a/the house-like object (213a)

<puti 'i> Vi to emerge (362d, 371d)

hti vIN neutral tense (369b)

//poihpoi+nopih~weehhtu+puti'ihti// IN Poipoi came out of the house

//cah puti 'i// Vt to cause to emerge, to get (someone/something) out

qahniwoohsa Nf jail

//poihpoiNa+nyy+qahniwoohsa~weehhku+'acahputi'ihti//  
IN I got Poipoi out of jail

h..' qN<sup>-</sup> has been found only in IC with <symy> Qn<sup>x</sup>  
'one', <Rh symy> Qn 'one-distributive', and  
<Rh waha> Qn 'two-distrib.' (382)

//syhny'// Nf, Nq one (227)

//Rhsyhny'// Nf some

cf. <Rh symy htu> Nq one by one, one after  
another (382)

<Rh waha h..'> //R<sup>o</sup>wahha'// Nf twins (382, 223a)

cf. <Rh waha htu> Nq two by two

c. qcN. The following morpheme occurs with <cyhkwyta>  
Qc 'with effort, hard', the only member of class Qc (354c).

hpY qcN

cyhkwytahpY Nf a person with a great deal of  
stamina or physical endurance

d. iN. Occurs with imitative stems. This class con-  
tains but one member.

hna' iN 'that which makes the sound ...'. has the  
allomorph //<sup>o</sup>na'// when occurring after  
<tawaa'> I 'cry of the spotted towhee' and  
<maa> I 'sound made by mosquitos'; the allo-  
morph //hna'// occurs elsewhere

//tawaa'<sup>o</sup>na'// Nf spotted towhee (227f)

//maa'<sup>o</sup>na'// Nf mosquito

qopoqopo I cry of the western tanager

qopoqopohna' Nf western tanager

coohcoohhna' Nf western bluebird

ʔuuʔuihna' Nf roadrunner

pahky+pahky I sound made by the pileated wood-  
pecker (when pecking)

pahky+pahkyhna' Nf pileated woodpecker

e. hNr. Occurs with <ha> H 'indefinite' (327). This class contains a single member.

<iih> hNr

<ha iih> //h iih// Nr(P,pY) what, something

//ʔihih// Nf my what/something (i.e. what/  
some relative of mine)

//hihpY// Nf what, something

f. uN. The following morpheme occurs with one member of class U (312, 361a).

,,~ uN has been found only with <ʔahca pono>

//ʔahcapana// U tan, brown, copper-colored

//ʔah~capana// Nf red-shafted flicker (204e, 234a,  
251)

### 320 Pronominal Elements

320. In this section are listed the personal, reflexive, indefinite object, demonstrative, and indefinite pronominal morphemes, together with certain morphemes which occur with

these elements: <ni> pp 'personal pronominal plural', <hkwa'> nNp 'personal pronominal plural', <my> pN 'independent personal pronoun base', <hu> dN 'independent demonstrative base', <qeñ> hN 'independent indefinite pronoun base', and <hka> o '(obj.)'. The plural morpheme <ay> nNm 'animate plural', which occurs with Nf as well as with Nd ("independent demonstratives"), is included in the section on substantival suffixes (336).

321. Pp, Pr. These two classes are similar in distribution in that members of both of them occur in IC with Vt ("transitive verb stems"), Vtt ("double-transitive verb stems"), pN (323), and with <ni> nQl 'like' (355). In other respects they differ in distribution.

a. Pp, "personal pronominal prefixes". These morphemes (aside from the exceptions noted below for <ʔa> Pp<sup>x</sup> 'third person' and <tyh> Pp<sup>-</sup> 'subject third person') occur in IC with:

N (303g), where they denote possessor (or similar relationship);

Vt and Vtt, where they denote the object;

nL, pL (348a, 347b), where they denote object;

Vi plus vT (358b, 455d);

<ni> pp 'personal pronominal plural' (322);

nQl (355), except <ke> nQl 'having';



<toki> Q1<sup>+</sup> 'right' (354b);

<my> pN 'independent personal pronoun base' (323);

Op (independent personal pronominal objects 436b), with  
intervening <+> (396c, 423a).

All of the above except Op follow the member of Pp with  
which they are in immediate constituency.

<ny> Pp first person has the allomorph //ni// when  
occurring before <ni> pp 'personal pronominal  
plural', and the allomorph //ʔi// when occur-  
ring before N', V, and <toki> Q1<sup>+</sup> 'right';  
the allomorph //ny// occurs elsewhere (i.e.  
before <my> pN 'personal pronoun base', nQ1,  
nL, and pL)

<ʔyh> Pp second person has the allomorph //ʔy// before  
<my> pN when the latter is not followed by  
<Na> nO 'obj.' (337a) and before <ni> pp 'pl.'  
when the latter is followed by nL, nQ1, <toki>  
Q1<sup>+</sup>, and V; the allomorph //ʔyh// occurs else-  
where, except that the combination of this  
morpheme with <ni> pp 'plural', when the lat-  
ter is followed by pN, pL, or N', has the  
freely varying portmanteau morphs //ʔyhnih//  
//ʔyih//

<ʔa> Pp<sup>x</sup> third person does not occur with <my> pN,  
the function of such a combination being ful-  
filled by the independent demonstrative

pronouns Nd (326); but, unlike other members of Pp, does occur in constructions 423b-d; 421b, and 481; has the allomorph //ʔah// when occurring before N', pL, and Pr; the allomorph //ʔa// occurs elsewhere

<tyh> Pp<sup>-</sup> subject third person occurs only with N' and <ni> pp 'plural', and denotes (by itself or in combination with <ni> pp) that the possessor of the noun is the same third person as the subject of the verb; has the allomorph //ty// when occurring before <ni> pp 'plural', and the allomorph //tyh// when occurring before N'

|                 |       |     |                 |     |     |     |      |      |    |     |     |       |
|-----------------|-------|-----|-----------------|-----|-----|-----|------|------|----|-----|-----|-------|
| <tyh            | puhku | Na  | +               | ʔa  | puh | ~ni | hti> | IN   | he | saw | his | (own) |
| Pp <sup>-</sup> | Nf    | nO  | Pp <sup>x</sup> | Pb  | pV  | vIN |      |      |    |     | dog |       |
|                 | sub3  | dog | obj             | 3   | eye | do  | -ed  |      |    |     |     |       |
|                 |       |     |                 | 337 |     | 385 | 367a | 379b |    |     |     |       |

ta Pp inclusive person (i.e. first person plus second person) the combination <ta ni> Pp and the single morpheme <ta> Pp both function as first person inclusive plural; (the combination <ny ni> Pp denotes first person plural exclusive)

A summary of the allomorphy of the personal pronominal prefixes is given in the table below. Six sets of morphs

are designated. They occur as follows: set 1, before <ny> pN 'independent pronoun base'; set 2, before pL; set 3, before nL, nQl; set 4, before V and <toki> Ql<sup>+</sup>; set 5, before N'; set 6, before <ni> pp 'personal pronominal plural'.

|      | <ny>  | <?yh>  | <?a>  | <tyh>  | <ta> |
|------|-------|--------|-------|--------|------|
| Set: | first | second | third | subj-3 | incl |
| 1    | ny    | ?y(h)  | --    | --     | ta   |
| 2    | ny    | ?yh    | ?ah   | --     | ta   |
| 3    | ny    | ?yh    | ?a    | --     | ta   |
| 4    | ?i    | ?yh    | ?a    | --     | ta   |
| 5    | ?i    | ?yh    | ?ah   | tyh    | ta   |
| 6    | ni    | ?y(h)  | ?a    | ty     | ta   |

#### Paradigms:

With qwena?a pL,L distant, far (from)

//nyqwena?a// L far from me

//?yhwena?a// L far from thee

//?ahqwena?a// L far from him/her/it

//taqwena?a// L far from us (incl.)

With weeh nL in

//nyweeh// L in me

//?yhweeh// L in thee (213a)

//?aweeh// L in him/her/it

//taweeh// L in us (incl.)

With naki Vt to follow

//?inaki// Vi to follow me

//?yhnaki// Vi to follow thee

//ʔanaki// Vi to follow him/her/it

//tanaki// Vi to follow us (incl.)

With puhku Nf dog, pet

//ʔipuhku// Nf my dog

//ʔyhpuhku// Nf thy dog

//ʔahpuhku// Nf his/her/its dog

//tyhpuhku// Nf<sup>-</sup> his/her/its (own) dog

//tapuhku// Nf our (incl.) dog

For examples with <ni> pp 'plural' and <my> pN 'pronoun base', see 322 and 323 respectively.

b. Pr, "reflexive pronoun". This class, whose distributional properties are indicated below, has one member.

<na> Pr 'reflexive' has allomorphs //py//, //na//, //nah//, //na<sup>o</sup>//; the conditions of their occurrence, and the distribution and meaning of the morpheme, are as follows:

(1) Occurs in IO with following <my> pN 'independent personal pronoun base' (323), with the allomorph //py//.

<na my> //pyy// Np<sup>-</sup> 'oneself (intensive)'

does not occur with <Na> nO 'obj.'

(337a); this form, and the combina-

tion <na my hkwa'> //pyyhkwa'// Np<sup>-</sup>

'oneselves' are usually (or perhaps

always) followed by <hsu> F 'precisely, still' (395).

- (2) Occurs in IC with following Vt, Vtt (365, 366), where it has reflexive or passive meaning, with the allomorph //na//, except before a few verb stems whose morphophonemic representations have an initial resonant, where it has the allomorph //naʔ//.

<cah puti ʔi> Vt to get (smthg.) out  
(386, 371d)

//nacahputiʔi// Vi to be gotten out (e.g. of jail)

//napuhmaaci// Vi to be recognized

//naʔmah~caqa// Vi to wash one's hands

mahqa Vtt to give (smthg.) to (someone)  
(366)

namahqa Vt, Vi to be given (smthg.)

<wahci ~a..> //wah~aci// Vtt~ to hide  
(371c, 204e)

//naʔwa<sup>h</sup>aci// Vt, Vi to hide (oneself) (from)

<na my hsu + na jawi hti> //pyyhsu+najawihti//  
IN he's laughing at himself

- (3) Occurs in IC with preceding <Rh> Pd 'distributive' (382), where it has the allomorph //nah// except when followed by N', where it has the allomorph //na//.

<Rh na> //Rmah//, //Rma// Pdr 'reciprocal'  
(241)

Rh pa<sup>o</sup>añ nL<sup>-</sup> distributively on top  
//RmahRnpa<sup>o</sup>añ// L on top of one another  
//Rmahna<sup>o</sup>wa<sup>v</sup>aci// Vi to hide from each other  
//Rmahhawa// Vi to scold each other (223a)  
//Rmahwaqa// Vi to talk to each other (213e)  
//Rmahpyhni'// Nf sisters: "each other's  
younger sister"

//Rmahpety// Nf parent and daughter: "each  
other's daughter"

//Rmahmahqa// Vt, Vi to give each other  
(smthg.)

cahmyhna<sup>o</sup>ky' Vtt to cause to change/turn  
over (386, 372a, 226)

//<sup>o</sup>aRmahcahmyhna<sup>o</sup>ky'// Vt to cause to change  
each other

//<sup>o</sup>aRmahcahmyhna<sup>o</sup>ky'// Vi to cause them to  
change (position with) each other

See also 382.

(4) Occurs in IC with preceding <<sup>o</sup>a> Pp<sup>x</sup> 'third  
person' (321), with the allomorph //nah//.  
421b.

(5) Occurs in IC with following <ni> nCl 'like'  
(which has the allomorph //mahani// when

occurring with it 355), with the allomorph //na<sup>o</sup>//. Here it has reciprocal meaning.

<na ni> //na<sup>o</sup>mahani// Ql like each other,  
alike

- (6) Occurs, with the allomorph //nah// and reciprocal meaning, in IC with at least two forms consisting of <Rh> Pd 'distributive' plus nL:

Rhpa<sup>o</sup>añ nL<sup>-</sup> distributively on top (382)

//nahRhpa<sup>o</sup>añ// L on top of one another

Rhpihnañ nL<sup>-</sup> distributively after, behind

//nahRhpihnañ// L after one another, behind

one another, one after another

- (7) Occurs in IC with following <typihi nañ> L<sup>-</sup>  
'at the middle', with the allomorph  
//nah//.

//nahtypihinañ// pL<sup>-</sup> occurs only with those members of Pp which contain <ni> pp 'pl.' (322b).

//<sup>o</sup>aihnahtypihinañ// L between them, in their midst

- (8) Occurs in IC with following <sy<sup>o</sup>my> Qn<sup>+</sup> 'one' (which has the allomorph //sy<sup>o</sup>my// when occurring with it), with the allomorph  
//nah//.

//nahsy<sup>o</sup>my// Qn all

322. pp, nNp. These two classes contain one morpheme each. The morphemes both indicate plurality, are both associated with the personal pronominal prefixes Pp, and are mutually exclusive, but they differ in distribution, with respect to both position of occurrence and the distribution class membership of the forms with which they occur in immediate constituency.

- a. <hkwa'> nNp 'independent personal pronominal plural'  
 (226) occurs (1) after combinations consisting of a member of Pp followed by <my> pN 'independent personal pronoun base'; the constituents do not occur with <Na> nO 'obj.' (or <hka> o '(obj.)'); (2) with imperative expressions IM (493b)

my my> //nyy// Np 'I'

//nyyhwkwa'// Np<sup>-</sup> we (excl.)

Further examples are given in 223, 493b.

- b. <ni> pp 'personal pronominal plural' occurs with Pp, under the conditions described below

The combinations of <ni> pp and preceding members of Pp occur before <my> pN 'independent personal pronoun base' only if the latter is followed by <hka> o '(obj.)' (329) and <Na> nO 'obj.' (337a). <ni> pp occurs after <tyh> Pp<sup>-</sup> 'subject third person' only if it is followed by N' (this limitation applies in accordance with the restrictions on the occurrence



of <tyh> Pp<sup>-</sup> not followed by <ni>). The occurrence of this morpheme with the third person morphemes and the inclusive person morpheme is optional; <ni> pp in general does not occur in referring to plural persons except when the speaker is definitely specifying plurality. There is a tendency for <ta> Pp 'incl.' to be used without <ni> pp when two persons are involved (i.e. one second person), and for <ta ni> Pp to be used when more than two are involved (i.e. more than one second person), but this is only a tendency; <ta> Pp alone frequently occurs with reference to more than two, and the combination <ta ni> Pp occasionally occurs when only one second person is involved. These remarks apply also to <ta my> Np and <ta my hkwa'> Np.

<ni> pp has allomorphs //nih//, //ni//, //ih//, //i//, partly in free variation, partly conditioned. The allomorphs with final //h// occur before <my> pN 'independent personal pronoun base', pL, and N', and the presence or absence of initial //n// is a matter of free variation except after <ny> Pp 'first person', where the //n// never occurs. Thus we have //nih//~//ih// before pN, pL, and N', except after <ny> Pp 'first person'; //ni//~//i// before nL, nQl, <toki> Ql<sup>+</sup> 'right' (354b), and V, except after <ny> Pp 'first person'; and //ih// and //i//, in the corresponding environments, after <ny> Pp 'first person'. The combinations of <ni> pp with <?yh> Pp 'second person' require special treatment: in the environments in which //nih//~//ih// occur for

<ni> pp, <°yh> has allomorphs //°yh//~//°y//, the former occurring with //nih//, the latter with //ih//. Since all morphs are at the same level of the structural hierarchy, it is not permissible to allow the selection of an allomorph of one morpheme to be conditioned by the occurrence of one of two freely varying allomorphs of another. Therefore, although it is possible to segment each of the two possible morphophonemic sequences into two morphs, freely varying portmanteau morphs must be set up to represent the morphemic sequence <°yh ni> Pp '2nd pl.' occurring before pN, pL, N': //°yhnih//~//°yih//. In each of the environments in which freely varying morphs with and without //n// occur for <ni> pp, the morph without //n// is more frequent. The various morphophonemic representations of the combinations of Pp with <ni> pp are shown in the table below. The morphophonemes included in parentheses are those which vary freely with //ø//.

|                       | <ny ni><br>1 pl excl | <°yh ni><br>2 pl | <°a ni><br>3 pl | <tyh ni><br>3 subj pl | <ta ni><br>1 pl incl |
|-----------------------|----------------------|------------------|-----------------|-----------------------|----------------------|
| Before:               |                      |                  |                 |                       |                      |
| N'                    | nih                  | °y(hn)ih         | °a(n)ih         | ty(n)ih               | ta(n)ih              |
| pN                    | nih                  | °y(hn)ih         | --              | --                    | ta(n)ih              |
| pL                    | nih                  | °y(hn)ih         | °a(n)ih         | --                    | ta(n)ih              |
| nL, nQl,<br>V, <toki> | nii                  | °y(n)i           | °a(n)i          | --                    | ta(n)i               |

## Paradigms:

With <puhku> Nf 'dog, pet'

//niihpukku// Nf our (excl.) dog

//<sup>o</sup>yihpuhku//~//<sup>o</sup>yhnihpukku// Nf y'all's dog

//<sup>o</sup>aihpukku//~//<sup>o</sup>anihpukku// Nf their dog

//tyihpuhku//~//tyhihpukku// Nf their (own) dog

//taihpukku//~//tanihpukku// Nf our (incl.) dog

With <qwena<sup>o</sup>a> pL,L 'distant, far (from)'

//niihqwena<sup>o</sup>a// L far from us (excl.)

//<sup>o</sup>yihqwena<sup>o</sup>a//~//<sup>o</sup>yhnihqwena<sup>o</sup>a// L far from y'all

//<sup>o</sup>aihqwena<sup>o</sup>a//~//<sup>o</sup>anihqwena<sup>o</sup>a// L far from them

//taihqwena<sup>o</sup>a//~//tanihqwena<sup>o</sup>a// L far from us (incl.)

With <weeh> nL 'in'

//niweeh// L in us (excl.)

//<sup>o</sup>yiweeh//~//<sup>o</sup>yniweeh// L in y'all

//<sup>o</sup>aiweeh//~//<sup>o</sup>aniweeh// L in them

//taiweeh//~//taniweeh// L in us (incl.)

With <naki> Vt 'to follow'

//niinaki// Vi to follow us (excl.)

//<sup>o</sup>yinaki//~//<sup>o</sup>yninaki// Vi to follow y'all

//<sup>o</sup>ainaki//~//<sup>o</sup>aninaki// Vi to follow them

//tainaki//~//taninaki// Vi to follow us (incl.)

For examples with <my> pN, see 323.

323. pN, "independent personal pronoun base". This class contains one member, which occurs with the personal pronominal morphemes <ny> Pp 'first person', <?yh> Pp 'second person', and <ta> Pp 'inclusive person', with combinations of these morphemes and <ni> pp 'personal pronominal plural', and with <na> Pr 'reflexive'.

<ny> pN independent personal pronoun base has the allomorph //ny// when followed by <hka> o '(obj.)' (329), and the allomorphs //y// and //a// otherwise, the latter after <ta> Pp 'inclusive person', the former elsewhere; occurs after <ni> pp 'plural' only if followed by <hka> o '(obj.)'; otherwise, the plural function is fulfilled by <hkwa'> nNp 'plural' (322a), which follows <my> pN

In the examples below, \* appears after morphophonemic representations which occur (only) if <hka> o '(obj.)' does not follow.

<ny my> //nyy//\* Np I

<ny my hka Na> //nymyhkaa// Op me/my (216a, 337a)

<ny my hkwa'> //nyyhkwa'// Np we (excl.) (226)

<ny ni my hka Na> //nihmyhkaa// Op us/our (excl.)

<?yh my> //?yy//\* Np thou

<?yh my hka Na> //?yhmyhkaa// Op thee/thy

<?yh my hkwa'> //?yyhkwa'// Np y'all

<?yh ni my hka Na> //?yihmyhkaa//~//?yinihmyhkaa//

Op y'all (obj.)/y'all's

<ta my> //taa//\* Np we (incl.) (usually dual)

<ta my hka Na> //taryhkaa// Op us/our (incl.)

(usually dual) (216a)

<ta my hkwa'> //taahkwa'// Np we (incl.) (usually

more than two)

<ta ni my hka Na> //taihmyhkaa//~//tanihmyhkaa// Op

us/our (incl.) (usually more than two)

<na my hsu> //pyyhsu// Np oneself

<na my hkwa' hsu> //pyyhkwa'hsu// Np oneselves

(226b)

324. Pt, "indefinite object". This class contains one member, which occurs in immediate constituency with following Vt or Vtt.

ty Pt indefinite object

This morpheme denotes indefinite objects (animate or inanimate) as goals of the verbal action, or an indefinite number of items of a goal which is specified by an objective substantive expression (436, 337a), or an indefinite amount of participation as goal of the goal.

poo Vt to cut hair, shear

ty poo hty' Nf barber (319a)

ʔahpo Nf cooking basket; basket

weni Vt to sell

//ʔi ʔahpo Na + ny y + ty weni tyñ// IN I'm selling  
my baskets (but not all of them at once)

teeqa Vt to paint

tyteeqatyñ Nf painting something; painting things

cf. ʔateeqatyñ Nf painting it

htywy Vtt to ask (somebody) for (smthg.)

tyhtywy Vt to ask (somebody) for smthg./some

325. D, "demonstratives". The three morphemes of this class occur in IC with <hu> dN 'independent demonstrative base' (326). Certain other combinations in which members of D occur are noted below.

<ʔi> D this has the allomorph //ʔih// when occurring before <tukuñ> nL 'to, through'; the allomorph //ʔi// occurs elsewhere.

This morpheme occurs with <tukuñ> nL 'to, through', <nañ> xL 'at, on', <naah> (pK) (344), and <peñ> dL (which occurs only with <ʔi> D), as well as with <hu> dN 'demonstrative base'. The latter has the allomorph //hi// when occurring with <ʔi> D.

<ʔi hu> //ʔihi// Nd this (one)

<ʔi tukuñ> //ʔihtukuñ// I. to here, hither

ʔinañ L, (pL) here

ʔipeñ L right back here

ʔinaah pK occurs only with <hnaħqweh> KL 'side'

ʔinaahhnaħqweh pL on this side of

ʔu D that (nearer) occurs with <nañ> xL 'at, on' and

<nash> (pK) as well as with <hu> ~~hN~~

ʔuhu Nd that (one) (nearer)

ʔunañ (pL) occurs only with <paah> nL 'by'

ʔunañpaah pL,L on that side (of), on the other  
side (of)

ʔunaah pK occurs only with <hnaħqweh> KL 'side'

ʔunaahhnaħqweh pL on the other side of

<ma> D that (farther) has the allomorph //maa// when  
followed by <nañ> xL 'at, on' (which has the  
allomorph //hnoñ// when occurring with <ma>);  
the allomorph //ma// occurs elsewhere

The difference in meaning between <ʔu> and <ma> is  
very slight; the two morphemes are practically inter-  
changeable, but have a tendency to be differentiated on  
the basis of distance from the speaker, and in that <ma>  
has a somewhat stronger demonstrative force. Very oc-  
casionally, <ma> occurs in IC with following Vt, as a  
third person object (occurring here instead of <ʔa> Pp  
'third person'). The use of <ma> rather than <ʔa> in  
this position gives greater force to the expression.

mahu Nd that (one) (farther)

<ma nañ> //maa hnoñ// L there

326. dN, "independent demonstrative pronoun base".

This class contains one member, which occurs in immediate constituency with D (325). The constitutes, Nd, have distribution similar to that of free noun stems Nf.

<hu> dN demonstrative base has the allomorph //hi// when occurring after <ʔi> D 'this', and after <ni> nQ1 'like', with or without intervening <'> (ʔA) (353a); has the allomorph //huñ// when occurring after nL (348a); the allomorph //hu// occurs elsewhere

This morpheme is always preceded by <hka> o (329) when it is followed by <Na> nO 'obj.' (337a). Members of nL (348a) occur between D and <hu> dN.

<ʔi hu> //ʔihi// Nd this (one)

ʔuhu Nd that (one) (nearer)

mahu Nd that (one) (farther)

ʔi hka hu Na Od this one-obj.

ʔuhkahuNa Od that one-obj.

mahkahuNa Od that one-obj. (211a)

<ʔi weeh hu> //ʔiweehhuñ// L in this (one) (223a)

//ʔuweehhuñ// L in that (one)

//maweehhuñ// L in that (one)

//ʔipaʔañhuñ// L on top of this (one) (225k)

//mapaʔañhuñ// L on top of that (one)

//mani'hi// Q1 just like that



327. H. This class contains one member, whose unique distributional properties are described below.

- <ha> H interrogative-indefinite occurs, with allomorphs  
 //ha// and //h//, as indicated by the examples:
- ha qeñ Nh who, someone (328)  
 tu°i ha qeñ Nh anyone (393b)
- <ha hka Na> //ha hka a// Oh who/someone-obj. (337a,  
 329, 211a)
- //tu°ihahkaa// Oh anyone-obj.
- //h eehti// Oh what/something-obj. (as object of  
 verbs of saying) (337b)
- //tu°i h eehti// Oh anything-obj. (as object of  
 verbs of saying)
- //h ihmaa// Oh what/something-obj. (except as ob-  
 ject of verbs of saying) (337b)
- //tu°ihihmaa// Oh anything-obj. (except as object  
 of verbs of saying)
- //h iih// Nr(P,pY) what, something (319e)
- //tu°ihiih// Nr(P,pY) anything
- ha wuhta L in what/some direction (348b)
- tu°i ha wuhta L in any direction
- <ha nañ> //ha hno// L where, somewhere (348c)
- //tu°ihahno// L anywhere
- //h ihno°o// Qn,T as Qn: how many, some; as T:  
 when, sometime (353b)

//tu'ihihno'o// Qn,T as Qn: any amount; as T:  
anytime

ha hni'i C why, for some reason (393a)

tu'ihahni'i C for any reason

328. hN. This class contains a single member, which occurs only with <ha> H (327) and <tu'i ha> H 'any' (393b).

qeñ hN interrogative-indefinite pronoun base

haqeñ Nh who, someone

tu'ihaqeñ Nñ anyone

The object forms which correspond to these (see 327) do not contain <qeñ> hN, but do contain <hka> o (329), like the object forms corresponding to Np and Nd.

329. o. This class contains a single member, which has no meaning, but whose presence is required in combinations of <Na> nO 'obj.' (337a) with Np, Nd, and H.

<hka> o '(obj.)'

<ny my> Np I (321a, 323)

<ny my hka Na> //nymyhkaa// Op me

<ny ni my hka Na> //ni ih my hka a// Op us

ma hu Nd that (one) (325, 326)

ma hka hu Na Od that-obj. (211a)

<ha hka Na //ha hka a// Oh who/someone-obj. (211a)

For further examples, see 323, 326, 327.

330 Substantival Suffixes

330. The morphemes treated in this section (except those of 337) occur in IC with preceding noun stems, the constitutes likewise being noun stems. Forms containing the morphemes of 337 as ICs are objective substantive expressions.

331. Limited Noun Suffixes. These morphemes are very limited in distribution. One of them occurs with three morphemes; the others occur with a single morpheme each.

a. nNx. The morphemes of this class each occur with a single member of Nf. The constitutes are also Nf.

h.. nNx only with <wynacu> Nf 'brush made of soaproot'  
 <wynacu h..> //wynahcu// Nf White-man brush, broom,  
 comb

<X> nNx only with <'ihsa'> nNf 'coyote'; the combination has the portmanteau morph //°ica'//

<'ihsa' X> //°ica'// Nf coyote (obscene term)

°nuku' nNx only with <'owaa'> Nf<sup>-</sup>, Nbf, I '(baby)' (319e,  
 311c, 391)

°owaa'°nuku' Nf baby (227f)

y nNx only with <'yny'> Nf 'strange or fearful being;  
 white man'; the constitute is limited in  
 distribution

ʔyny'y Nf<sup>-</sup> only with <ni> nQl 'like', with  
intervening <~> (396b)

ʔyny'y~ni Ql strange, fearful (227h, 251)

b. nN'. This class contains a single morpheme, which occurs in IC with one member of Nf and two members of Nr. Two of the constitutes are Nf, one is Nr<sup>-</sup>.

' nN' only with <pija> Nr(P) 'mother', <nahqa> Nr(P) 'ear', <co'ahpe> Nf 'ghost'

pija' Nr<sup>-</sup>(P) has been found only in the form:

<'oono' Na + 'a pija '> // 'oono'Na+'ahpija'//

Nf placer (217a, 337a, 321a, 396c)

nahqa' Nf sp. mushroom (which is ear-shaped)

co'ahpe' Nf crow; daddy long-legs

c. nNo. This class contains a single member, which occurs with one member of Nr. The constitute occurs as either Nf or Nr(pY) with no apparent difference in meaning or use.

hco'o nNo only with <nahqa> Nr(P) 'ear'

nahqahco'o Nf-Nr(pY) deaf person (or animal)

nahqahco'opY Nf deaf person (or animal)

d. nNj. This class contains one morpheme, which occurs with one member of Nu.

ja nNj only with <'ehsi> Nu 'gray'

'ehsija Nr(pY) ashes

332. nNt, nNn. These classes contain a single member each. Both morphemes occur with members of Ntn (313d). In addition, nNt occurs with Nt (313a-c) and nNn occurs with Nn (313e).

' nNn nut suffix

typah' Nf piñon nuts (223b)

jaqa' Nf white oak acorns

For further examples, see 313d, e.

pY nNt tree suffix

typahpY Nf piñon pine

jaqapY Nf white oak

wynyhpY Nf tree

wijahpY Nf black oak; oak (generic term)

\*ahpohsowapY Nf manzanita bush

\*aahpa\*nipY Nf apple tree

For further examples, see 313a-d.

333. nNf. This class contains one member. It occurs with Nr (restricted noun stems), the constituents being Nf (free noun stems).

<pi> nNf absolutive suffix has allomorphs //pi//,

//pY//, //pe//, //pi'//; the last occurs only

with <tuwah> Nr<sup>x</sup>(P,pi') 'son, child' (316b);

the occurrence of these allomorphs is defined

by the designations in parentheses following

the distribution symbol Nr of forms which occur with this morpheme (303b)

For examples, see 316.

334. nN<sup>1</sup> This class contains one member. Forms containing it are Nl (place names), but there are many place names which do not contain this morpheme.

<h..'> nNl place suffix: place where there is/are ... has the allomorph //h..'// (204e) when occurring after <pY> nNt 'tree suffix'; the allomorph //'// occurs elsewhere

jaqa pY Nf white oak

<jaqapY h..'> //jaqahpY'// Nl(weeh) place where white oaks grow (this is the place where informant Lucy Kinsman lives) (303c)

//jaqahpY'weeh// L at the place where white oaks grow

wojoojno pY Nf buckeye tree

//wojoojnohpY'// Nl(weeh) place where there are buckeye trees

°ohma pi Nf salt

//°ohmapi'// Nl(hmañ) place where there is salt (a mountain)

wa°ah pY Nf cedar

//wa°ahhpY'// Nl(weeh) Cedar Grove (Mono name for North Fork) (223a)

335. nNh, "affective suffixes". The members of this class occur with preceding Nf, the constitutes likewise belonging to class Nf. One of them, <ci'> nNh<sup>+</sup> 'diminutive', has a wider distribution, and four of them have very limited distribution as members of nNh. Two members of nNh occur also as Nr. Members of nNh (when occurring as nNh rather than Nr) are always preceded by the tactic juncture <h> (396a).

<ci'> nNh<sup>+</sup> diminutive

This morpheme is used with forms denoting entities held in affectionate regard by the speaker as well as those whose small size the speaker wishes to emphasize. It is very common in the former sense. It occurs with Np, Nd, and Nh as well as with Nf. It can occur twice after certain members of Nf (see below), and it always occurs twice after a few forms which occur only with it, viz. <tohpo> Nx '(short)' (314b), <hyy> Qn- '(few)' (351c), <'ino> Ql- '(small)' (352), <tapaa> Ql- '(near-by)', <syta> Ql- '(slightly)'. In its second occurrence after Qn- or Ql-, it has the allomorph //ci'oi//; in all other environments, the allomorph //ci'// occurs. (For the circumstances which make necessary the allomorph //ci'oi//, see 227e and <htu> qN 319b.)

puhku h ci' Nf dog/pet-dim. .

poihpoi h ci' Nf Poihpoi-dim

<ny my h ci'> //nyyhoi'// Np I-dim.

ma hu h ci' Nd that-dim.

ha qeñ h ci' Nh who/someone-dim.

ma hka hu h ci' Na: Od that-dim.-obj. (329, 337a)

tuwah pi' Nf child (316b, 333)

tuwahpi'hei' Nf child-dim.

tuwahpi'hei'hei' Nf child-dim.-dim.

owaa'hei' Nf baby

owaa'hei'hei' Nf baby-dim. this form appears to  
be interchangeable with:

owaa'owaku'hei' Nf baby-dim. (331a)

<hyyhpi' h ci'> //hyypi h ci'// Nf old woman (318f)

<Rh hyyhpi' h ci' h ci'> //Rh,,h hyypi h ci' h ci'//  
Nf old woman-distr.-dim. (382)

//Rh,,h cuku' h ci' h ci'// Nf old man-distr.-dim.

tohpohci'hei' Nf<sup>~</sup> occurs only in:

tohpohci'hei'ni Q1 short (314b, 355, 396b)

<hyyhci'hei'> //hyyhci'hei'i// Qn few (351c)

//i'inohci'hei'i// Q1 small (352)

//tapaahci'hei'i// Q1 nearby (352)

kita' nNh mild pejorative does not carry as strong a  
pejorative sense as <kyhna> nNh,Nr(P) (see  
below); can be translated by such expressions  
as 'that old ..., that darn ...'

puhku h kita' Nf darn dog

qahnihpaahna' h kita' Nf darn bell (227e)



kyhna nNh, Nr(F) strong pejorative (as Nr, 'semen')

This morpheme has a stronger pejorative force than <kita'> nNh. As with some English words, its use is not considered very polite in mixed company, although it often is used under these circumstances if the speaker is forgetful, angry, or daring. It can be rendered in English as '(that) damn ...'.

puhku h kyhna Nf that damn dog

'ihsa' h kyhna Nf the damn coyote

The remaining members of nNh have a specialized use as mild pejoratives; each of them occurs in this function with one or a few members of Nf containing the distributive prefix <Rh> Pd (382). Each of the forms in which these morphemes have been found in this function <sup>is</sup> ~~are~~ given in the examples below. As pejoratives they are about as strong as <kita'> nNh, or perhaps a little stronger, but they also carry a humorous touch, and indicate that the speaker is making fun of the persons denoted by the preceding stem as often as they indicate that he is angry with them. One of these morphemes occurs also with a member of Nu; another occurs also as a member of Nr.

qo'jo nNh<sup>x</sup> with <Rh hyyhp1' h ci'> //Rh,,h hypi h ci'//  
 Nf 'old woman-distr.' (204e., 318e), <Rh tuwah  
 pi> //Rh tuwah pi'// Nf child-distr. (316b, 333),  
 <Rh tuwah pi h ci > Nf child-distr.-dim.,

<ahqa> Nu 'red'

//Rhhyhpihci'hqo'jo// Nf those darned old women!

//Rhtuwahpi'hqo'jo// Nf those darned kids!

//Rhtuwahpi'hci'hqo'jo// Nf those darned kids!

ahqahqo'jo Nf strawberries

poci nNh̄, Nr(P) (as Nr, 'navel'); as nNh̄, occurs

with <Rh sy'a> Nf 'girl-distr.'

Rhsy'ahpoci Nf those darned girls!

pa'wo nNh̄ with <Rh cuku'> //Rh,,h cuku'// Nf 'old  
man-distr.'

//Rhcuhku'hpa'wo// Nf those darned old men!

//Rhcuhku'hpa'wohkyhna// Nf those damned old  
men!

juhki' nNh̄ with <Rh na'a my> //Rh na'a a..// Nf  
'boys-distr.'

//Rhnaa'ahjuhki'// Nf those darned boys!

336. nNm. This class contains one member, which occurs with Nd and certain members of Nf, the constitutes being Nd or Nf respectively.

<my> nNm animate plural

This morpheme occurs with members of Nf which refer to people, occasionally with members of Nf referring to animals, and with Nd when they refer to people or, less commonly, when they refer to animals. The use

of <my> nNm in speaking of more than one person or animal is optional; it is used very commonly, perhaps usually, with nouns referring to people when more than one is involved, but very rarely with animals where more than one is involved. It is often used together with the distributive prefix <Rh> Pd (382). With certain forms there is a special usage: <tuwah pi> Nf 'child' (316b, 333) rarely if ever occurs with <my> nNm in utterances in which children are referred to, but it does (always or nearly always) occur with <Rh> Pd; <sy'a> Nf<sup>-</sup> 'girl' (318e) never occurs without <Rh> Pd, and rarely if ever occurs with <my>; <na'a> Nf<sup>-</sup> 'boy' (which is usually followed by <ci'> nNh<sup>+</sup> 'dim.')

generally occurs with both <my> nNm and <Rh> Pd when boys are referred to; <nana> Nf 'man' always (or nearly always) occurs with <my> nNm when men are referred to, but can occur with the distributive prefix as well; for old men and old women, <cuku'> and <hyyhpi' h ci'> respectively, the distributive prefix and not the plural morpheme is generally used. When occurring in the same form with nNh, the latter precedes <my>, except after <nana> Nf 'man', <na'a> Nf<sup>-</sup> 'boy', and combinations of Pp and <tuwah> Nr(P,pi') 'child, offspring, son'.

<my> nNm has the allomorph //my// occurring everywhere except with the forms <nana> 'man' and <na'a> 'boy'. With these, it has the allomorph //a.// (204e).

qohsoo'moho my Nf Southern Sierra Miwok-pl. (216a)  
 sipihtyŋmy Nf Northeastern Monos; Mono Lake Paiutes  
 (2251)

qanaaqa'my Nf Negroes (227c)

<Rh na'a my h oi'> //Rhnaa'ahci'// Nf boys

<nana my> //naana// Nf men

//Rhnaana// Nf men

<'a tuwah my h oi'> //'ahtuwahmyhoi'// Nf her  
 children (321a)

337. nO, hO. These two classes occur only as ICs of "objective substantive expressions". Their distribution is more precisely defined below.

a. nO. This class contains one member, which occurs in IC with preceding Nf and Nq; it also occurs in trinary constructions with Np plus o, Nd plus o, and H plus o (329, 436). The constitutes are "objective substantive expressions" Of, Oq, Op, Od, Oh; the cover symbol O is used to include all members of these five classes.

<Na> nO 'obj.' has the allomorph //a// when immediately preceded by <hka> o '(obj.)' (329), and the allomorph //ku// when occurring after <htu> qN (319b); the combination of this morpheme with <hna> vNr 'act/object of ...ing' (319a) has

the portmanteau morph //hna//; the allomorph  
//Na// (217) occurs elsewhere

<ny my hka Na> //nymykaa// Op me (321a, 323)

mahkahuNa Od that-obj. (325, 326, 211a)

mahkahumyNa Od those-obj. (336)

<ha hka Na> //hahkaa// Oh whom, someone-obj. (327)

<cawu htu Na> //cawu h ku// Oq good-obj.

<waha htu Na> //wahahku// Oq two-obj.

<°a mija hna Na> //°ahmijahna// Of his/her/its  
departure/destination-obj.

wijahpYNa Of (black) oak-obj. (217b)

puhkuNa Of dog/pet-obj.

nopihNa Of house-obj. (224c)

b. n0. This class contains two members, which occur only with <ha> H 'interrogative-indefinite' (327) or with <tu°i ha> H 'any'. The morpheme <ha> H has the allomorph //h// when followed by h0.

eehti h0 occurs in

<ha eehti> //heehti// O what/something (as object  
of verb of saying)

//tu°ihehti// O anything (as object of verb of  
saying)

ihmaa h0 occurs in

//hihmaa// O what/something (not as object of verb  
of saying)

//tu°ihihmaa// 0 anything (not as object of verb  
of saying)

### 340 Locative Elements

340. Members of the class L (locatives) are given in 347. The other morphemes listed in this section, which fall into several classes, occur as constituents of locatives.

341. The three classes listed below contain one member each. The three morphemes involved are of very limited distribution; but they have in common the property of occurrence as constituents of forms belonging to class K. Class K consists of the forms which occur in IC with <hnaqweh> kL (346), the constitutes being locatives.

a. (Kt). This class contains a single morpheme, which occurs in IC with two members of Q1, <cawu> Q1,E 'good' and <°ohi> Q1~ '(left)' (354b).

tyh (Kt) only in

tyhcawu K only in

tyhcawuhnaqweh L only in

tyhcawuhnaqwehty<sup>x</sup> Nr(P) right<sup>s</sup>side<sup>x</sup>hand  
(319b)

tyh<sup>o</sup>hi K (223a) only in

tyh<sup>o</sup>hihna<sup>h</sup>qweh L<sup>x</sup> only in

tyh<sup>o</sup>hihna<sup>h</sup>qwehty<sup>ñ</sup> Nr(P) left side/hand

tyh<sup>o</sup>hihci Nf left-handed person (319a)

b. (Kh). The one member of this class occurs only with  
<pih> Pb<sup>3</sup> 'back' (385).

huh (Kh) only in

huhpih K only in

huhpihna<sup>h</sup>qweh L<sup>x</sup> (223a) only in

huhpihna<sup>h</sup>qwehty<sup>ñ</sup> Nr(P) back (as body  
part) (319b)

c. (Km). The one member of this class occurs only  
with <ha wuhtah> L 'in what/some direction' (327, 348b).

ma (Km) only in

hawuhtahma K only in

hawuhtahmahna<sup>h</sup>qweh L from what/some direction

342. K. This class consists of the forms which occur  
in IC with <hna<sup>h</sup>qweh> kL, the constitutes being L. There is  
one monomorphemic member in addition to the four forms given  
in 341.

sahqwe K only in

sahqwehna<sup>h</sup>qweh L<sup>-</sup> only in

sahqwehna<sup>h</sup>qwehty<sup>ñ</sup> Nf a side, one side (319b)

343. The three classes listed below contain morphemes which occur as constituents of members of pL. The class pL consists of forms which occur in IC with Pp, the constituents being locatives.

a. pK. This class contains one morpheme, which occurs only with <hnaħqweh> kL 'side' (346) and <tyh> x (343b).

qwaa pK only in

qwaahnahqweh pL beyond

qwaatyh (pL) only in

qwaatyhweeh pL beyond (348a, 213a)

b. x. This class contains one member, which occurs only with <qwaa> pK (343a).

tyh x only in

qwaatyh (pL) (343a)

c. (pL). This class contains three monomorphemic members (listed below) and three combinations of two morphemes: <qwaa tyh> (343a, b), <°i naħ> (325, 348o), and <°u naħ> (325, 348c). Members of (pL) occur in IC with xL (348o) and/or members of nL (348a), the constituents occurring as pL.

qope (pL), Nr(P) face as (pL), occurs in

qopenaħ pL in front of, ahead of (348o)

qopeweeh pL, L in front (of), ahead (of), before,

first (348a)



kwita (pL) only in

kwitanañ pL at the bottom of

kywa (pL) only in

kywapaah pL beside (but not touching) (348a)

kywatuheñ pL beside (and touching) (348a)

344. (pK). This class contains one member, which occurs with two members of D (325) and with <paah> nL 'by' (348a).

naah (pK) only in

\*inaah pK (325) only in

\*inaahnahqweh pL on this side of (223a, 346)

\*unaah pK (325) only in

\*unaahnahqweh pL on the other side of

naahpaah nL behind

nopih~naahpaah L behind the house (396b)

345. (L). This class contains a single member, which occurs only with <nañ> xL 'at, on' (348c). The constitute occurs in one construction as a member of L, but occurs also with <na> Pr 'reflexive' (321b).

typihi (L) only in

typihinañ L<sup>x</sup> only in

typihinañtyñ Nr(P) middle (2251, 319b)

//\*ahtypihinañtyñ// Nf its middle

<na typihi nañ> //nahtypihinañ// pL<sup>-</sup> in the  
 midst of, between occurs only  
 with those members of Pp which con-  
 tain <ni> pp 'plural' (322b)  
 //ʔaihnahtypihinañ// L in their midst,  
 between them

346. kL. The one member of this class occurs in IC  
 with preceding K, the constitutes belonging to class L, and  
 with preceding pK, the constitutes belonging to class pL.

hnañqweh kL

The forms in which this morpheme has been found  
 are given in 341-344.

347. L, pL. There are a number of morphemes which  
 either occur alone as locatives (class L) or occur with  
 members of Pp, the constitutes being locatives. These mor-  
 phemes are labeled L, pL and are given in 347b. In 347a are  
 listed those morphemes which occur as L but not as pL.

a. L. Of the various distributional properties which  
 characterize the class L, perhaps the following is best taken  
 as diagnostic: its members occur in IC with following <tyñ>  
 lN, vñf (319b), but not with other morphemes which occur with  
 V (319a, 370, etc.).

sipiñ L on the other side of the Sierra Nevada, far east

sipiñtyñ Nf that which is on the other side of the

Sierra Nevada; Northeast Mono, Mono Lake

Paiute

kwiwiñ L north

pihtah L in the Kings River drainage basin (or farther south), far south

(For the area between the San Joaquin River and the Kings River drainage basin, the form <ʔu nañ paah> L,pL 'on the other side' (325, 348c, 348a) is used.)

pihtahtyñ Nf that which is in the far south; Kings

River Mono (i.e. the Sycamore and

Woponoch tribelets)

typewuh L far below, in the San Joaquin Valley

ʔijoñ L here

ʔijañ L there

paʔañ L,nL on top (of)

b. The morphemes listed below occur alone as locatives or occur with members of Pp. The morphemes belonging to Pp have the allomorphs given as set 2 (321a) when followed by pI; <ni> pp 'plural' (322b) has the freely varying allomorphs //nih// - //ih// when followed by pL.

qwenaʔa L,pL distant, far (from)

nyqwenaʔa L far from me

//nopihNaʔahqwenaʔa// L far from the house

wahkihtah I,pL hither

wahkihtahtyñ Nf that which is on this side, or  
fairly close to here (relative to some-  
thing else being spoken of)

//<sup>o</sup>ahwahkihtah// L closer than him/her/it

pahmatyh I,pL uphill, upstream, up above (in the  
mountains but not in the air), near east

//<sup>o</sup>ahpahmatyh// L uphill (or the like) from him/  
her/it

petawih I,pL downhill, downstream, below (in the foot-  
hills but not in the San Joaquin Valley)  
has the allomorph //petá// when followed by  
<weeh> nL 'in, at' (348a)

//<sup>o</sup>ahpetawi// L downhill/downstream from him/her/it

petawihtyñ L that which is downhill/downstream

//petaweentyñ// L (seems to have the same use  
and meaning as the above form)

### 348. Locativizing suffixes.

a. nL. Members of this class occur in IC with Nf, Nq, Nd, Nh, Pp, and L, the constitutes being L. The morphemes belonging to Pp have the allomorphs given as set 3 (321a) when followed by nL; <ni> pp 'plural' (322b) has the allomorphs //ni//, //i// when followed by nL. The tactic juncture <~> occurs before nL after Nf, except after those members of

Nf which end in the morphemes <tyñ> vNf, lN (313a, b) and <hna> vNr (313a); the latter has the allomorph //h// when followed by nL. When occurring with Nd, members of nL precede the demonstrative base <hu> dN (326), which has the allomorph //huñ// in this construction.

paʔañ nL, L on top (of)

nypaʔañ L on top of me

//ʔapaʔañ// L on top of him/her/it

//mapaʔañhuñ// L on top of that (225k)

nopih~paʔañ L on top of the house (224a)

wahanañpaʔañ L one on top of the other (348c)

paah nL<sup>+</sup> by

This morpheme has the meaning "by" referring to location as well as to agency. In the latter use, it is always followed by <htu> qN (313b). In addition to the distribution which it shares with other members of nL, <paah> occurs with Qn, <ʔi nañ> (pL), L (325, 348c), <ʔu nañ> (pL), L, <kywa> (pL) (343c), and <naah> (pK) (344).

nypaah I by me

ʔety Nf gun, bow

cah tyhki ʔi Vt to fire (gun) (386, 362b, 371d)

na Pr reflexive

ʔety+nypaahhtu+nacahtyhkiʔihtl Iñ the gun was fired

by me

waha (n two

wahapaah L in two places, with reference to two  
places/things

\*ewapaah L in many places, with reference to many  
places/things

\*inañpaah L, pL on this side (of)

\*unañpaah L, pL on the other side (of); on the other  
side of the San Joaquin River

\*unañpaah Nf that which is on the other  
side; Auberry Mono (who live on the  
other side of the San Joaquin River)

kywapaah pL beside

naahpaah nL behind

weeh nL in, at

nyweeh L in me

nopih~weeh L in the house, at home

mija Vi to go

//h// allomorph of <hna> vNr (319a)

//\*i// allomorph of <ny> Pp I (321a)

//\*imijahweeh// L in my going, in/at my destination,  
because I went (216a, 213a)

nypa\*añ L on top of me

nypa\*añweeh L in on top of me (i.e. in the space  
above me) (213a)

nypa\*añweeh+johcihti IN flew over me (224b)

wynyhpY Nf tree

ʔahqah nL among

wynyhpYʔahqah L among the trees

wynyhpYʔahqahweeh L in among the trees (i.e. in  
the area among the trees)

wynyhpYʔahqahweeh+kihmahti IN came through  
the trees

<hmañ> nL on, by means of has the allomorph //mahmañ//  
when occurring with morphemes of class Pp ex-  
cept <ʔa> Pp 'third person' and with D except  
<ma> D 'that', and the allomorph //ahmañ//  
when occurring with <ʔa> Pp 'third person' or  
<ma> D 'that'; the allomorph //hmañ// occurs  
elsewhere

nopih~hmañ L on the house

wihi Nf knife

tohqopa Nt to cut

wihi~hmañ+ʔatohqopa Vi to cut it with a knife

<ny hmañ> //nymahmañ// L on me (216a)

<ʔa hmañ> //ʔaahmañ// L on him/her/it, by means of  
it

<ma hmañ hu> //maahmañhuñ// L on that, by means of  
that

tukañ nL to, into, through

nopih~tukañ L to the house

wono~tukañ L into the burden basket (231a)

nāpīh~paʔaḥ L on top of the house

nōpīh~paʔaḥtukuḥ L to the top of the house

ʔahqah nL among, within

wynyhpY~ʔahqah L among; the trees

ʔiwooh~ʔahqah L in my hair

//ʔahnyhny~ʔahqah// L within his body, a part of  
his body

<tuheḥ> nL<sup>+</sup> under occurs also with <natoʔo> Nf 'shirt'  
and <qahnihsuʔju> Nf 'trousers', with the  
allomorph //tuhih//, and with <kywa> (pL)  
(343c); the allomorph //tuheḥ// occurs in all  
environments except the two just mentioned

nōpīh~tuheḥ L under the house

//tuhihqahnihsuʔju// Nf underpants

//tuhihnatoʔo// Nf undershirt

kywatuheḥ pL beside (and touching), right next to

wūh nL<sup>-</sup> at occurs only in certain place names

caʔahtiniwū L at Caʔahtini

b. dL. This subclass contains two members, one of  
which occurs with two members of D (325) and with H (327),  
the other with <ʔi> P only.

<wuhtah> dL in ... direction has the allomorph //uhtah//  
when occurring after <ʔu> D 'that'

<ʔu wuhtah> //ʔuhtah// L in that direction

ʔi:uhtah I in this direction



hawuhtah L in what/some direction

peñ dL<sup>-</sup> occurs only with <'i> D 'this'

'ipeñ L right back here

c. xL. This class contains one member, which occurs with members of several different classes, as specified below.

<nañ> xL at, on

This morpheme occurs with Nf, Nr, H, (L), (pL), <pih> Pb<sup>+</sup> 'back, buttocks', D, two members of L, and at least one member of Qn. It has the allomorph //hnoh// when occurring after <ha> H (327), and the allomorph //hnoñ// when occurring after <'ihoñ> L 'here' or <ma> D 'that'; the latter has the allomorph //maa// when occurring with <nañ> xL.

pojo Nf road

pojo nañ L on the road

hsu F staying, still, precisely (395)

pojo nañ hsu L along the road (225k)

typih Nr(pY) ground, dirt, land (311b)

typih nañ L on the ground

pawaha Nr(pY) meadow (311b)

pawaha nañ L in the meadow

ha H what, something (327)

<ha nañ> //ha hnoh// L where, somewhere

typihi (L) (middle) (345)

typihi nañ L̄ at the middle occurs only with <na>

Pr (which has the allokene //nah// when occurring with it) and <tyñ> vNf, lN (319b)

//nah typihi nañ// pL̄ in the middle of (345)

typihi nañ tyñ Nr(ṛ) middle

<pih> Pb<sup>+</sup> back, buttocks (385)

pih nañ nL,T- behind, after (see also 356c)

<ʔi> D 'this', <ʔu> D 'that'

ʔi nañ L,(pL) here, on this

ʔi nañ paah L,pL 'on this side (of)

ʔu nañ L,(pL) there

ʔu nañ paah pL,L on the other side (of)

ʔu nañ paah tyñ Nf that which is on the other side; Auberry Mono (who live on the other side of the San Joaquin River from North Fork)

<ma> D that

<ma nañ> //maa hnoñ// L there

ʔijoñ L here, ʔijañ L there

//ʔijoñ hnoñ// L here

ʔijañ nañ L there

waha Çn two

waha nañ L̄ has been found only with <paʔañ> L,nL

'on top (of)'

waha nañ paʔañ L one on top of the other (as  
two knots tied in a string)

qope nañ pL in front of, before (343c)

kwita nañ pL at the bottom of (343c)

### 350 Miscellaneous Adverbial Elements

350. In this section are listed members of the following classes which, together with L (340) fall under the loose heading of "adverbs": Q (354), T (357), Aq (359a), Am (359b). Included also are a number of morphemes which occur as constituents of Q (351-353, 355) and T (353, 356, 358). The class Q contains the three subclasses Qn "quantitatives", Ql "qualitatives", and Qc <cynkwyta>; the last has only one member.

#### 351. Constituents of Qn.

a. (Qn). This class contains three morphemes of specialized distribution, each of them occurring with a single member of Qn.

naa (Qn) twice only with <pahi> Qn 'three'

naapahi Qn six

taah (Qn) (seven) only with <synay> Qn<sup>x</sup> 'one' (which

has the allomorph //cywy// when occurring  
with it)

//taahcywy// Qn seven

wooh (Qn) (eight) only with <sywy> Qn<sup>x</sup> 'one'

woohsywy Qn eight (216a)

b. qQn. This class contains a single member, which  
occurs in IC with nine members of Qn, as indicated below.

mano qQn decade

<sywy man> //syymano// Qn ten (216a)

<Rh sywy mano> //Rh,,<sup>o</sup> syy mano// Qn ten by ten

wahamano Qn twenty

pahimano Qn thirty

wacymano Qn forty

manykimano Qn fifty

naapahimano Qn sixty (351a)

//taahcywymano// Qn seventy (351a)

//woohsywymano// Qn eighty (351a)

qwanyhkimano Qn ninety

c. Qn-. This class contains one member, which occurs  
only followed twice by <ci'> nŋh<sup>+</sup> 'diminutive' (335), each  
time with the tactic juncture <h> (which always precedes  
members of nŋh) intervening. <ci'> has the allomorph //ci'i//  
in its second occurrence after this morpheme.

hyy Qn- only in

<hyy h ci' h ci'> //hyyhci'hci'i// Qn few

352. Q1-. The three members of this class are like <hyy> Qn- (above) in their occurrence with <ci'> nNh<sup>+</sup>, but the constituents are Q1 rather than Qn.

?ino Q1- only in

<?ino h ci' h ci'> //?inohci'hci'i// Q1 small

tapaa Q1- only in

//tapaahci'hci'i// Q1 nearby

<syta> Q1- has the freely varying allomorphs

//syta//~//hyta//

//sytahci'hci'i//~//hytahci'hci'i// Q1 slightly,  
a little bit

353. The classes labeled (-A) and hA contain one member each. The forms in which they occur as ICs belong to more than one class of adverbs.

a. (-A). The one morpheme belonging to this class has been found with Q1 and with one member each of the classes pL, L, and T-.

' (-A) emphatic

cawu Q1,E good

cawu' Q1 very good

<ma ni hu> //manihi// Q1 like that (325, 355,  
326)

//mani'hi// Q1 just like that

kywapaah pL beside  
 kywa'paah pL<sup>-</sup> beside (and very close to) usually  
 occurs with <nohi> Pn 'very' (383)  
 nohikywa'paah pL next to, very close to  
 pa'añ L,nL on top (of)  
 pa'añ' L<sup>-</sup> only with <hsu> F 'precisely' (395)  
 pa'añ'hsu L quite on top  
 'ywi Vi to sleep  
 pa'añ'hsu+'ywi Vi to doze  
 pyty T- (after a while) (356a)  
 pyty' T- (pretty soon)  
 pyty'hsu T pretty soon (356c)

b. hA. The one member of this class occurs only with  
 H (327). The constitutives belong to both Qn and T.

ihno'o hA only in

<ha ihno'o> //hihno'o// Qn,T as Qn: how many,  
 some; as T: when, sometime  
 //tu'ihihno'o// Qn,T as Qn: any amount; as T:  
 anytime

354. Q. This class comprises the three subclasses Qn,  
 Ql, and Qc.

a. Qn, quantitatives.

<syny> Qn<sup>x</sup> one

Unlike other quantitatives, this morpheme does not

occur in IC with <htu> qN,1N (319b). However, it occurs with several morphemes with which other members of Qn do not occur, viz. <h..> qN<sup>-</sup> (319b), <na> Pr 'reflexive' (321b), <taah> (Qn) '(seven)' (351a), <wooh> (Qn) '(eight)' (351a), <hkutaa> qT<sup>-</sup> (358c). <symy> has allomorphs as follows: //sy<sup>?</sup>my// when occurring with <na> Pr (which has the allomorph //nah// in this construction); //syy// when occurring with <mano> qQn 'decade' (351b); //oywy// when occurring with <taah> (Qn) '(seven)'; //symy// elsewhere.

//syhmy'// Nf,Nq one

//nahsy<sup>?</sup>my// Qn all, entirely

//taahcywy// Qn seven

woohsymy Qn eight

symyhkutaa T always

//syymano// Qn ten

waha Qn two

pahi Qn three

<wacy> Qn four has the allomorph //wahcyhkwi// when occurring with <htu> qN,1N (319b), <paah> nL 'by' (348a), and <nahpy> qT times (358c); the allomorph //wacy// occurs elsewhere

manyki Qn five

qwanyhki Qn nine

?ewa Qn many

qatu<sup>?</sup>u Qn,Aq,E none, not, no (see also 359a, 392b)

## b. Q1, qualitatives.

<cawu> Q1, E good has the allomorph //coo// when immediately followed by V or N'; the allomorph //cawu// occurs elsewhere

ʔywi Vi to sleep

//coohʔywi// Vi to sleep soundly (396a)

pa.hkwi Nf, Nbr fish (311a)

//coohpahkwi// Nf trout

papa Q1 large

typici Q1 great, important

woqo Q1 thick

takiʔaʔa Q1 thin

ʔyty Q1 long, tall

syhta Q1 bad

toki Q1<sup>+</sup>, E right, sufficient, appropriate (see also 392b)

This morpheme, unlike the other qualitatives (with the exception of <hohma> Q1<sup>x</sup>), occurs with Pp (or may occur without Pp). Morphemes of class Pp have allomorphs of set 4 (321a) when occurring with <toki>.

//ʔitoki// Q1 right for me, enough for me

ʔatoki Q1 right for him/her, enough for him/her



hohma Ql<sup>x</sup> over, above, larger than

This morpheme occurs only in IC with Pp (allomorphs of set 4), the constitutes being Ql. This feature of distribution is shared only with <toki>.

<ny hohma> //<sup>o</sup>ihohma// Ql larger than me  
 //<sup>o</sup>yihohma//\_//<sup>o</sup>ynihohma// Ql larger than y'all  
 <ny hohma htu> Nq (319b)

//<sup>o</sup>i hohma h weeh// L in the space above me  
 <cihpa' + no pih Na + <sup>o</sup>a hohma htu weeh + johci hti>  
 //cihpa'+hohpa'Na+<sup>o</sup>ahohmahweeh+johcihti// IN  
 the bird flew over the house

<<sup>o</sup>hi> Ql<sup>-</sup> (left)

This morpheme occurs only in IC with <tyh> (Kt) (341a), which, in turn, occurs only in IC with <<sup>o</sup>hi> Ql and <cawu> Ql,E. Since <<sup>o</sup>hi> shares this feature of distribution with <cawu> Ql, which is more widely distributed as a member of class Ql, it is classed as a limited member of Ql.

<tyh <sup>o</sup>hi> K left only in

<tyh <sup>o</sup>hi hnahqweh> L<sup>-</sup> (346)

tyh<sup>o</sup>hihci Nf left-handed person (319a)

c. Qc. This class contains a single member.

<cyhkwyta> Qc with effort, hard

This morpheme is similar to Ql in its occurrence in verbal expressions (474a), but is unlike Ql in not

occurring with <htu> qN,1N. Instead, it occurs with <hpY> qcN (313b), (which occurs only with <cyhkwyta> Qc).

<poho ha> Vi to run  
 cyhkwyta + pojo ha Vi to run hard  
 cyhkwytahpY Nf a person with a great deal of  
 stamina or physical endurance

355. nQl, qualitativizing suffixes. The three morphemes of this class occur in IC with N' (303g), the constitutes being Ql. Two members of nQl have a somewhat wider distribution, as noted below. The tactic juncture <~> (396b) occurs before nQl after N', except those members of Nf which end in <tyñ> vNf,1N (319a, b).

<ni> nQl like

This morpheme occurs in IC with N', Nd, Nh, Pp, and Pr. Morphemes of Pp have the allomorphs of set 3 when occurring with <ni>. <ni> has the allomorph //mahani// when occurring with <na> Pr 'reflexive' (which has the allomorph //naʔ// when occurring with <ni>), and the allomorph //maʔani// when occurring with Pp. The allomorph //ni// occurs elsewhere.

nopih~ni Ql house-like

toja~ni Ql like a mountain

<mah pih> //mah ~ja// Nr(P,pi) hand, glove

//mah~ja~ni// Ql like a hand

ʔuhu Nd that

<ʔu ni hu> //ʔunihi// Q1 like that

//ʔini'hi// Q1 just like this

<ma ni htu Na hu> //ma ni h ku huñ// Oq like that-obj.

hageñ Nh who/someone (327, 328)

hageñ~ni Q1 like whom/someone

<ʔa ni> //ʔamaʔani// Q1 like him/her/it (216a)

//ʔyhmaʔani// Q1 like thee

<na ni> //naʔmahani// Q1 like itself, like each

other

ho nQ1 with, accompanied by

This morpheme occurs with N', Nh, and Pp. The  
constitutes occur only with <htu> qN,1N (319b).

poihoi Nf masculine name

poihoi~ho Q1~ with Poipoi

poihoi~hohtu+kihmahti IN he came with Poipoi

tyyhna~ho Q1~ with meat

<tyyhna ~ ho htu Na + ʔeki h.. tyñ> (371a)

//tyyhna~hohku+ʔehkityñ// IN eating acorn and

meat

hageñ~ho Q1~ with whom/someone

nyhohtu Nq (one who is) with me

ke nQ1 having

This morpheme has been found only with N'. The  
constitutes occur only with <htu> qN,1N (319b).

nopih~ke Ql~ house-having

<nopih~kehtu> Nq house-having (one)

qwaci Nr(P) tail

<qwaci~kehtu> Nq tail-having (one)

<?yty htu Na + qwaci ~ ke htu> Nq having a  
long tail (454)

356. Constituents of T. This class includes morphemes of specialized distribution which occur as constituents of temporals. One of them occurs also by itself as a temporal.

a. T-. The members of this class occur in IC with <hsu> (T):

japi?i T- only in

japi?ihsu T immediately, quickly

?uno?oho T- only in

?uno?ohohsu T formerly (231a)

pyty T- occurs with <hsu> (T) and with <'> (-A) (353a)

pytyhsu T after a while

pytu' T- only with <hsu> (T)

pyty'hsu T pretty soon

mowahu T-,T as T: now, soon

The constitute of this morpheme with <hsu> (T) has a portmanteau same (see example). This is the only morpheme occurring with <?uhsu> t (356b).

mowahuhsu T tomorrow morning, the next morning;

tomorrow, the next day

mowahu<sup>o</sup>uhsu T- only with <hsu> (T)

mowahu<sup>o</sup>uhsuhsu T early tomorrow morning, early  
the next morning

b. t. This class contains a single morpheme, which occurs only with <mowahu> T,T- 'now; (tomorrow morning)'.  
<sup>o</sup>uhsu t only in

mowahu<sup>o</sup>uhsu T- only in

mowahu<sup>o</sup>uhsuhsu T early tomorrow morning

c. (T). This class contains a single member, which occurs with T-, the constitutes being members of T.

<hsu> (T) occurs only with <pih naña> nL,T- 'after',  
(385; 348c), <japi<sup>o</sup>i> T-, <<sup>o</sup>uno<sup>o</sup>oho> T-,  
<pyty> T-, <pyty ' > T-, <mowahu> T-,T,  
<mowahu <sup>o</sup>uhsu> T-

pihnañhsu T again

For examples of the other constitutes, see above.

357. T, temporals. Unlike members of Q and L, the forms belonging to class T (with the exception of <mi<sup>o</sup>i<sup>o</sup>i>) do not occur with a following nominalizing suffix (319b).

mowahu T,T- now, soon (see also 356a)

<sup>o</sup>anikku T now, right now, immediately

<mi'i'i> T nowadays has the allomorph //mi'ih// when followed by <tyh> 1N,vNf (319b); the allomorph //mi'i'i// occurs elsewhere

//mi'ih// Nf those of nowadays, contemporaries  
 'apitaa T after a while, presently, later

'ano'oho T no longer

hmuu'ahci T formerly, in the old days (224d)

nohihmuu'ahci T a long time ago (383)

'oohnoho T then

### 358. Temporalizing suffixes.

a. nT. This class has one member, which occurs in IC with Nw (315). The constitutes occur as T or as Vi.

<wano> nT time has the allomorph //no// when occurring after <jypa> Nw 'autumn'; the allomorph

//wano// occurs elsewhere

toowano T,Vi (to be) wintertime

toqawano T,Vi (to be) nighttime

//jypano// T,Vi (to be) autumn

//jypanohpy// IN it has become autumn, autumn  
 has come (379b)

b. vT. This class contains two morphemes, which occur in IC with Vi or in a trinary construction with Pp and Vi. When they occur in IC with Vi alone, the 'actor' for this Vi is the same as that of the predicate with which the constitute

T occurs. When they occur with Pp plus Vi, the member of Pp identifies the 'actor' for this Vi; this construction occurs only when this actor is different from the one involved in the predicate with which the constitute T occurs.

hsi vT after ...ing, having ...ed

pihty Vi to arrive

pihtyhsi T having arrived

\*apihtyhsi T after he/she/it arrives/arrived

<puh ni> //puh ~ni// Vt to see

tyhyhta Na Of deer-obj.

tyhyhtaNa+puh~nihsi T having seen a deer

<ny my> //nyy// Np I

pahca Vt to kill (one being)

//tyhyhtaNa+nyy+puh~nihsi+\*apahcahti// IN having

seen a deer, I killed it

poihipoi Nf Poipoi (masouline name)

tai C indeed (393b)

<ny ni> //nii// Pp first person pl. excl.

pa hkwi ka kaa Vi to go fishing (367a, 377b)

//poihipoi~tai+niipahkwikakaahsi+pihtyhti// IN

Poipoi arrived after we had gone fishing

<neñ> vT while ...ing has the allomorph //na// when

occurring with Pp plus  $\ddot{y}$ i, and the allomorph

//neñ// when occurring in IC with Vi alone

pahkwikaneñ T while fishing

//niipahkwikana// T while we were fishing

c. qT. This class contains three morphemes, which occur in IC with Qn. Two of them occur with a single member of Qn each.

nahpy qT times

symynahpy T once

wahanahpy T twice

ʔewanahpy T many times

kanaa qT<sup>-</sup> only with <Rh symy> //Rh,,ʔ symy// Qn one  
by one, some

//Rhsyʔmykanaa// T sometimes, occasionally

hkutaa qT<sup>-</sup> only with <symy> Qn 'one'

symyhkutaa T always

359. The two classes Aq and Am contain one member each. One of these morphemes occurs in only two constructions (494), while the other has a very wide distribution.

a. Aq. The one member of this class occurs in IC with members of several classes in addition to its occurrence as a member of Qn and E. A complete analysis of its distributional properties has not been made, and its occurrence is not fully accounted for in chapter four. Some indication of the variety of environments in which it is found is furnished by the examples below.



qatu?u Aq, Qn, E not, none, no (see also 354a, 392b)

qatu?u+cawu Ql not good

//qatu?u+nyy+mijawai// IN I shall not go

//qatu?u+?ahmijahna// If his failure to go

qatu?u~tai+mahu+syjehty' IN he is not a coward

//qatu?u~po?o+nyy+mi?i?i+pahkwikahty'// IN but I

do not fish nowadays

qatu?u~po?o+hageñ+?asuhtapyha~ihtl IN but nobody

understands it

//qatu?u~po?o+nyyhkwa'+?asuhtapyha~ityñ// IN but

we do not understand it

Hahni?i+qatu?u+hageñ+?ahawatyñ IN why doesn't

anyone scold him?

qatu?u~tai~po?o+mahu+toqohqwa IN but that isn't a

rattlesnake

qatu?u+mahu+toqohqwani+sunawityñ IN that doesn't

look like a rattlesnake

//qatu?u~po?o+nyyhkwa'+?yihohutu+mijahnaahmatyñ//

IN but we don't feel like going with you

//qatu?u+niityyhkwiihty'hci'// If little one who

does not tell us

//qatu?u~tai+?ihimy+tytyyhkwiihty'// IN they do

not tell things

b. Am. The one member of this class occurs only with (1) those members of Nf which consist of Vi plus <tyň> vNf, lN (319a), (2) those members of T which consist of Vi plus <neň> vT (358b). The constituents are IM ("imperative expressions").

mino'o Am prohibitive

mino'o+mijatyň IM don't go!

mino'o+mijaneň IM don't go!

### 360 Verbal Elements

360. Included in this section are five classes of morphemes which can be referred to as verb roots (362-366), verbalizing suffixes (367), the one monomorphemic member of class U (361f), and five classes of morphemes which occur as constituents of U (361a-f).

361. The class of forms labeled U consists of those forms which occur in IC with the suffixes uV (367b). The forms occurring with uV are for the most part bimorphemic and, in general, occur only with these suffixes. The morphemes which are constituents of the forms U, except for <puh> Pb 'eyes' (385) and class Nu (312), are listed in 361a-e. One member of U has been found which is not segmentable and so is the only unit morpheme belonging to U. It is given in 361e.

a. nU. This class contains one member, which occurs in IC with preceding Nu (312).

<pono> nU has several allomorphs, as indicated by the following table:

| <u>Allomorph</u> | <u>Occurs with</u>  |
|------------------|---|
| //pono//         | puhi Nu blue/green<br>ʔahtyh Nu round<br>haky Nu foolish          |
| //pana//         | ʔahqa Nu red<br>ʔoha Nu yellow<br>ʔahca Nu brown<br>ʔehsi Nu gray |
| //taja//         | tohci Nu white  |
| //caja//         | nahqa Nu, Nr(P) ear   |
| //caʔa//         | topo Nu hill  |
| //ʔani//         | tuhmu Nu black  |
| //~jawa//        | toʔoh Nu, Nr(P) hole  |

puhipono U blue

puhiponoki Vi (sg.) to be blue (367b)

puhiponowa Vi (pl.) to be blue

ʔahtyhpono U round

hakypono U<sup>~</sup> only with h..h..ʔ..hka uV

//hahkyhpoʔnohka// Vi to act foolish

<ʔahqapono> //ʔahqapana// U red

//ʔohapana// U yellow, brownish yellow

- //<sup>o</sup>ahcapana// U tan, brown, copper-colored  
 //<sup>o</sup>ehsipana// U gray  
 //tochitaja// U white  
 //nshqacaja// U having long ears (used to describe  
                   rabbits)  
 //topoca<sup>o</sup>a// U peaked, pointed, in the shape of a  
                   hill  
 //tuhmu<sup>o</sup>ani// U black  
 //to<sup>o</sup>h~jawa// U having hole(s) (as a muddy road)

b. (U). This class contains one member, which occurs in IC with -U (351c), U- (351d), and at least one member of Nu (312), the constitutes being U. It precedes -U and follows U- and Nu.

<pata> (U) has the allomorph //hpahta// when occurring with <<sup>o</sup>oha> Nu 'yellow' (and perhaps other members of Nu, if it occurs with them); the allomorph //pata// occurs elsewhere

patakwini U naked

sihkipata U flat

<<sup>o</sup>oha pata> //<sup>o</sup>ohahpahta// U turning yellow (like  
                   leaves in autumn)

For further examples, see 361c.

c. -U. This class consists of the morphemes, except <<sup>o</sup>oha> Nu 'yellow', which occur in IC with preceding <pata> (U) (361b).

kwini -U only in

patakwini U naked

kwici -U only in

patakwici U shiny

qwaja -U only in

patsqwaja U long and narrow (as a fishing pole)

nuju -U only in

patanuju U straight (of a long object)

d. U-. This class contains one member, which occurs only with following <pata> (U) (361b).

sihki U- only in

sihkipata U flat

e. pU. This class contains a single member, which occurs only with preceding <puh> Pb 'eyes' (385), the constitute being a member of U.

~cimyty pU only in

puh~cimyty U having wide-open, sparkling eyes

puh~cimytyki Vi to have wide-open, sparkling eyes (216a)

puh~hclhmy<sup>o</sup>tyhka Vi to have wide-open, sparkling eyes momentarily (222, 367b)

f. U. One morpheme has been found occurring with uV which is unsegmentable on the basis of the material at hand. It is thus the only member of U which is not bimorphemic.

<jepeqono> U open (of a house or fence with regard to  
its windows, doors, or gate)

jepeqonoki V|to be open in one place

jepeqonowa V|to be open in more than one place

362a The classes V<sup>2</sup>a, V<sup>2</sup>x, Vr, Vr<sup>2</sup>, V<sup>2</sup>t comprise those morphemes which occur in IC with one or both of the members of vVr (371d): <Rhi> vVr 'durative', <?i> vVr 'punctual'. Most of these morphemes do not occur except with vVr, but there are a few which have a wider distribution: <myhna> Vr,Vi 'to turn over, change' (362c), <johci> Vr,Vi 'to fly, rise', <qawino> Vr,Vi 'to turn (one's head) back and forth', <qopi> Vr<sup>2</sup>,Vi 'to break (of supple object)' (362d), <qoti> V<sup>2</sup>x,Vx 'to break (of brittle object)' (362b), <tapo> V<sup>2</sup>x,Vx 'to strike'.

a. V<sup>2</sup>a. This class contains two members, which occur only in IC with <?i> vVr 'punctual', the constitutes occurring as vVa (auxiliaries).

tana V<sup>2</sup>a only in

tana<sup>2</sup>i vVa for good (signifies that the action denoted by the preceding stem is done with the intention or supposition that its result will be more or less permanent)

cuhpa Vi to sink, go down into (smthg.)

cuhpahtana<sup>ʔ</sup>i Vi to sink/go down for good

mijahtana<sup>ʔ</sup>i Vi to go away for good

kihmahtana<sup>ʔ</sup>i Vi to come to stay

mūhsu V<sup>ʔ</sup>a (231b) only in

mūhsu<sup>ʔ</sup>i vVa almost (signifies that the action  
denoted by the preceding stem almost  
took place, but didn't)

cuhpahmūhsu<sup>ʔ</sup>i Vi to nearly sink

hahkwihsa<sup>ʔ</sup>i Vi to sneeze

hahkwihsa<sup>ʔ</sup>ihmūhsu<sup>ʔ</sup>i Vi to almost sneeze

<kyh noo> //kyh <sup>ʔ</sup>noo// Vt to bite

//<sup>ʔ</sup>akyh<sup>ʔ</sup>noohmūhsu<sup>ʔ</sup>i// Vi to almost bite it

b. V<sup>ʔ</sup>x. The three known members of this class occur in IC with <<sup>ʔ</sup>i> vVr (but not with <Rhi> vVr), the constitutes being Vx. The class Vx consists of those forms which occur only with Pi (instrumental prefixes 386). Two members of V<sup>ʔ</sup>x occur also without <<sup>ʔ</sup>i> vVr.

qohtohtoo V<sup>ʔ</sup>x only in

qohtohtoo<sup>ʔ</sup>i Vx only with <cah> Pi 'pulling'

cahqohtohtoo<sup>ʔ</sup>i Vt to pull (someone's) hair

<qoti> V<sup>ʔ</sup>x, Vx to break (of brittle object) has the

allomorph //qohti// when occurring with <<sup>ʔ</sup>i>

and the allomorph //qoti// when occurring

with Pi

//cahqohti'ʔi// Vt to break (one brittle object)

//wyhqohti'ʔi// Vt to break (e.g. a pole) while  
whipping

//cihqohti'ʔi// Vt to break (e.g. a needle)

caqoti Vt to break (several brittle objects)

<~tapo> V'x, Vx to strike

This morpheme occurs in IC with <ʔi> and with <wyh> Pi 'with sidewise motion of long object'. The constitute <~tapo ʔi> occurs only in IC with <wyh> Pi. <~tapo> has the allomorph //~tahpo// when occurring with <ʔi>, and the allomorph //~tapo// when occurring with <wyh>.

<wyh~tapo ʔi> //wyh~tahpoʔi// Vt to strike (one  
blow, with whip-like motion)

<wyh~tapo> Vt to strike (several blows, with whip-  
like motion)

c. Vr. The roots labeled Vr occur in IC with <ʔhi> but not with <ʔi>. Two members of Vr occur also as Vi (without <ʔhi> or <ʔi>).

<johci> Vr, Vi to fly, to rise (from lying position)

This morpheme occurs with and without <ʔhi> with a subtle difference in meaning which is not clear.

<johci ʔhi> Vi occurs in a text where it refers to a large number of birds flying around, but it seems to be an archaic form, as <johci> not followed by <ʔhi> is ordinarily used in conversation regardless of the number



of the subject or manner of flying. <johoi> has the allomorph //joci// when occurring with <ɣhi>.

<myhna> Vr<sup>-</sup>, Vi to turn over, change has the allomorph //myhnaa// when not preceded by <cah> Pi and not followed by <ɣhi>, the allomorph //myhna// when preceded by <cah> Pi and not followed by <ɣhi>, and the allomorph //mynu// when followed by <ɣhi>.

//myhnaa// Vi to turn over (intrans.)

//mynu ɣhi// Vi<sup>-</sup> to turn over and over only with <cah> Pi 'pulling'

//cahmynuɣhi// Vt to turn (something) over and over

//cahmyhna// Vt to turn (something) over (once), to change or exchange (something)

siɣo Vr to slide (horizontally)

huju Vr to slide (downhill)

wojo Vr to be lined up (of several objects)

kwinu Vr to swing around, spin around (intrans.)

pyty Vr<sup>-</sup> has been found only with <cah> Pi 'pulling'

cahpytyɣhi Vt to unravel (rapidly) (as string wrapped around something)

qwahtunu Vr<sup>-</sup> has been found only with <cah> Pi 'pulling'

cahqwahtunuɣhi Vt to twist, roll (something) around

sutu Vr to spill (out of a container, of several small objects, or a finely divided mass)

kwynu Vr<sup>-</sup> has been found only with <cah> Pi

cahkwynuṛhi Vt to turn (something) around and around

tany Vr to ring (of a bell)

nuju Vr to crawl (of a snake)

qawino Vr<sup>-</sup>, Vi<sup>-</sup> only with <coh> Pb 'head'; as Vi<sup>-</sup>, only with <?..ki> vVp (373a)

cohqawinoṛhi Vi to turn the head back and forth

//cohqawi<sup>o</sup>noki// Vi to turn the head back and forth jerkily

pata Vr to chatter

kwipi Vr to shake, shiver

kyhmy Vr to move noisily, roar (of an automobile)

typy Vr<sup>-</sup> only in

typyṛhi Vi<sup>-</sup> has been found only in

wyhtypyṛhi Vt (bird) to flutter (its wings)

typyṛhi' Nf automobile (319a)

d. Vr<sup>o</sup>. Members of this class occur with both <?i> vVr and <ṛhi> vVr. The constituents are Vi.

<puti> Vr<sup>o</sup> to emerge, go or come out has the allomorph

//puhti// varying freely with //puti// when

occurring before <?i> vVr; the allomorph

//puti// occurs with <ṛhi> vVr

<puti ʔi> //putiʔi//~//puhtiʔi// V1 to emerge  
(once, of single object)

putiṚhi Vi to emerge (of several subjects one after  
another)

<qopi> Vrʔ,Vī to break (of supple object) has the  
allomorph //qohpi// when occurring with <ʔi>  
and the allomorph //~qopi// when occurring as  
Vī; the allomorph //qopi// occurs with <Ṛhi>  
qopiṚhi Vi to break (intrans. of several supple  
objects one after another)

<qopi ʔī> //qohpiʔī// Vī to break (one supple ob-  
ject, as a piece of string, in one place)  
has been found only with P1:

//cahqohpiʔī// Vt to break (smthg.) by pulling

//wyhqohpiʔī// Vt to break or out with whip-  
like motion of long object

//tohqohpiʔī// Vt to break with violent motion

//kyhqohpiʔī// Vt to break by biting

//~qopi// as Vī (not followed by <Ṛhi> or <ʔi>)  
to break (of several supple objects or  
one supple object in several places)  
has been found only with P1

wyh~qopi Vt to break (several things) with  
whip-like motion of long object

cah<sup>~</sup>qopi Vt to break (several things) by  
pulling (used also for picking  
berries from a bush)

<qwaca> Vr<sup>o</sup> to fall has the allomorph //qwahca//  
occurring with <'i>, and the allomorph  
//qwaca// when occurring with <Rhi>

<qwaca 'i> //qwahca'i// Vi to fall (of one object,  
a short distance)

qwacaRhi Vi to fall (of several objects, or one  
object a long distance, as a shooting  
star)

e. V<sup>o</sup>t. The members of this subclass occur with <'i>  
(but not with <Rhi>). The constitutes are transitive.

qapa<sup>o</sup>wo V<sup>o</sup>t<sup>~</sup> only in

qapa<sup>o</sup>wo 'i Vt<sup>~</sup> only with <mah> Pb 'with the hand'

mahqapa<sup>o</sup>wo'i Vt to slap in the face

cohki V<sup>o</sup>t<sup>~</sup> only in

cohki 'i Vt<sup>~</sup> only with <mah> Pb 'hand'

mahcohki'i Vt to pounce upon (as a cat)

tyhki V<sup>o</sup>t<sup>~</sup> only in

tyhki'i Vt<sup>~</sup> only with <cah> Pi 'by pulling' and  
<mah> Pb 'hand'

cahtyhki'i Vt to fire (a gun)

mahtyhki'i Vt to fire (a gun)

<wyna> V?t to move or throw (smthg.) (when occurring without Pi, has the meaning 'to throw'; constitutes of Pi with <wyna ?i> have portmanteau semes)

wyna?i Vt to throw (smthg.)

cahwyna?i Vt to knock (smthg.) down (213b)

cihtoowyna?i Vt to push (smthg.) (over)

wyhcihwyna?i Vt to crowd or push against

//tahwyna?i// Vt to throw (a rock)

<tyhty> V?t to tear

363. Vx. The members of this class occur only with Pi and so are indeterminate as to transitive or intransitive property, since all verb stems containing Pi as immediate constituent are transitive, regardless of the class to which the other IC belongs. The list which follows represents only a sample of the members of Vx.

<qoti> Vx, V?x to break (of brittle object) see 362b

<~tapo> Vx, V?x to strike see 362b

~qwapu Vx (to claw) only with <cah> Pi 'by pulling'

cah~qwapu Vt to claw

pakita Vx (to hit with fist) only with <toh> Pi 'with violent motion'

tohpakita Vt to hit with the fist

pahcuki Vx (to switch) only with <wyh> Pi 'with side-wise motion of long object'

wyhpahcuki Vt to switch

caa Vx (to like) only with <suh> Pi 'mentally'

suhcaa Vt to like

siqoota<sup>o</sup>i Vx (to scrape) only with <wyh> Pi

wyhsiqoota<sup>o</sup>i Vt to scrape

~wo<sup>o</sup>i Vx (to scratch) only with <cah> Pi

cah~wo<sup>o</sup>i Vt to scratch

pityna Vx (to drag) only with <cah> Pi

cahpityna Vt to drag

pihsita<sup>a</sup> Vx (to throw away) only with <wyh> Pi

wyhpihsitaa Vt to throw away

too Vx<sup>~</sup> only with <cih> Pi 'with point or end of long object'

cihtoo Vt<sup>~</sup> only with <na> Pr 'reflexive' or  
<wyna<sup>o</sup>i> Vt. (see 362e)

nacihtoo Vi to walk with the aid of a cane

qopa Vx (to cut) only with <toh> Pi

tohqopa Vt to cut

taaki Vx (to open) only with <cah> Pi

cahtaaki Vt to open (gate, door, or window)

364. Vi. Intransitive verb roots. This class consists of roots which occur with verbal suffixes (370) but not with

object forms. Some of them occur also as transitive verb stems or as auxiliary verbs (374). Vi is a very large class; the list given below represents only a sample of its members.

a. Types of motion (from one place to another).

mija Vi to go (away)

kihma Vi to come

<pihty> Vi to arrive has the allomorph //pity// when occurring with <hky'> vVt 'causative-benefactive', <hu> vVb 'momentaneously', <no> Pb 'dwelling' (385); the allomorph //pihty// occurs elsewhere; <pihty hky'> Vt has the portmanteau seme 'to fight (trans.)'

<pihty hky'> //pityhky'// Vt to fight with

<pihty hu> //pityhu// Vi to just arrive (at a given moment)

<no pihty> //nopity// Vi to arrive home

qooni Vi to return

nywi Vi, vVa (sg. subj.) to go/walk/move around (to no particular place), wander/roam around (see also 374f)

moo Vi (pl. subj.) to go/walk/move around, wander/roam around (see also 374b)

maapa Vi to go/come uphill

waawi Vi to go/come downhill

we'ni Vi to descend/get down (from an elevation)

cipuhi Vi to climb (up or out), ascend

munaa Vi to go/come to the top of a hill

kwyhmaa Vi to go over the top of a hill

<°ika> Vi to enter has the allomorph //~nika// when

occurring with Pi except <cih> Pi 'point';

the allomorph //°nika// occurs with <cih> Pi,

and the allomorph //°ika// occurs elsewhere

<cah °ika> //cah~nika// Vt to make (smthg.) enter,  
put (smthg.) inside (224a, 251)

<cih °ika> //cih°nika// Vt to put inside, insert  
(with a pointed object) (223a)

<ma °ika> //ma~nika// Vt to corner (one's prey)

cuhpa Vi to go/sink out of sight, to sink

johci Vi, Vr to fly, rise, get up (from bed) (see also  
362c)

b. Position and change of position (in one place).

<qahty> Vi, vVa (sg. subj.) to sit down, to be in sitting  
position, to stay has the allomorph //qaty//  
when occurring with <tyh> Pb 'rock', with  
//qahty// occurring elsewhere

<tyh kahty> Vi (rocks) to be in a row

jyhkwi Vi, vVa (pl. subj.) to sit down, to be in sitting  
position

<hapi> Vi (sg. subj.) to lie down, to be in lying posi-  
tion has the allomorph //tapi// when



occurring in compounds, with //hapi// occurring elsewhere

qwapi Vi (pl. subj.) to lie down, be in lying position

qohno Vi (pl. subj.) to stand up, to be in standing position (cf. <wynyh~>, 367a)

myta Vi to straighten/stretch out one's legs, to have one's legs straightened/stretched out

c. Types of activity.

nyha Vi to make coiled basketry

ty<sup>o</sup>na Vi to winnow

<pota> //pota// -//pohta// Vi to pound acorns

nyka Vi to dance

<sup>o</sup>ooki Vi to celebrate, to take part in fiesta/fandango

tyhka Vi, Vt to eat

hipi Vi, Vt to drink

jaqa Vi to cry/weep, utter sounds of lamentation; to give forth characteristic vocal sounds or calls (of animals)

<sup>o</sup>ohi Vi to cough

<sup>o</sup>ine Vi, Vt to talk, say

mihee Vi, Vt to say/assert/maintain

jatuha Vi to talk, converse

d. States, conditions.

syjee Vi, Vt to be afraid (of)

tyyja Vi, Vt to be terrified (of)

qahma Vi to be sick, to ache; to taste occurs very  
commonly as second member of compounds:

<cawu> Ql good

cawuhqahma Vi to taste good (396a)

qohi Nr(1) stomach

qohiqahma Vi to have stomachache

nahqa Nr(P), Nu ear

nahqahqahma Vi to have earache

naa'mihoi Vi to be tired, weary

'ywi Vi to be asleep, to sleep

<wahci> Vi to be lost, hidden has the allomorph

//wacih// when occurring in compounds;

//wahci// occurs elsewhere

<wahci ~a..> //wah~aci// Vtt~ to hide (oneself)

(371c) occurs only with <na> Pr 're-  
flexive' (321b), which has the allomorph

//na~/ occurring with <wahoi>

//na'wah~aci// Vt, Vi to hide oneself (from)

<hky'> vVt causative-benefactive

wahcihky' Vt to lose

tyky Vt to put, place

<wahci tyky> //wacihtyky// Vt to hide (smthg.)

jatuha Vi to talk

//wacihjatuha// Vi to whisper (214a)

### 6. Qualities.

- ʔytyʔy Vi to be hot  
 qwahsy Vi to be ripe  
 tujuha Vi to be full (of a container)  
 haʔwyhka Vi to be light (in weight)  
 nyʔnyhkwy Vi to be heavy  
 kutupa Vi to be smooth, slippery

### f. Miscellaneous.

<mai> Vi, vVa to become, be, do (see also 374b) has  
 the allomorphs //mai//, //mane//, partly in  
 free variation, partly conditioned; the exact  
 conditions have not been worked out

coqa Vi<sup>-</sup>, Vt<sup>-</sup> only with <mah> Pb 'hand'

mahooqa Vi, Vt as Vi: to put or have (one's) hand  
 doubled up in a fist; as Vt: to hold  
 tightly in the hand

naahma Vi, vVa to feel, feel like

sunami Vi to appear

naa Vi to grow, to stick out

<qopi> Vi<sup>-</sup>, Vr<sup>?</sup> to break (of supple object) occurs only  
 with <ʔhi> vVr, <ʔi> vVr (371d), <toh> Pi, or  
 <cah> Pi (385) (see 362d)

<myhna> Vi, Vr to turn over, to change occurs as Vi with  
 the allomorph //myhnaa// when not preceded by  
 <cah> Pi or followed by <ʔhi> vVr (see 362c)

pyha Vi<sup>-</sup> only with <ta> Pb 'sun, day, heavenly body'

tapyha Vi to get light (of the sky at dawn)

nopoto Vi<sup>-</sup>, Nbr only with <tah> //toh// Pb 'foot'

//tohnopoto// Vi, Nr(P) as Vi: to have legs curled  
up; as Nr: knee

ty Vi<sup>-</sup> only with <pytyh> Pa (384b)

pytyhty Vi<sup>-</sup> only with <hpy> vN 'product' (319a)

pytyhtyhy Nf new, young

365. Vt. Transitive verb roots. This class consists of morphemes which occur in IC with preceding Pp, O, Pr, Pt, the constitutes being Vi, plus a number of morphemes of limited distribution whose distribution, such as it is, is like that of other members of Vt. Some members of Vt occur also as Vi or as vVa (auxiliary verbs) (374b). Vt is a very large class; the list which follows represents only a sample of its members.

a. Physical activities performed upon objects concerned primarily with changing their condition.

coqo Vt<sup>-</sup> to smash only with <tyh> Pb 'rock' (385)

<tyh coqo> //tahcoqo// Vt to smash with a rock

caqa Vt<sup>-</sup> only with <tyh> Pb 'rock'

//tahcaqa// Vt to hit with rock (or other missile)

qwahti Vt to shoot (with gun or bow and arrow), to spear  
(salmon)

tona Vt to punch, pound, hammer

tana Vt to sting (of stinging insect)

pahca Vt to kill (one being)

goi Vt to kill (more than one being)

puuhi Vt to blow upon (with mouth)

poo Vt to cut (someone's) hair, to shear (sheep)

sono Vt to tan (hide)

teeqa Vt to paint

jyhkwy Vt to swallow

kuu Vt to bury

b. Movements, activities, or states concerned primarily with relationships between subject and object.

ʔeki Vt to serve acorn (mush, soup, or biscuits) to

capita Vt to be angry with

hawa Vt to scold

tyhkwii Vt to tell (somebody), say something to

jaa Vt to fail to encounter (someone) (at his house or  
other place where he was expected to be)

wekija Vt to meet

naki Vt to follow

kwihtaa Vt to go around, surround

maahta Vt to abandon, leave behind

nuʔa Vt, Vi only with <tah> Pb 'feet' (385)

tahnuʔa Vt, Vi to hunt small game

syjee Vt, Vi to fear, be afraid (of)

tyyja Vt,Vi to be terrified (of)

kyywi Vt<sup>-</sup> (to throw at) only with <tyh> Pb 'rock'

//tahkyywi// Vt to throw at (with rock or other  
missile)

howai Vt to miss, fail to hit (something shot at or  
thrown at)

wyy Vt to catch, to hold in the hand, to get

cee Vt to hold (something) still in a place the con-  
stitute <tah cee> of <cee> with <tah> Pb 'feet'  
has the portmanteau seme 'to overtake, catch  
up with '

hita Vt to hold or carry in the arms

c. Activities concerned primarily with changes in the  
position or status of the object:

tyky Vt,vVa to put, place (see also 374b)

<noo> Vt,vVa to carry (from one place to another) on the  
back, to haul; (other allosemes when occurring  
with Pi, Pb as indicated in the examples)  
has the allomorph //ʔnoo// when occurring  
after <pih> Pb<sup>+</sup>, <kyh> Pi, <toh> Pi, <cah> Pi,  
<cih> Pi; the allomorph //noo// occurs  
elsewhere

<pih> Pb<sup>+</sup> back, buttocks

<pih noo> //pihʔnoo// Vt to have (e.g. child) riding  
behind one on a horse

pa Pb water

panoo Vt to haul water

<kuh> Pb wood (allomorph //qoh//)

//qohnoo// Vt to haul wood

<toh> Pi with violent movement

//toh<sup>o</sup>noo// Vt to hit (with arrow, bullet, or  
other missile)

<kyh> Pi by biting

//kyh<sup>o</sup>noo// Vt to bite, to carry in mouth

<cah> Pi by pulling

//cah<sup>o</sup>noo// Vt to catch (fish); to pull up or out

cawa Vt<sup>-</sup> only with <pa> Pb 'water, liquid'

pacawa Vt to pour (liquid)

tuhta Vt to fasten/wrap (baby) in basket cradle

maa Vt to get/obtain, to ask for

This morpheme occurs very often as second member  
of compounds of which first member is N':

\*etyh Nf bow, gun

\*etyhmaa Vi, Vt to ask for/get a gun (from)

tyyhna Nf meat

tyyhnamaa Vi, Vt to get/ask for meat (216a)

naho<sup>o</sup>mi Vt to buy

weni Vt to sell; the constitute of <weni> with <wyh> Pi

'with sidewise motion of long object' has a  
portmanteau seme:

wyhweni Vt to hang up (213a)

d. Perception and activities concerned with perception.

maaci Vt<sup>-</sup> only with <puh> Pb 'eyes'

puhmaaci Vt to recognize

hai Vt<sup>-</sup> only with <puh> Pb 'eyes'

puhai Vt to look for (223a)

wa<sup>o</sup>i Vt to find

nahqa Vt,Mr(P) to hear (occurs as Mr with the meaning  
'ear')

e. Miscellaneous.

majaa Vt to make, fix, prepare

matyhka Vt,vVa to finish

manahqa Vt,vVa to try

waqa Vt to say (smthg.), to talk to (somebody)

<<sup>o</sup>ine> Vt,Vi to say (smthg.) has the allomorph

//<sup>o</sup>inee// when occurring after <na> Pr

'reflexive'; the allomorph //<sup>o</sup>ine// occurs

elsewhere

//na<sup>o</sup>inee// Vt,Vi to say to oneself

366. Vtt. Double-transitive verb roots. The verb  
rppts of this class occur with two objects.

tywy Vtt to ask (someone) for (smthg.)

kija Vtt to give (someone) (smthg. other than food or  
drink)



<mahqa> Vtt to give (someone) (smthg. to eat or drink)

This morpheme occurs very commonly in compounds with preceding N', the constituents being Vt. It has the allomorph //<sup>o</sup>maqa// when occurring with <pa> Pb 'water', and the freely varying allomorphs //~wahqa//~ //hmahqa// when occurring after N'; the allomorph //mahqa// occurs elsewhere.

//pa<sup>o</sup>maqa// Vtt to give (someone) (something to drink)

//tyyhna~wahqa//~//tyyhnahmahqa// Vt to give meat to

//wijah~wahqa//~//wijahmahqa// Vt to give acorns to

nohqqa Vtt to steal (smthg.) from (someone)

367. Verbalizing suffixes. (See also <wano> nT 358a.)

a. nVi, nVt. These morphemes occur with N'.

tu nVi, nVt to make (one item of what the preceding stem denotes)

papotu Vi, Vt to make a braid, to braid (231a)

<no pih> Nf house (311c)

nopihtu Vi to build a house

hupija Nf music, song

hupijatu Vi to sing, play music

nawi nVi, nVt to make (several items of what is denoted  
by the preceding stem)

nopihnawi Vi to build several houses

ka nVi to gather, get

wijah Nf acorns, black oak acorns

wijahka Vi to gather acorns (211a)

toohpo Nf sp. mushroom

toohpoka Vi to gather sp. mushrooms

jee nVi to be or play the role of (the type of being  
denoted by the preceding noun stem)

wahqeehnu' Nf cowboy

wahqeehnu'jee Vi to be a cowboy

\*a'neehca' Nf insane person

\*a'neehca'jee Vi to be insane

\*yny' Nf fearful/strange being; white man

\*yny'jee Vi to have a venereal disease

<ja> nVi to put on, to wear (the article of clothing  
denoted by the preceding noun stem) has the  
allomorph //a// when occurring with <tah  
pihsona> Nf 'socks', with //ja// occurring  
elsewhere

//tahpihsonaa// Vi to put/have socks on

mohqo Nf shoes

mohqoja Vi to put/have shoes on

cahqeeta' Nf jacket

cahqeeta'Eja Vi to have/put jacket on

tuwa nVi to become, to become like (what is denoted by preceding noun stem)

nyyhmy Nf Mono, Indian, human being, body

nyyhmytuwa Vi to become human

<kuh ~nah> Nf wood (311c)

kuh~nahtuwa Vi to become stiff (of a corpse)

~a nVi~, nVt~ to engage in the type of activity appropriate to or characteristic of (what is denoted by preceding stem) has very limited distribution:

puha Nf supernatural power

puha~a Vt to bewitch

mana Nr(P) fuzz (of peaches, hazel nuts)

mana~a Vt (fuzz) to irritate (the skin)

nypa Nr(pi) snow

nypa~a Vi, Vt to snow (on)

pakynah~a Vi to be foggy

ki nVt~ only in

sihi Nr(P) intestines

sihiki Vt to remove intestines of (animal)

?i nVi to perform the activity appropriate to (what is denoted by the preceding stem)

typyhsi Nf fish-fly

typyhsi?i Vi to fly-fish

paatate' Nf preacher, minister, devout person

paatate'?i Vi to go to church, worship God

na nVt̄ only with <jehnihpa'> Nf 'poison'

jehnehpa'na Vt to poison

wi nVī only with <tyja> Nf 'grave'

tyjawi Vi to die

ha nVī, nVt̄ only with <pojo> Nf 'road' and <no pih>  
Nf 'house'

pojoha Vi to run

nopihha Vt to pack (articles of one's belongings,  
preparatory to moving)

nVī, nVt̄ only with <no pih> Nf 'house', <wynyh> Nt  
'tree', and <nyhkweh> Nr(pe) 'wind'

nopih̄ Vi to dwell, to camp

wynyh̄ Vi to stand (of sg. subj.)

nyhkweh̄ Vi, Vt (wind) to blow (on)

b. uV. This class contains three morphemes, which occur only with U (361). The constitutes are Vi.

ki. uV to be ... in one place, or of one subject

puhipono U blue

puhiponoki Vi (sg. subj.) to be blue

jepeqono U open (of house or fence with regard  
to its windows, doors, or gate)

jepeqonoki Vi to be open in one place (i.e. with  
regard to one window, door, or gate)

wa uV to be ... in several places, or of several subjects

puhiponowa Vi (pl. subj.) to be blue

jepeqonowa Vi to be open (in several places)

h..h..?..hka uV to be ... momentarily or in one small  
or isolated spot has another alloeme occur-  
ring with <haky pono> U, which occurs only  
with this suffix:

//hahkyhpo'nohka// Vi to be foolish, silly (211a)

patakwici U shiny

//pahtahkwi'cihka// Vi to flash (222)

//pahtahkwi'cih'kaki// Vi to flash off and on  
(373a)

puhhihpo'nohka Vi to be blue in one spot (223a)

puhhihpo'noh'kaki Vi to be blue in isolated  
spots here and there (as a field  
with some blue flowers scattered  
here and there)

c. iV. This class contains one member, occurring with  
imitative stems I (391) (cf. 319d). The constitutes are Vi.

ʔi iV to make the sound represented by the preceding  
imitative stem

qopopopo I cry of the Western Tanager

qopopopoʔi Vi to make the sound /qopopopo/

pahky+pahky I sound made by the pileated  
woodpecker

pahky+pahkyʔi Vi to make the sound /pahky+pahky/

kyywo I sound made by the sun (in a myth)  
 kyywo<sup>o</sup>i Vi to make the sound /kyywo/

d. pV. This class contains one member, which occurs only with <puh> Pb 'eyes', <ma> Pi 'pursuing', <kyh> Pi 'biting', and <wyh> Pi 'with whipping motion'. The constituents are Vt.

<ni> pV has allomorphs //~ni//, //hi//, //~jy//, //qa//, occurring as indicated by the examples

//puh ~ni// Vt to see

//ma hi// Vt to pursue

//kyh jy// Vt to bite

//wyh qa// Vt to whip

### 370 Verbal Suffixes

370. The verbal suffixes are grouped into several classes, on the basis of position (from root outward), and the order (from innermost layer outward) in terms of immediate constituents. The determination of this order is in a few instances hypothetical, because of the rarity of occurrence of some combinations of suffixes. The suffixes listed in 371 are limited in distribution, those of 372-9 (except as noted) productive. The suffixes of 376 and 379 are predicative (i.e. occur as ICs of forms which occur as IN or IF).

Those of 374-379 (except vv 377a) do not occur in IO with Vt or Vtt, but do occur in IC with Vi, including those members of Vi which contain members of Vt and Vtt as constituents (see 471).

371. Limited verbal suffixes. These morphemes occur with a limited number of verb stems.

a. vVi. The two suffixes of this class occur with a single verb root each. The roots involved are Vt, and the constitutes are Vi.

i vVi only with <nahqa> Vt, Mr(P), Nu 'to hear, ear'

nahqai Vi to make a sound/noise

h.. vVi only with <°eki> Vt 'to serve acorn to'

<°eki h..> //°ehki// Vi to eat acorn (mush, soup,  
or biscuits)

b. vV~. This class consists of one suffix which occurs with three members of Vi. The constitutes are Vt.

~i vV~ only with <jatuha> Vi 'to talk', <jaqa> Vi 'to  
cry', <tapuha> Vi 'to get light'

jatuha~i Vt to talk to (235, 251)

jaqa~i Vt to cry at/to (211d)

tapuha~i Vt~ only with <suh> Pi 'mentally' and

<puh> Pb 'eyes'

suhtapuha~i Vt to know, understand

puhtapuha~i Vt to be able to see

c. vVtt. This class contains one member, which occurs only with <wahci> Vi 'to be lost, hidden'. The constitute is Vtt̄.

~a.. vVtt only in

//wah~aci// Vtt̄ to hide only with <na> //na?//

Pr 'reflexive'

//na?wah~aci// Vt to hide oneself (from)

d. vVr. This class consists of the two mutually exclusive suffixes which occur with verb roots of the classes listed in 362.

?i vVr punctual aspect (used in referring to a single action involving motion which is completed in a brief passage of time)

<qwaca ?i> //qwahca?i// Vi to fall (of a single object, a short distance)

<puti ?i> //puti?i//~//puhti?i// Vi to emerge, go or come out (once, of single object)

For further examples, see 362.

<Rhi> vVr durative aspect (used generally in referring to an action involving continued motion, or for a series of actions of short duration following upon one another in rapid succession) has the allomorph //R̄// when followed by <?..ki> or <hpa?i>; the allomorph //Rhi// occurs elsewhere



qwacaṛhi Vi to fall (of several objects in rapid  
 succession or one object a long distance,  
 as a shooting star)

putiṛhi Vi to go/come out (of several objects in  
 rapid succession)

tanyṛhi Vi to keep ringing (of bell)

<tany ṛhi ʔ..ki> //tanyhṛki// Vi to ring inter-  
 mittently (373a)

<qwaca ṛhi hpaʔi> //qwacaṛhpaʔi// Vi to fall re-  
 peatedly

372. The two classes given below contain one morpheme  
 each. These two morphemes are related semantically, but  
 differ in distributional properties.

aṇ vVt. The one member of this class occurs with Vi,  
 the constitutes being Vt, and with Vt, the constitutes being  
 Vtt.

hky' vVt causative-benefactive; (portmanteau seme for  
 the combination with <pihty> Vi 'to arrive',  
 as indicated below)

<pihty hky'> //pityhky'// Vt to fight with

<joqa hsiti> Vi to blow the nose

joqahsitihky' Vt to make (a child) blow his/her

nose

<wähci> Vi to be lost, hidden  
 wahcihky' Vt to lose  
     papo tu Vi to braid (231a)  
 papotuhky' Vt to braid (someone's hair for her)  
     pani Vt to haul  
 panihky' Vtt to haul (smthg.) for (someone); to  
     make (someone) haul (something)  
     <puh ~ni> Vt to see  
 puh~nihky' Vtt to show (smthg.) to (someone); to  
     see (smthg.) for (someone)

b. vVw. The one member of this class has been found, in the modern colloquial language, only with <puha a> Vt 'to bewitch' (367a). The constitute is transitive. The suffix occurs in one or two places in texts as an archaic benefactive suffix, its use in those contexts having been replaced by that of <hky> vVt (372a) in the modern language.

<wi> vVw benefactive only in  
     puhaawi Vt to doctor (someone)

373. vVp, vtV. These two classes comprise three morphemes, which follow those of 371-373 and precede those of 374-379, if occurring in the same form with any of these. If vVp and vtV occur in the same form, vtV follows the former.

a. vVp. This class consists of two morphemes, which occur in IC with preceding Vi, Vt, or Vtt, the constituents being Vi, Vt, or Vtt respectively (466a-c).

<ʔ..ki> vVp intermittently, hesitantly, off and on  
has allomorphs as follows:

(1) When preceded by <ʔhi> (which has the allomorph //ʔ// when occurring before <ʔ..ki>), has the allomorph //h..ki// except that occasionally //ʔ..ki// occurs instead when the preceding sequence is such that the /C/ represented by the //ʔ// of <ʔhi> is /m n/ (//ʔ// and //h// cannot contrast before obstruents -- 222).

(2) Elsewhere, the allomorphs //ʔ..ki// and //ʔ..hki// occur, depending on the length of the other IC: //ʔ..hki// when the other IC is such that its phonemic representation contains two vowels, //ʔ..ki// when the other IC is such that its phonemic representation contains more than two vowels. (The forms occurring in IC with <ʔ..ki> consist of the preceding sequences up to and including Pb and Pi, but excluding other prefixes; except in the one form in which <ʔ..ki> has been found as a constituent of vVa (472b). For details, see 460, 470.)

<tany ʔhi> Vi to keep ringing (of bell)

<tany ʔhi ʔ..ki> //tanyhʔki// Vi to ring  
intermittently

<wyh kwinu ʔhi> Vt to swing (smthg.) around  
and around

<wyh kwinu ʔhi ʔ..ki> //wyhkwinuhʔki//  
//wyhkwinuʔki// Vt to swing (smthg.)  
around and around hesitantly/inter-  
mittently

mija Vi to go

mija ʔ..ki> //miʔjahki// Vi to go hesitantly/inter-  
mittently

kihma Vi to come

<kihma ʔ..ki> //kihʔmahki// Vi to come hesitantly  
(223a)

ʔine Vi, Vt to say

<ʔine ʔ..ki> //ʔiʔnehki// Vi, Vt to say hesitantly

nywi Vi (one being) to walk/go/wander around

<nywi ʔ..ki> //nyʔwihki// Vi to go around hesitantly

toja Nr(pi) mountain

tojanywi Vi to hunt (big game)

<toja nywi ʔ..ki> //tojanyʔwiki// Vi to hunt  
hesitantly/intermittently

wyy Vt to catch, take, hold in hand

<wyy ʔ..ki> //wyʔyhki// Vt to catch/take/hold  
hesitantly

mihee Vi, Vt to say, assert, maintain  
 <mihee ?..ki> //mihe?eki// Vt, Vi to assert

hesitantly

<cah myhna> Vt to turn over, change

<cah myhna ?..ki> //cahmyh?naki// Vt to turn over/  
 change hesitantly/intermittently

joqa Nr nasal mucous

joqahsiti Vi to blow the nose

<joqa hsiti ?..ki> //joqahsi?tiki// Vi to blow the  
 nose hesitantly/intermittently (222)

<hpa?i? vVp repeatedly

<cih cuka> Vt to point at

cihcukahpa?i Vt to point at repeatedly

cihcukahkyhpa?i Vtt to point (smthg.) out to  
 (someone) repeatedly

mija Vi to go

mijahpa?i Vi to go repeatedly

b. vtV. The one member of this class occurs only with Vt, and probably also with Vtt, but examples of occurrence with the latter have not been found.

ta vtV pl. object occurs only occasionally, even when there is a plural number of objects as goal of the action

tohachapy Vt to crane one's neck to see

(smthg.)

°o vVd pl. subject

tohmohapyta°o Vt to crane their necks to see (pl.  
object)

cuhpā Vi to sink, go down into smthg.

cuhpahky Vt to cause to sink, to put down  
into smthg.

mahcuhpahkyta Vt to cause (several things) to  
sink/go down with the hand

374. vVa. Auxiliaries. The auxiliaries are verb stems (Vi or Vt) which occur also as verbal suffixes, following those of 371-373 and preceding those of 375-379 when occurring in forms containing other verbal suffixes. Most members of vVa are monomorphemic, but there are three bimorphemic members and one member consisting of three morphemes: <tana ii> vVa 'for good' (362a), <māhsu °i> vVa 'almost' (362a), <mija poto> vVa,Vi 'to go back and forth' (472b), <mija °..ki poto> vVa,Vi 'to go back and forth hesitantly' (472b). The tactic juncture <h> (396a) occurs between Vi and vVa.

qahty vVa,Vi (sg. subject) continually, (as Vi: '(sg.)  
to sit')

As vVa, signifies that the action, condition, or quality denoted by the preceding stem continues to take place or be in effect for an extended period of time. Does not occur with <qahty> or <hapi> Vi '(sg.) to lie' (see <tyky> below).

<tany ʔhi> Vi (bell) to ring (durative)

tany<sup>h</sup>ʔhiqahty Vi to keep ringing

hahkwihsaʔihqahty Vi to keep sneezing

tyhkahqahty Vi to keep eating

ʔatyhkahqahty Vi to keep eating it

jyhkwi vVa, Vi (pl. subject) continually, (as Vi: '(pl.)  
to sit')

Corresponds to <qahty> (above); does not occur with  
<jyhkwi> or <qwapi> Vi '(pl.) to lie' (see <tyky>  
below).

tyky vVa<sup>-</sup>, Vt continually, (as Vt: to put, place)

Corresponds to <qahty> and <jyhkwi> in their  
function as auxiliaries, and occurs after <qahty>  
Vi '(sg.) to sit', <jyhkwi> Vi '(pl.) to sit',  
<hapi> Vi '(sg.) to lie', and <qwapi> Vi '(pl.) to  
lie'.

qahtyhtyky Vi (sg.) to keep sitting, be sitting for  
a while

jyhkwihtyky Vi (pl.) to keep sitting

hapihtyky Vi (sg.) to keep lying

qwapihtyky Vi (pl.) to keep lying

<mai> vVa, Vi to be in the process of ..., (as Vi: 'to  
be, become, do')

As vVa, signifies that the action denoted by the  
preceding stem has been taking place for a while,  
without completion, and is expected to continue.

has the allomorphs //m-1// end //mame//; partly in

tree variation, partly conditioned. The exact

conditions have not been worked out.

mifəhmat VI to be in the process of going

tyhkahmat VI to be in the process of eating

matyha vva, vt to finish ...ing, (as vt: 'to finish')

tyhkahmatyha VI to finish eating

hupjətuħmatyha VI to finish singing

manəha vva, vt to try to ... (as vt: 'to try')

hupjətuħmanəha VI to try to sing

joħoħmanəha VI to try to fly

naəhəma vva, vt to feel like ...ing, to want to ... (as

vt: 'to feel')

tyhkahnaəhəma VI to want to eat, feel like eating

hupjətuħnaəhəma VI to want to sing, feel like

singing

noo vva, vt (while moving) along, (as vt: 'to haul, carry')

hupjətuħnoo VI to sing (while moving) along

həhkwəħsəħnoo VI to sneeze while going along

əəħoħkəħpəħħnoo VI to point at it repeatedly

while moving along

ħywi vva, vt (sg. subj.) around, here and there, (as vt:

(sg.) to walk/go/wander (around))

hupjətuħħywi VI (sg. subj) to sing here and there,

in different places



nywihnywi Vi (sg. subj.) to wander around

tyhkahnywi Vi (sg. subj.) to eat in different  
places, to eat here and there

moo vVa,Vi (pl. subj.) around, here and there, (as Vi:

'(pl. subj.) to walk/go/wander (around)'

corresponds to <nywi>, for pl. subj.

moohmoo Vi (pl. subj.) to wander around

tyhkahmoo Vi (pl.) to eat here and there

375. The eight suffixes listed below follow suffixes of 371-4, and precede those of 376-9, when occurring in combinations with them. Combinations of these morphemes also occur, the relative order corresponding to that in which the classes are listed. All of these morphemes are productive.

a. vVb. This class contains a single member.

hu vVb momentarily

Signifies that the action or condition denoted by the preceding verb stem took place (or is taking place or will take place) or was (or is or will be) in effect for a very short period of time, or suddenly, or within a very short period of time from the time-point of reference indicated by the following tense suffix or other context.

<mija> Vi to go

<hti> vIM neutral tense (379b)

<waih> vW near future (379a)

mijahuhti IM went/left suddenly; just went/left

gijahuwaih IM, Vi<sup>-</sup> will go suddenly; will go

immediately (379a)

tyhkahuhti IM just ate; ate for a short while;

ate suddenly

tyhkahuwaih IM, Vi<sup>-</sup> will eat immediately; will eat

for a short while

b. vVc. This class contains three morphemes, which are concerned primarily with locational relationships.

poto vVc back and forth

mijapoto Vi, vVa to go back and forth

<nywi> Vi (sg. subj.) to walk around, wander

<?.ki> vVp hesitantly/intermittently

//ny<sup>?</sup>wihkipoto// Vi to wander back and forth

hesitantly

ja<sup>?</sup>wi vVc separately

Signifies an action as taking place in several places or at several times; usually with plural subject, where the various individual subjects are acting separately (rather than together, as for <qoi> vVd).

mijaja<sup>o</sup>wi Vi to go separately (i.e. in different directions or at different times)

<pihty> Vi to arrive

<hu> vVb momentarily

pihtyhuja<sup>o</sup>wihti IN several just/suddenly arrived  
(having come from separate directions)

pihtyja<sup>o</sup>wiqoihti IN several arrived together (having come from separate directions) (375c)

nawi vVc distributively (of place)

Signifies the action or condition denoted by the preceding stem as taking place or being in effect in several places (usually at the same time, with plural subject).

tyhkanawi Vi to eat in several places

hupijatunawi Vi to sing in several places

o. vVd. This class contains two suffixes having to do primarily with plurality of subject.

<qoi> vVd collectively

Signifies plural subject, with its various members acting together, or a singular subject acting in behalf of a group. Has the allomorph //hqoi// when occurring after <jaqa> Vi 'to cry'; the allomorph //qoi// occurs elsewhere.

//jaqahqoi// Vi (several) to cry together

mijaqoi Vi (several) to go together

pihtyqoi Vi to arrive together

hupijatuqoi Vi to sing together

?acihcukahpa?iqoi Vi (several) to point at it repeatedly together; (one) to repeatedly point at it on behalf of a unified group

?o vVd plural subject

Signifies plurality of subject, but sometimes seems also to carry an idea of collective action of the subject, like <qoi> vVd; it is practically interchangeable with the latter, which occurs with greater frequency.

mija?o Vi (several) to go (together)

tyhka?o Vi (several) to eat (together)

d. vVe. This class contains two suffixes having to do primarily with the speaker's evaluation of the subject. They are classed together primarily on semantic grounds, since there are insufficient occurrences of <?awi> to definitely determine its position relative to other suffixes.

?i vVe diminutive

Signifies that the subject (sg. or pl.) is viewed by the speaker as small, or that it is held in affectionate regard by the speaker.

mija?i Vi (dim.) to go

hupijatuqoi?i (several dim.) to sing together

ʔawi vVe pejorative

Signifies that the speaker dislikes or disapproves of the subject, or disapproves of the fact that the subject is doing what is denoted by the preceding stem.

mijaʔawi Vi (pej.) to go

tyhkaʔawi Vi (pej.) to eat

376. vWk. This class contains one suffix of unique distribution. Like the suffixes of 379a, b, it occurs as an IC of indicative expressions. It also occurs, however, before vVf, vVg, and vWw, as well as before vT (358b) and some nominalizing suffixes (319a), and in these constructions it is not predicative.

hku vWk perfective

Signifies completion of an action, and carries also the idea that the entire action has taken place (or, when followed by <waih> vWw, will take place) within a short period of time. When occurring as a predicative suffix (i.e. as IC of IN), it signifies also recent past time.

pihtyhku IN, Vi<sup>~</sup> as IN: has arrived, just arrived;

as Vi<sup>~</sup>, in (e.g.)

pihtyhkuhsi T having arrived

mijahku IN,Vi<sup>-</sup> as IN: has gone, just went; as Vi<sup>-</sup>,  
in (e.g.)

//<sup>o</sup>ahmijahkuhpY// Nf his tracks (of an  
animal) (i.e. the product of his  
having gone) (319a)

cipuhi Vi to climb, rise

<hna> vNr act/object of ...ing

//<sup>o</sup>ahcipuhihkuhna// Nf his having climbed

tyñ vNf,1N neutral agent

hupijatuhkutyñ Nf one who has just/recently sung

hki vVf before coming

//neñ// allomorph of <hti> vIN neutral tense  
(379b)

//<sup>o</sup>apuh<sup>~</sup>nihkuhkineñ// IN just saw it before coming

377. vVf, vv. The suffixes vVf follow those of 371-6 and precede those of 378 and 379, when accompanying them. They have to do with location or direction with respect to the action or condition denoted by the preceding stem; in addition, <kaa> vVf has an alloeme having to do with time. Morphemes belonging to vVf are given in 377b; in 377a is given a morpheme which occurs only as a constituent of vVf.

a. vv. The one member of this class occurs only with <kaa> vVf and <ki'> vVf, the constitutes being vVf.

h vv only in

hkaa vVf before going; immediate past

ʔapuh~nihkaa Vi to see it before going, see  
it and then go; to just now have  
seen it

pahkwika Vi to fish

pahkwikahkaa Vi to fish and then go on (211a)

hki' vVf before coming (226)

ʔapuh~nihki' Vi to see it before coming  
pahkwikahuhki' Vi to fish for a while before  
coming

b. vVf. Directionals.

kaa vVf to go and ..., to go in order to ...; to be  
on the point of ...ing

ʔapuh~nikaa Vi to go to see it; to be about to  
see it

ʔapuh~nikaawaih IN, Vi~ will go and see it

ʔapuh~nikaahpy IN has gone to see it

pahkwikakaa Vi to go fishing (211a)

//pahkwikakaaeh// IN went fishing; is about  
to fish (379b, 234b)

pahkwikakaahpy IN has gone fishing

//ʔywikaaeh// IN is going (somewhere) to sleep; is  
about to fall asleep

ki' vVf to come and ..., to come in order to ... (for  
<h ki> vVf, see 367a)

//°apuh~niki'neñ// IN came to see it, is coming to  
see it

pahkwikaki'waih IN,Vi~ will come to fish, will come  
and fish

hmi' vVf while going

//°apuh~nihai'neñ// IN saw it while going, saw it  
on the way (thither) (379b)

//pahkwikahmi'waih// IN,Vi~ will fish while going  
(along the stream)

hti' vVf while coming

//°apuh~nihti'neñ// IN saw it while coming  
nyka Vi to dance

//°anykahti'// IM dance (toward) this way!

htuha vVf elsewhere

//°apuh~nihtuhaeñ// IN saw it somewhere else (234a)  
pahkwikahtuhatyñ Nf one who has been fishing (some-  
where else).

htee vVf while staying in the same place; for a while

//°apuh~nihteeñ// IN saw it while staying (234c)

//pahkwikahtectyñ// Nf one who is/has been fishing  
while staying in one place



378. vVg. The three members of this class follow suffixes of 371-377 when occurring in combinations with them. Forms containing members of vVg as ICs are Vi<sup>-</sup>, with limitations on their occurrence as indicated below.

<hkwa> vVg distant future

This morpheme has always been found followed by <hti> vIN (379b), <tyñ> vNf,1N (319a), or <hsi> vT (358b); there is reason to believe that it could also be followed by <hna> vNr (319a) and <neñ> vT (358b). It has the allomorphs //hku// when occurring before <tyñ> vNf,1N and <hsi> vT; the allomorph //hkwa// occurs before <hti> vIN.

ʔapuh~nihkwahti IN will see it in distant future

(i.e. after several days or longer)

//ʔapuh~nihkutyñ// Nf one who will see it in  
distant future

//ʔapuh~nihkuhsi// T after seeing it in distant  
future

hmaa vVg already

This morpheme is apparently always followed by <hpy> vIN (379b), <hna> vNr (319a), or <hsi> vT (358b).

ʔapuh~nihmaahpy IN already saw it, has already  
seen it

//ʔahtyhkahmaahna// Nf his having already eaten  
tyhkahmaahsi T having already eaten

tuwa vVg could, would

This morpheme is apparently always followed by one of the following: <hpy> vIN (379b); <waih> vWw (379a), <hna> vNr (319a), <tyñ> vNf, lN (319a), vT (358b).

tyhkatuwahpy IN could eat, would eat

tyhkatuwawaih IN, Vi<sup>-</sup> will be able to eat

tyhkatuwatyñ Nf one who is able to eat

//<sup>o</sup>ahtykatuwahna// Nf his being able to eat

tyhkatuwaneñ T being able to eat, while able to eat

379. vWw, vIN, vIM. The morphemes of these classes occur only with Vi and are never followed by any of the verbal suffixes.

a. vWw. This class contains one member which, like vIN (379b), occurs as an IC of indicative expressions, but which, unlike them, can be followed by vT, <tyñ> vNf, lN, or <hna> vNr. (Cf. vWk, 376.)

waih vWw near future (up to several days)

tyhkawaih IN, Vi<sup>-</sup> will eat

tyhkawaihtyñ Nf one who will eat (in near future)

//<sup>o</sup>ahtykwaihhna// Nf his future eating, what he will eat (in near future)

tyhkawaihhsi T after eating (in near future)

b. vIN. The two suffixes of this class, with a single exception (483) in the case of <hpy>, are never followed by any other suffix, and always occur as ICs of indicative expressions.

<hti> vIN neutral tense

Indicates present or near past time except when following <hkwa> vVg 'distant future', where its function is simply predicative. Has the allomorph //eñ// when occurring after <kaa> vVf, <htuha> vVf, and <htee> vVf; and the allomorph //neñ// when occurring after <hmi> vVf, <ki> vVf, and <hti> vVf; the allomorph //hti// occurs elsewhere. <hti> vIN is the most frequently occurring predicative suffix.

\*apuh~nihti IN sees/saw it

tyhkahti IN is eating, ate

For examples with vVf, see 377b.

<hpy> vIN perfect tense

Signifies that an action or process has reached completion in the present or immediate past, with its result still in effect; after <tuwa> vVf, its function is simply predicative. See also 483.

tyhkahpy IN has eaten

pahkwikakaahpy IN has gone fishing (211a)

qwahsy Vi to get ripe, to be ripe

qwahsyhpy III has become ripe

c. vIM. This class contains a single suffix, which occurs only in IM (imperative expressions).

<hnaʔi> vIM emphatic imperative

Is mutually exclusive with predicative suffixes (vWk, vWw, vIN), vNr, vNf, and vT. Imperative forms of verbs (491-495) consist of verb stems usually with <ʔa> Pp 'third person' (even with V1) with or without <hnaʔi> vIM. When <hnaʔi> is present, the request or command carries greater force. <hnaʔi> has the freely varying allomorphs //hnaʔi// - //hnaʔiħ//.

//mijahnaʔiħ// - //mijahnaʔi// IM go (emphatic)!

//ʔapahkwikakaahnaʔiħ// - //ʔapahkwikakaahnaʔi// IM  
go fishing (emphatic)!

### 380 Prefixes

380. In this section are treated the "prefixes", other than "pronominal prefixes" (which are given in 320). They are divided into several classes, on the basis of distributional properties.

381. Pq. This class consists of a single morpheme, which has been found with certain members of Nr which denote

body parts and with one member of Vi. The constituents are Nf<sup>-</sup> (usually or always preceded by <nohi> Pn 'very') or Vi, respectively.

qaha Pq

<mah pih> //mah ~ja// Nr(P,pi) hand (311b)

//qahamah~ja// Nf<sup>-</sup> found only with <nohi> Pn

//nohiqahamah~ja// Nf one who has very large hands

nohiqahawooh Nf one who has a very large head

suwahqa Vi to breathe

qahasuwahqa Vi to pant (221a)

382. Pd. This class contains one morpheme. It occurs with Nf, Qn, Pr, pL, nL, and one member of Vi.

<Rh> Pd distributive occurs, with several allomorphs, as follows:

With Nf: //R// before <pohina pi> //pohinape// Nf 'chief' (333), //Rh,,h// before <cuku'> Nf 'old man' and <hyyhpi'> Nf 'woman', //Rh// otherwise.

<Rh pohina pi> //Rpohinape// Nf chiefs

(This is the usual plural form.

<pohina pi> has not been found with

<my> nNm 'animate plural'.)

<Rh,,h cuku'> //Rhcuhku'// Nf old men

//Rhhyyhpi'// Nf women (223a)

//Rhhyhpihci'// Nf old women (318e)

<pa 'ooh pY> Nf pebbles, smooth rocks

Rhpa'oohpY Nf pebbles here and there

With Vi: has been found with only one verb stem,  
 <pojo ha> Vi 'to run' (367a), where it  
 has the allomorph //R//. May occur also  
 with other V, but the occurrence with  
 <pojoha> appears to be a special usage;  
 generally, the suffixes <ja'wi> vVc,  
 <nawi> vVc (375b) serve instead to convey  
 distributive meaning.

//Rpojoha// Vi to run (of two or more beings,  
 in different places or directions)

With Qn: //Rh,,?// before <symy> Qn<sup>x</sup> 'one', //R?//  
 otherwise.

//Rhsy'my// Qn ones, one by one

//R'waha// Qn twos, two by two

//R'pahi// Qn threes, three by three (222)

//Rhsyy'mano// Qn tens, ten by ten

With Pr (321b): //Rh//.

<Rh na> Pdr reciprocal occurs as //Rhnah//

before pL, nL, Vt, and <Rh kyhna'>

Nf<sup>x</sup> 'other' (3181), and as //Rhna//

before Hr

qopenañ pL before, in front of (343c)

//Rhnahñqopenañ// L in front of each other

pa°aň nL,L on top (of)

//RhnaRhpa°aň// L on top of each other

waqa Vt,Vi to talk (to), to say

//RhnaHwaqa// Vi to talk to each other

(213e)

mohqoja Vi to put/have shoes on

(367a)

//RhnaRhkyhma'Na+mohqojahti// IN has

his/her shoes on the wrong feet

pyhni' Nr(P) younger sister

Rhnapyhni' Nf sisters: "each other's

younger sister"

With pL, nL: //Rh//. Occurs with pL, nL only when preceded by <na> Pr 'reflexive'. The forms involved designate locative relationships among members of a group of objects, one to another. In the designations of such relationships, <Rh> may precede the locative form (pL or nL) only, or Pr only, or it may occur twice, before the locative form and <na> Pr. The alternative sequences are facultative for some of the locative forms involved, while for others apparently only one of the possibilities occurs. (The corpus is undoubtedly incomplete with regard to such combinations;

the examples below represent the possibilities which have been found.)

kywatuheñ pL contiguous to

//RhnahRkkywatuheñ//~//Rhnahkywatuheñ// L

contiguous to one another

qopenañ pL in front of, before

//RhnahRhqopenañ// L in front of one another

°inahpaah pL on this side (of)

//Rhnah°inahpaah// L on either side

pa°añ nL,L on top (of)

//nahRhpa°añ//~//RhnahRhpa°añ//~//Rhnahpa°añ//

L on top of one another

pihnañ nL after

hsu F still, precisely (395)

//nahRhpihnañhsu// L after one another, one

after the other

tuheñ nL under

//RhnahRhtuheñ// L under one another, shorter

than one another (i.e. of different lengths)

383. Pn. This class consists of one prefix, which occurs widely with stems of several classes, wherever their meanings are such as to render occurrence with it semantically appropriate.



<nohi> Pn very, very much, too, too much has been found with members of Nf, V, Q, L, Aq; has the allomorph //nohe// when occurring with <?ewa> Qn 'many, much' and <qwena?a> L 'far'; //nohi// occurs elsewhere

juhu Nr(P,pi) fat, grease

juhupi Nf fat, grease, fat person (or animal)

nohijuhupi Nf one who is very fat, too fat

kywaa Nr(pY) sharp-edged object

//nohikywaapy// Nf very sharp object

naa?mihoi Vi to be tired

nohinaa?mihoi Vi to be very tired, too tired

kwyahi Vi to be drunk

nohikwyahi Vi to be very drunk, too drunk

maapa Vi to go uphill

//nanohimaapatyñ// Nf very steep one (216a, 321b, 319a)

tyyhmoov Vi,Vt to be amazed (at)

//?anohityyhmoohti// IN is/was very amazed at it

tyyhwii Vt to tell, say smthg. to

hky' vVt causative-benefactive (372a)

tyyhwiihky' Vtt to tell (someone) for (someone); to make (someone) tell (someone)

//poihpoina+?inohityyhwiihky'hti// IN told Poipoi quite a bit for me

ʔewa Qn much, many  
 //noheʔewa// Qn very much, very many, too much,  
 too many  
 cawu Ql good  
 nohicawu Ql very good  
 typici Ql great, important  
 nohitypici Ql very great/important  
 cyhkwyta Qc with effort, hard (354o)  
 nohicyhkwyta Qc with a great deal of effort, very  
 hard, too hard  
 qwenaʔa L,pI far (away), distant (from)  
 //noheqwenaʔa// L,pL very far, very distant, too  
 far/distant  
 paʔañ ĩL,L on top (of)  
 nohipaʔañ L very much on top, quite on top

384. Pa, pPa. The morphemes belonging to class Pa, "adverbial prefixes", are given in 384b. There is one member of Pa which is bimorphemic; one of its constituents occurs also as Pb, the other is labeled pPa and given in 384a.

a. pPa. This class consists of one morpheme which occurs only as a constituent of Pa.

mi pPa only with preceding <pih> Pb 'back, buttocks'  
 pihmi Pa<sup>-</sup> back only with <qooni> Vi 'to return'  
 pihmiqooni Vi to return back again

b. Pa. This class consists of prefixes which occur with verb stems only, and which precede Pt, Pb, and Pi if occurring in combination with them. The constituents are Vi, Vt, or Vtt depending upon whether the other IC is Vi, Vt, or Vtt. One of these prefixes, like <pih mi> Pa<sup>-</sup> 'back' (384a), occurs with only one verb stem; two others are very limited in their occurrence.

nahah Pa<sup>-</sup> only with <jykwī> Vt 'to treat (smthg. in some way); (other alloemes in certain constructions)'

nahahjykwī Vt to waste (214a)

h Pa<sup>-</sup>

Signifies force, violence, or the expenditure of great effort in the action denoted by the following stem. Has been found only with a few members of Vt which begin with Pb or Pi; is apparently always preceded by <ʔa> Pp '3rd person' or <na> Pr 'refl.'.

<wyh<sup>~</sup>tapo> Vt to strike (several blows, with whip-like motion)

ʔawyh<sup>~</sup>tapohti IN struck it (with several blows)

ʔahwyh<sup>~</sup>tapohti IN struck it hard (with several blows)

<cah goti ʔi> Vt to break (one brittle object)

//ʔacahqohtiʔihti// IN broke it

//ʔahcahqohtiʔihti// IN broke it (smthg. hard to break)

<mah oetee h noo> Vt<sup>-</sup> only with <h> Pa<sup>-</sup> and  
<na> Pr 'reflexive'

nahmahoeteehnoohti IN held/is holding on hard  
(while moving along)

<tah mihna> Vt<sup>-</sup> only with <h> Pa<sup>-</sup> and <na> Pr  
nahtahmihnahti IN sprained his/her ankle  
nahwyh<sup>-</sup>caqahti IN fell down (hard)

nah Pa<sup>-</sup> almost, as it were

Has been found with two verb stems, where the con-  
stitute signifies an event something like, or ap-  
proaching, the type of event denoted by the verb  
stem.

qoi Vt to kill (more than one)

nahqoi Vt to injure (one or more than one)

//puh<sup>-</sup>ni// Vt to see (257d)

//<sup>o</sup>ahkyhkyNa// Of its/his/her foot/feet obj.

pahapih<sup>o</sup>i Nf bear

//nyy// Np I

//<sup>o</sup>ahkyhkyNa+nyy+<sup>o</sup>anahpuh<sup>-</sup>nihti// IN I saw its  
tracks

//pahapih<sup>o</sup>iNa+nyy+<sup>o</sup>apuh<sup>-</sup>nihti// IN I saw the bear

//pahapih<sup>o</sup>iNa+nyy+<sup>o</sup>anahpuh<sup>-</sup>nihti// IN I saw the  
bear's tracks, I saw bear tracks.

//pahapih<sup>o</sup>iNa+nyy+<sup>o</sup>ahkyhkyNa+<sup>o</sup>anahpuh<sup>-</sup>nihti// IN

I saw the bear's tracks, I saw bear tracks

,,h Pa<sup>-</sup> only with <?yty?y> Vi 'to be hot'

//?yhty?y// Vi to be quite hot (differs very slightly in meaning from <?yty?y>; the two forms are practically interchangeable)

pytyh Pa just beginning to; just recently

naa Vi to grow, stick out

pytyhnaa Vi to start to grow, (of plants) to sprout

hupijatu Vi to sing

pytyhhupijatu Vi to start to sing (223a)

mohqo Nf shoes

maa Vt to obtain, ask for, buy

//?i// allomorph of <ny> Pp 'first person'

<hna> vN action or object (319a)

//?ipytyhmohqomaahna// Nf the shoes which I just bought

suh Pa

Signifies disapproval with the action or condition denoted by the following stem, either because of its tardy occurrence, or its failure to occur (when the predicate contains <qatu?u> Aq. 'not'), or for some other reason.

kihna Vi to come

suhkihnahti IN finally came/is coming; unfortunately, came/is coming

//ca<sup>k</sup>noo// Vt to catch (fish)

ty Ft indefinite object (324)

//gatu<sup>b</sup>u+suhtycah<sup>o</sup>nohti// IN unfortunately, didn't  
catch any (fish)

385. Pb. Nominal prefixes. The members of this class occur with Nbb, Nbr, Nbf (311), and with Vi and Vt. In verb forms they precede Pi (386) and follow any other prefixes, if other prefixes occur. Constitutes of Pb with verb stems are Vi or Vt according to whether the other IC is Vi or Vt. Details of the occurrence of members of Pb in noun stems are given in 311. The examples given below illustrate their occurrence with Vi and Vt.

coh Pb head

wyhnaki Vi<sup>-</sup> only with <coh> Pb

cohwyhnaki Vi to nod (213b)

qawinoḥhi Vi<sup>-</sup> (371d) only with <coh> Pb

cohqawinoḥhi Vi to shake the head back and forth

puh Pb eyes

<tapyha<sup>~</sup>i> Vt<sup>-</sup> (371b) only with <puh> Pb,

<suh> Pi

puhtapyha<sup>~</sup>i Vt to be able to see

maaci Vt<sup>-</sup> only with <puh> Pb

puhmaaci Vt to recognize

~tama Vt<sup>-</sup> (216a) only with <puh> Pb

puh~tama Vt to look at

<puh t̄tama °..ki> //puh~ta°maki// Vt to look  
at off and on

hai Vt<sup>-</sup> only with <puh> Pb

puhai Vt to look for (223a)

mu Pb nose, snout, mouth

hsyhta°i Vi to freeze

muhsyhta°i Vi to have one's nose frostbitten or  
very cold

//°noo// allomorph of <noo> Vt 'to carry'

mu°noo Vt to kiss

nih Pb voice, speech

sunawi Vt to bother, annoy

nihsunawi Vt to annoy by chattering, talking

kihma Vi to come

nihkihma Vi to ask permission to come, to express  
desire to come

mah Pb hands, front paws

cohki°i Vt<sup>-</sup> (371d) only with <mah> Pb

mahcohki°i Vt to pounce upon (like a cat)

tyhki°i Vt (371d) only with <mah> Pb or  
<cah> Pi

mahtyhki°i Vt to fire (gun)

qapa°wo°i Vt<sup>-</sup> (371d) only with <mah> Pb

mahqapa°wo°i Vt to slap in the face

<tah> Pb feet has the allomorph //toh// when occurring with <nopoto> Vi<sup>-</sup>, Nbr (311b, 364); the allomorph //tah// occurs elsewhere  
 oee Vt to hold; (constitute with <tah> Pb has portmanteau seme)

tahcee Vt to overtake, catch up with

topa Vt<sup>-</sup> has been found only with <tah> Pb

tahtopa Vt to take off one's shoes

mihna Vt<sup>-</sup> only with <tah> Pb

tahmina Vt<sup>-</sup> only with <h> Pa (384b)

pih Pb<sup>+</sup> back<sup>s</sup>, buttocks in addition to its occurrence as a member of Pb, has a few specialized uses, as indicated by the examples

nañ xL at, on (348c)

pihnañ nL, T- after, behind

pihnañsu T again

huh (Kh) (341b) only with <pih> Pb<sup>+</sup>

huhpih (K) only with <nahqweh> KL (see 341b)

mi pPa (384a) only with <pih> Pb

pihmi Pa<sup>-</sup> back again only with <qooni> Vi 'to return'

kututuu<sup>?</sup>i Vi<sup>-</sup> only with <pih> Pb

pihkututuu<sup>?</sup>i Vi to slide downhill on one's buttocks

tataa Vi<sup>-</sup> only with <pih> Pb

pihtataa Vi to squat



ta Pb sun, heavenly body

This morpheme has a special use with <ta pe> Nr 'sun, day' and <ta my'a> Nr 'moon, month' (311b), with which it occurs (rather than <pi> nNf 'absolute suffix') to give constitutes which are Nf (416b).

✓ tatape Nf sun, day

tatamy'a Nf moon, month

pyha Vi<sup>-</sup> only with <ta> Pb

tapyha Vi to get light (of the sky at dawn) (See also 371b.)

<kuh> Pb fire, heat has the allomorph //qoh// when followed by <noo> Vt, vVa 'to carry, haul' or <pih> Nbf, Nbr 'empty noun root' (311c); the allomorph //kuh// occurs elsewhere

//qohnoo// Vt to haul (wood)

<kuh pih> //qohso// Nf fire

<tyja wi> Vi to die (367a)

kuhtyjawi Vi to be burned to death

majaa Vt to make, fix, prepare

kuhmajaa Vt to cook

ita Vt<sup>-</sup> only with <kuh> Pb

kuhita Vt to smoke out (bees)

qwahsy Vi to become/be ripe

kuhqwahsy Vi to become/be ripe from heat

<tyh> Pb rock, missile has the allomorphs //tyh// and //htyh// (the latter when preceded by Nf, Nr, or Ku, the former otherwise) when occurring with <pih> Nbr, Nbf 'empty noun root' (311a), <hanii> Nbr (311b), <paha> Nbr 'pestle, mortar', and <qahty> Vi, vVa 'to sit'; the allomorph //tah// occurs elsewhere

<tyh qahty> //tyhqahty// Vi (rocks) to be lined up  
in a row

kyywi Vt<sup>-</sup> only with <tyh> Pb

//tahkyywi// Vt to throw at

wyna<sup>?</sup>i Vt to move, throw (371d)

//tahwyna<sup>?</sup>i// Vt to throw (rock or other missile)

coqo Vt<sup>-</sup> only with <tyh> Pb

//tahcoqo// Vt to smash with a rock

ty Pb<sup>-</sup> earth has been found only with Nbr (311b)

<pa> Pb water, moisture has the allomorph //pah// when occurring with <kywa tuheñ> pL 'beside' (343a) (which has not been found with other members of Pb); the allomorph //pa// occurs elsewhere

//pahkywatuheñ// L at the edge of the water

//pahkywatuheñhsu// L along the edge of the  
water/river

tyky Vt to put, place

patyky Vt to put in water

hsa Vi<sup>~</sup> only with <pa> Pb  
 pahsa Vi to be/become dry  
 cawa Vt<sup>~</sup> only with <pa> Pb  
 pacawa Vt to pour  
 noo Vt to carry, haul  
 panoo Vt to haul water  
 no Pb dwelling/camping  
 mija Vi to go  
 nomija Vi to go camping (218a)  
 //pity// allomorph of <pinty> Vi to arrive  
 //nopity// Vi to arrive home  
 qooni Vi to return  
 noqooni Vi to return home

386. Pi. Instrumental prefixes. The members of this class occur only with Vi, Vx, Vt; the constitutes are always Vt. Pi generally follow prefixes of any other class, when occurring in combinations with them.

cah Pi by pulling; (various other alloemes)  
 pityna Vx only with <cah> Pi  
 cahpityna Vt to drag (along), pull (along)  
 pihka<sup>na</sup> Vx only with <cah> Pi  
 cahpihka<sup>na</sup> Vt to tighten (e.g. string) by pulling  
 <qopi ?i> //qohpi<sup>o</sup>i// Vi to break (of supple  
 object) (371d)  
 //cahqohpi<sup>o</sup>i// Vt to break (one supple object)

- <myhna> Vi, Vr<sup>-</sup> to turn over, change (362c)  
cahmyhna Vt to turn over, change  
tyhki<sup>o</sup>i Vt<sup>-</sup> only with <cah> Pi or <mah> Pb  
cahtyhki<sup>o</sup>i Vt to fire gun  
tyky Vt to put, place  
cahtyky Vt to put down (heavy object)  
kyhna Vx only with <cah> Pi  
cahkyhna Vt to fasten by tying  
wyna<sup>o</sup>i Vt to move, throw (371d)  
cahwyna<sup>o</sup>i Vt to knock down (213b)  
//~nika// allomorph of <<sup>o</sup>ika> Vi to enter  
//cah~nika// Vt to put inside an enclosure, to  
imprison  
~qwapu Vx only with <cah> Pi  
cah~qwapu Vt to claw  
//<sup>o</sup>noo// allomorph of <noo> Vt 'to carry'  
//cah<sup>o</sup>noo// Vt to haul; to catch (fish)  
wyh Pi with sidewise motion (of long object), with  
whipping motion, with long object  
//~tapo// Vx, V<sup>o</sup>x to strike (362b)  
wyh~tapo Vt to beat/strike several blows with  
whipping motion (of club or stick)  
//wyh~tahpo<sup>o</sup>i// Vt to strike (one blow) with  
whipping motion

pohnaa Vt to surpass, to win

wyhpohnaa Vt to overtake (while running), to run  
past (In this case, the long object is  
the subject's body.)

pahcuki Vx only with <wyh> Pi

wyhpahcuki Vt to switch

siqoota<sup>o</sup>i Vx only with <wyh> Pi

wyhsiqoota<sup>o</sup>i Vt to scrape

pihsita<sup>a</sup> Vx only with <wyh> Pi

wyhpihsitaa Vt to throw away

kwinu<sup>h</sup>hi Vi to swing/spin around (371d)

//wyhkwinu<sup>h</sup>hi// Vt to swing around (smthg. tied to  
a string)

toh Pi (meaning unclear; sometimes seems to indicate  
violent motion)

//<sup>o</sup>noo// allmorph of <noo> Vt 'to haul/carry

//toh<sup>o</sup>noo// Vt to hit (smthg. thrown or shot at)

gopa Vx only with <toh> Pi

tohgopa Vt to cut

pakita Vx only with <toh> Pi

tohpakita Vt to hit with fist

//<sup>h</sup>qopi//, //qoh<sup>h</sup>pi// allmorphs of <qopi> Vi,

Vr<sup>o</sup> 'to break (of supple object)

(362d)

//toh<sup>h</sup>qopi// Vt to cut (timber)

//tohqoh<sup>h</sup>pi<sup>o</sup>i// Vt to break with violent motion (371d)

cih Pi with point, end of long object

too Vx only in the following forms:

nacihtoo Vi to walk with aid of cane/staff (321b)

cihtoowyna<sup>o</sup>i Vt to push

//<sup>o</sup>nika// allomorph of <<sup>o</sup>ika> Vi 'to enter'

//cih<sup>o</sup>nika// Vt to insert with pointed object (223a)

<sup>o</sup>witu Vx only with <cih> Pi

cih<sup>o</sup>witu Vt to stir

cũka Vx only with <cih> Pi

cihcũka Vt to point at (see also 411a)

saja Vt to cut (skin of sick person, to cause  
bleeding)

//cihsa<sup>o</sup>jaki// Vt to pierce (patient's skin) with  
sharp point several times (to cause  
bleeding) (373a)

kyh Pi by biting

//~jy// allomorph of <ni> Vt 'empty verb root'  
(367d)

//kyh~jy// Vt to bite

coho Vx only with <kyh> Pi

kyhcoho Vt to chew

//<sup>o</sup>noo// allomorph of <noo> Vt 'to carry'

//kyh<sup>o</sup>noo// Vt to bite (223a)

//qohpi// allomorph of <qopi> Vi<sup>o</sup>, Vr<sup>o</sup> 'to  
break (of supple object)'

//kyhqohpi<sup>o</sup>i// Vt to bite off a piece of (371d)

suh Pi with the mind, mentally

mija Vi to go

suhmija Vt to think about

tapyha~i Vt (371b) only with <puh> Pb,

<suh> Pi

suhtapyha~i Vt to know, understand

caa Vx only with <suh> Pi

suhcaa Vt to like

si'jee Vx only with <suh> Pi

suhsi'jee Vt to dislike

ma Pi pursuing

//hi// allomorph of <ni> Vt 'empty verb root'

(367d)

//mahi// Vt to pursue

nywi Vt (one) to go/walk/wander (around)

manywi Vt to chase, pursue

kihma Vi to come

makhma Vt to come after, in pursuit

mija Vi to go

mamija Vt to go after, in pursuit (216a)

//~nika// allomorph of <'ika> Vi (to enter'

//ma~nika// Vt (dog) to corner (small game) (in a crevice or tree)

390 Minor Classes

390. In this section are given the remaining morpheme classes. All of them except the imitatives (391) contain a very limited number of members.

391. Imitatives. The class I, "imitative stems" consists of forms which occur with either or both of the suffixes <hna'> iN (319d), <'i> iV (367c). Members of I also occur as frustums (i.e. in IC with <.> 398), where they are often accompanied by special intonation patterns and/or voice modifiers. Many members of I are monomorphemic (391c). Others consist of a morpheme repeated by itself, with (class Ia) or without (class Ib) intervening <+> (396c). Only a sample of the imitative morphemes is given below.

a. Ia. Members of this class occur with themselves, with intervening <+>, the constitutes being I.

pahky Ia only in

pahky+pahky I sound made by the pileated woodpecker *when*  
pecking

pahky+pahkyhna' Nf pileated woodpecker

pahky+pahky'i Vi to make the sound /pahky+pahky/

pyhmy Ia only in

pyhmy+pyhmy I sound made by deer trampling through  
the forest



b. Ib. Members of this class occur with themselves, without intervening <+>, the constitutes belonging to class I.

qopo Ib only in

qopoqopo I cry of the western tanager

qopoqopohna' Nf western tanager

qopoqopo'i Vi to make the sound /qopoqopo/

'oto Ib only in

'oto'oto I cry of the turkey

'oto'otohna' Nf turkey

hawy Ib only in

hawyhawy I cry of the wild goose

hawyhawyhna' Nf wild goose

cooh Ib only in

coohcooh I cry of the western bluebird

coohcoohhna' Nf western bluebird (223a)

c. I. Some of the monomorphemic members of I are listed below.

hahkwihsa I<sup>-</sup> sound of sneeze has been found only in

hahkwihsa'i Vi to sneeze

kyywo I sound made by the sun (in a myth)

kyywo'i Vi to make the sound /kyywo/

maa I sound made by mosquitoes

<tawaa'> I cry of the spotted towhee, has the freely

varying allomorphs //tawaa'//~//tawaa'na//

when occurring; as frustum; and the allomorph

//tawaa'// when occurring with <hna'> iN  
 (which has the allomorph //ʔna'// when occur-  
 ring with <tawaa'>)

//tawaaʔna'// Nf spotted towhee (227f)

ʔuuʔui I cry of the roadrunner

ʔuuʔuihna' Nf roadrunner

392. E, (E). Interjections. Most of the interjections are monomorphemic (morpheme class E, 383b); there are three, however, which are bimorphemic, the second morpheme in each being the same, and occurring only in these three forms. This morpheme is labeled (E) and is given in 383a.

a. (E). This class contains one morpheme, which occurs in IC with three morphemes, of two different classes, the constituents being interjections.

~~ai (E) only with <ʔyny'> Nf 'strange or terrible  
 being; white man', <ʔytyʔy> Vi 'to be hot',  
 <ʔycyʔy> Vi 'to be cold'

ʔyny'~~ai E exclamation of fear, or of wonder at  
 something strange or fearful (236b)

//ʔytyʔy~~ai// E exclamation of pain resulting from  
 burning or extreme heat (236a)

//ʔycyʔy~~ai// E exclamation of pain resulting from  
 extreme cold

b. E. The interjections occur predominantly or always as frustums (except for <qatu<sup>o</sup>u> E, Qn, Aq, which occurs also as Qn and Aq).

manahuñ E hello

tijaha E okay (in response to a suggestion or request)

haaha<sup>o</sup>a E okay (in response to a suggestion or request; connotes somewhat less enthusiasm or willingness than the above form)

hyhy<sup>o</sup>y E yes

qatu<sup>o</sup>u E, Qn, Aq no (see also 354a, 359a)

<sup>o</sup>ea<sup>o</sup>a E exclamation of disgust or strong disapproval.

(The sequence /ea/ occurs only in representations of this morpheme. It is a rising diphthong.)

toki E, Ql<sup>+</sup> enough, right (as Ql<sup>+</sup>: 'right, sufficient, appropriate')

cawu E, Ql good

393. Conjunctions. The morphemes which occur as conjunctions (classes C and Ce) are given in 393b. One morpheme which has been found only as a constituent of C is given in 393a.

a. hC. The one member of this class occurs only with <ha> H 'interrogative-indefinite' (327) and <tu<sup>o</sup>i ha> H 'any', the constitutes being conjunctions.

hni'1 hC only in

hahni'1 C,Ce why, for some reason

tu'ihahni'1 C for any reason

b. C, Ce. Members of the two classes of conjunctions occur in IC with IN (indicative expressions - 490), the constituents also being IN. The two classes differ in their position of occurrence. The "independent conjunctions" (class C) precede the forms with which they occur, while the "enclitic conjunctions" (class Ce) occur either immediately preceding the first occurrence of <+> in the other IC, or, if the other IC contains no <+>, following the other IC; in either case, the enclitic conjunction is preceded by the tautic juncture <~> (396b). Several of the conjunctions occur both independently and as enclitics. These are labeled C,Ce. Examples of the occurrence of conjunctions are given in 489.

jaihsi C,Ce and (connects the frustum with which it occurs to the preceding)

po'o Ce but (connects frustum with which it occurs to the preceding, with a sense of contrast)

tii Ce indeed (often indicates surprise, amusement, or approval)

tai Ce indeed (often indicates surprise and/or disapproval)

py'y Ce interrogative

hsa<sup>ʔ</sup>a Ce interrogative

wa<sup>ʔ</sup>a Ce interrogative

(The difference in meaning between the three interrogative morphemes is not clear.)

hnape Ce<sup>-</sup> perhaps, apparently

This morpheme occurs following <jaqañ> C, but occasionally occurs followed by <jaqañ ~ hnape>, the sequence occurring as an independent conjunction (459).

jaqañ~hnape Ce perhaps, apparently

hnape~jaqañ~hnape C perhaps, apparently (224d)

jaqañ C,Ce perhaps, apparently (usually followed by <hnape> C, see above)

ja Ce quotative

Indicates that the event or condition described by the expression with which it occurs has been reported to the speaker to have taken place or to be in effect, but that the speaker has not verified it by his own observation.

hsapyhti Ce or

<tu<sup>ʔ</sup>i> Ce<sup>+</sup> anyway, anyhow

This morpheme occurs also with <ha> H 'interrogative-indefinite' (327), the constitutes being members of class H with a general meaning 'any', and with itself, the constitute being an independent conjunction. Except when in these constructions, <tu<sup>ʔ</sup>i> has the freely varying allomorphs //tu<sup>ʔ</sup>i//~//tu<sup>ʔ</sup>iŋ//.

tu<sup>o</sup>iha H any

tu<sup>o</sup>ihaqeñ Nh anyone (323)

//tu<sup>o</sup>ihahno// L anywhere (348c)

For further examples, see 327.

tu<sup>o</sup>itu<sup>o</sup>i C although (459)

<sup>o</sup>ipehu C maybe

naahmaty C apparently

394. op. This class consists of one morpheme, which has been found preceded by W (303h), and followed by N or Vi, with intervening <+>. The constitutes are OP (optative expressions).

hsahqwa op optative

Examples are given in 496.

395. F, "postfixes". The postfixes occur after members of several classes; the constitutes are tactically equivalent to the same forms occurring without F.

hsu F precisely (what the preceding form says), still

(where time is involved) (Has a specialized use after locatives ending in <nañ> xL (348b), the combination <nañ hsu> being equivalent in translation to English 'along'.)

pojonañ L on the road

pojonañhsu L along the road

//pahkywatuheñ// L at the edge of the water

(385, 343c)

//pahkywatuheñhsu// L along the edge of the water

//nyyhsu// Np I myself

nopih~weeh L at home, in the house (343a)

nopih~weehhsu L right at home, in the house (and

nowhere else)

tapewano T,Vi (to be) daytime (358a)

tapewanohsu T still daytime (231a)

hsy°yñ F only

//nyyhsy°yñ// Np only I

~tijañ F also

//nyy~tijañ// Np I also

nopih~weehyñ~tijañ Nf also that which is in the

house (319b)

396. Tactic junctures. The tactic junctures are morphemes which have no meaning other than that their presence is determined by the occurrence of certain constructions.

a. <h> occurs between the ICs of certain constructions as follows:

(1) after Ql or Qn before N' (415h).

(2) after Ql before Vi or Vt (467).

(3) before vVa (374, 472) except where the auxiliary is <nywi> '(sg.) around' or <moo> '(pl.) around'

and the preceding Vi ends in <naki> Vt 'to follow' or  
<°.ki> vVp 'hesitantly, intermittently'.

?anakinywi Vt (sg.) to follow him/her around

?anakimoo Vi (pl.) to follow him/her around

nywihnywi Vi (sg.) to wander around

//ny°wihkinywi// Vi (sg.) to wander around

hesitantly

moohmoo Vi (pl.) to wander around

//mo°ohkimoo// Vi (pl.) to wander around

hesitantly

(4) before nNh (335, 432, 417b, 451d, 452a).

b. <~> occurs in two types of constructions, as follows:

(1) after N' (303g) or Nh (424d) before nL or nQ1 (446g, j; 452c, g), except:

(a) after stems ending in <hnuñ> vNr<sup>+</sup> 'instrument for ...ing' (319a) before <tuheñ> nL 'under' (348a):

tyhkahnuñtuheñ L under the table

(b) after stems ending in <tyñ> vNf,1N (319a,b):

mijatyñni Q1 like one who is/was going

(c) after stems ending in <hna> vNr 'act/object of ...ing' (319a) (which has the allomorph //h// when followed by nL, and does not occur before nQ1):



//<sup>o</sup>ylmijahweeh// I in your going, because  
you went (213d)

(2) before Ce (393b, 489b).

c. <+> occurs in several constructions. See 423, 434, 435, 437, 449, 453, 457, 456a, 471g, 474, 479, 484-489, 493, 494, 496.

397. X. This class contains a single member.

• X (152)

This morpheme occurs only after <+> (396o), where it indicates that the speaker is hesitating as to how to proceed with the utterance. It may not be present, or may be present in different places, in repetitions of the utterance. (The morphophoneme //•// occurs only as the representation of this morpheme.) The occurrence of this morpheme is not considered in Chapter Four.

398. Z. This class contains one member, which occurs in IC with members of various classes, the constitutes being sentences.

• Z (154)

This morpheme has been found with members of the following classes: IN (indicative expressions), IM (imperative expressions), OP (optative expressions), E (interjections), I (imitatives), N (nominals),

O (objective expressions), Q1 (qualitatives), Qc (354c),  
L (locatives), T (temporals), C (conjunctions). The  
term frustum is used to refer to forms occurring in IC  
with <.>.

## CHAPTER FOUR

### MORPHEME ARRANGEMENTS

401. This chapter gives a description of the most commonly occurring patterns of arrangement of the morphemes of Northfork Mono. The description is based on analysis according to immediate constituents, and is presented by means of a list of constructions, with accompanying examples or references to examples contained in chapter three.

The description is by no means intended to be complete. It attempts to cover the most commonly occurring patterns, and those which appear to be most basic and standard, including those which serve as the basis for the distributional classification of morphemes, but it does not go into a number of variations from what appears to be the norm, which occur with more or less frequency. Such variations seem to be of the greatest frequency in spontaneous, unpremeditated texts and conversation, especially under circumstances in which it is apparent that the speaker is not fully cognizant, at the beginning of a sentence, of how the sentence will end. This is often demonstrated by hesitations, false starts, new beginnings, and by words or phrases given as afterthoughts,

constituting sentences which follow. This characteristic of Northfork Mono is undoubtedly not an unusual one; it is probably the case that most languages, if not all, offer similar obstacles to the theoretically ideal goal of a complete description of morpheme arrangements.

The description here presented is not only insufficient to make possible the synthesis of any more than the simplest utterances with assurance of correctness; it is also insufficient, in itself, to account for all of the patterns of arrangement which have been found in the corpus.

402. The terms construction and frustum are used as indicated below.

a. A construction is described by specification of: (1) the distribution classes of forms which enter into it (i.e. the ICs), (2) the order in which these ICs occur, (3) the tactic juncture(s) (396) present (if any), and (4) the distribution class(es) to which the constitutes belong. The analysis of arrangements is carried out in such a way that the total number of constructions used for the description is as small as possible. (This is the basic criterion used for determination of immediate constituency.)

The symbolic devices used to describe constructions are given in 404.

b. The outer limit of the description of arrangements is the sentence. A sentence (on the morphemic level) is a constitute containing <.> Z (398) as an IC. The other IC (which always precedes <.> Z) may be called a frustum. The class of frustums (which has, of course, a transfinite number of members) is made up of members of the following classes:

Group One

|    |                        |             |
|----|------------------------|-------------|
| IN | Indicative expressions | (480)       |
| IM | Imperative expressions | (491-495)   |
| OP | Optative expressions   | (496)       |
| E  | Interjections          | (392b, 497) |
| I  | Imitatives             | (391c, 458) |

Group Two

|    |  |
|----|--|
| N  | Nominals                                 |
| O  | Objective expressions                    |
| Ql | Qualitatives                             |
| Qc | <cyhkwyta> Qc 'with effort, hard' (354c) |
| L  | Locatives                                |
| T  | Temporals                                |
| C  | Conjunctions                             |

Group one includes those forms which occur predominantly or very commonly as frustums. The forms of group two occur more commonly as constituents of frustums, but they can occur as frustums under somewhat special conditions, such as (1) in answers to questions, (2) in the amplification of an idea

contained in a preceding sentence, (3) in response to various types of elicitation used by the linguistic field worker. A few other classes could be added as marginally qualifying for inclusion in group two, viz. Vi, Vt, (possibly Vtt), and Am.

c. The main body of this chapter (410-430) is devoted to constructions whose constituents are frustums or constituents of frustums. Many of these constructions are already described and illustrated in chapter three. (These are listed in the present chapter for the sake of providing a complete and orderly list of all the constructions which have been analyzed.) In the listing of such constructions, references are given by number to the place(s) in chapter three where examples and further details may be found. In some cases, reference is made to examples given in chapter three, but additional ones are provided under the statement of the construction. References of the type indicated above are given without enclosure in parentheses. Other kinds of cross-references are distinguished from these by enclosure in parentheses, following the practice of previous chapters.

403. Distribution classes may consist of unit morphemes only, of composite forms only, or of both. Those which contain unit morphemes are designated by the labels listed in 303. Those which contain composite forms only are defined by the constructions in which they are involved, and are

labeled as indicated in the statements of these constructions. Three cover symbols used for larger groupings of nominal forms are:

$N$  -  $N_f$  plus  $N_q$  plus  $N_d$  plus  $N_p$  plus  $N_h$ .

$N'$  -  $N_r$  plus those members of  $N_f$  which are not constitutes of the constructions of 416.

$N_d^p$  -  $N_p$  plus  $N_d$ .

404. The notational devices used to describe the constructions are as follows:

a. In the symbolic representation of constructions, the labels representing the classes of ICs are given, in the order in which the ICs occur, with an intervening tautic juncture where one occurs, at the left of the symbol /. At the right of the / is given the label representing the class to which the constitutes belong. If the constitutes comprise a subclass of <sup>the</sup> a class represented which has definite limitations on its distribution relative to other members of that class, the symbol is accompanied by  $\bar{\quad}$ , and a special statement is made concerning the distribution of the constitutes (cf. 303e).

b. The symbol  $\checkmark$ , used with distribution-class symbols representing IC classes, signifies that the forms covered by the construction may be members of the class designated which are constitutes of some or all of the constructions listed in

preceding articles of the chapter (in addition to unit morphemes, if any), but not constitutes of constructions listed in following articles, nor (unless there is an accompanying statement to the contrary) constitutes of the construction itself in which the symbol occurs. (For purposes of implementing this definition, an article of the chapter may be defined as any portion of it headed by a numeral which is not underlined (e.g. 412). Subdivisions of articles are headed by letters of the alphabet; and the coverage of symbols accompanied by \* does not extend to preceding constructions of such subdivisions unless statement is made to the contrary in particular instances.)

c. An asterisk \* accompanying a distribution-class symbol in the statement of a construction signifies that the members of the class designated which occur in the construction constitute a definable subclass of that class; the conditions of limitation are given in a statement immediately following the symbolic characterization of the construction (e.g. 411a).

An asterisk accompanying the symbol for a tactic juncture indicates that this juncture is not present when certain specific morphemes are involved as constituents. The details are given in a following statement (e.g. 472c).



d. Where neither  $\sim$  nor  $*$  is used accompanying a distribution-class label, there may nevertheless be (and usually there are) restrictions on the extent to which forms belonging to the class designated occur in the construction; but the restrictions are not of such a nature as to be readily statable or discoverable. They usually involve possibilities of semantic combination. Such restrictions are for the most part not described, but it may be taken as implied that limitations exist, except where both of the IC classes contain only one or a very few members. It can be said, however, that, unless a statement is made to the contrary, a constituent of a construction does not occur as a constituent in the same construction.

e. Two commas preceding a class symbol signify that members of that class, when occurring in that construction, occur after the first word of the other IC. In each of the constructions of this type in Northfork, a tactic juncture intervenes between this "enclitic" and the first word of the other IC. Thus the symbol for the tactic juncture involved is given between the ,, and the class symbol of the "enclitic" IC, e.g.

,,  $\sim$  Ce IN $\sim$  / IN (489b)

That is, the enclitic conjunction (class Ce) occurs after the first word of the indicative expression (class IN), with

intervening <~>. (If the indicative expression contains only one word, the enclitic conjunction follows it.)

(A word, on the morphemic level, is a sequence of morphemes occurring between two occurrences of any of the following: <+> <•> <,> <.> #, except <+> when it occurs as tactic juncture in construction 453a.)

f. In the citing of examples, ICs are separated by spaces, and tactic junctures, where they occur, are separated by spaces from each of the ICs. (This is in contrast to the practice of chapter three, in which spaces separate morphemes, without regard to immediate constituency.)

#### 410 Noun Stems

410. Constitutes of constructions of this section occur as ICs in one or more of the constructions of: 410, 430, 446, 452, 457, 463, 464, 484, 486, 487, 494, 496.

The symbol N' is used to represent the class consisting of Nr (restricted noun stems) plus those members of Nf which are not constitutes of any of the constructions of 416.

411. a.  $Vt^* vNr^* / Nbr$  where  $Vt^*$  includes only <cih cuka> 'to point at' (465e),  $vNr^*$  includes only <hnuñ> 'instrument for ...ing' (310n).

<cihcuka hnuñ> Nbr 'pointer' has been found only in

<mah cihcukahnuñ> Nr(P) index finger (411c)

<tah cihcukahnuñ> Nr(P) big toe

b.  $Pb^* Nbb / Nf, Nbr$  where  $Pb^*$  includes only <pa> 'water, liquid'.  $Nbb$  contains only one member, <hkwi> (fish)'. 311a.

c.  $Pb^* Nbr^* / Nr$  where only certain combinations of these forms occur, as described in 311b.

d.  $Pb^* Nbf^* / Nf$  where only certain combinations of these morphemes occur, as described in 311c.

412. a.  $Nu^* nNj / Nr(pY)$  where  $Nu^*$  includes only <°ehsi> 'gray'. 331d.

b.  $Nf^* nNx^* / Nf$  where only certain combinations occur, as described in 331a. One of the constitutes, <°yny' y>  $Nf^{\sim}$ , occurs only with <ni> nQl 'like' (355).

c.  $Nr^* nN' / Nr(P)^{\sim}$  where  $Nr^*$  includes only <pija> 'mother'. 331b.

d.  $Nr^* nN' / Nf$  where  $Nr^*$  includes only <nahqa> 'ear'. 331b.

e.  $Nf^* nN' / Nf$  where  $Nf^*$  includes only <co°ahpe> 'ghost'. 331b.

f.  $Nr^* nNc / Nf-Nr(pY)$  where  $Nr^*$  includes only  
<nahqa> 'ear'. 331c.

413. a.  $Nt nNt / Nf$  313a-c, 332.

b.  $Ntn nNt / Nf$  313d, 332.

c.  $Ntn nNn / Nf$  313d, 332.

d.  $Nn nNn / Nf$  313e, 332.

414. a.  $Nf^* Nf^* vNr^* / Nf$  where the first  $Nf^*$  includes only <pa hkwi> 'fish' (411b), the second  $Nf^*$  includes only <poto> 'staff, pole, digging stick',  $vNr^*$  includes only <hnuñ> 'instrument for ...ing'.

<pahkwi poto hnuñ> Nf fishing pole (231a)

b.  $Nt^* vNr^* / Nf$  where  $Nt^*$  includes only <sahqwa'a> '(fir tree)',  $vNr^*$  includes only <hnuñ> 'instrument for ...ing' (which has the allomorph //hnu// when occurring in this construction). 313c.

c.  $Vi^* vNr / Nr^+$  where  $Vi^*$  includes unit morphemes and constitutes of some constructions of 462-465,  $vNr^*$  includes only <hnuñ> 'instrument for ...ing'. 319a.

d.  $Vt^* vNr^* / Nr^+$  where  $Vt^*$  includes unit morphemes and constitutes of some constructions of 462-465,  $vNr^*$  includes only <hnuñ> 'instrument for ...ing'. 319a.

g.  $V_i^* vNf^* / Nf$  where  $V_i^*$  includes unit morphemes and constitutes of some constructions of 462-465,  $vNf^*$  includes <pe> 'that which is ...ed', <'> 'one who ...s', <pecy> 'one who ...s excessively'. 319a.

f.  $V_t^* vNf^* / Nf$  where  $V_t^*$  includes unit morphemes and constitutes of some constructions of 462-465,  $vNf^*$  includes <'> 'one who ...s', and probably <pecy> 'one who ...s excessively' (examples of the latter have not been found, but are believed possible). 319a.

g.  $V_{tt}^* vNf^* / Nf$  where  $V_{tt}^*$  apparently includes only unit morphemes,  $vNf^*$  includes <'> 'one who ...s' and probably <pecy> 'one who ...s excessively' (examples of the latter have not been found, but are believed possible). 319a.

h.  $V_i^* vNf^* / Nf$  where  $V_i^*$  includes only <pa hapi> 'to swim' (465g),  $vNf^*$  includes only <hoi> (319a). 319a.

i.  $K^* vNf^* / Nf$  where  $K^*$  includes only <tyh 'ohi> '(left)' (441a),  $vNf^*$  includes only <hoi> (319a). 319a.

j.  $H hNr / Nr(P,pY)$  319e, 327.

k.  $uH U^* / Nf$  where  $U^*$  includes only <'ahca pono> 'tan, brown, copper-colored' (461a). 419f.

## 415. Compounds.

## a. N' h' / Nf

<pa hkwi> Nf, Nbr fish, trout (411b)

//htyh pih// <tyh pih> Nf rock (411d)

//pahkwi htyhpih// Nf sinker (on fish-line)

<wihtuwa> Nf bowl

<tyhpih wihtuwa> Nf stone bowl

<wihsi> Nr(P, pi) string

<pahkwi wihsi> Nf fish-line

<tyhka ' > Nf<sup>-</sup> eater (414f) occurs only in 415a

<pahkwi tyhka' > Nf crane: "fish-eater"

<kwica> Nr(pi) sp. larvae (which grow in Mono Lake)

<kwica tyhka' > Nf Mono Lake Paviotso: "larvae-eaters"

<tyhka hnuñ > Nr<sup>+</sup> table; instrument for eating (414c)

<wihi> Nf 'knife'

<tyhkahnuñ wihi> Nf knife (of the type used in eating)

//oih<sup>o</sup>noo hnuñ// <cihnoo hnuñ > Nr<sup>+</sup> instrument for  
carrying with pointed object (414d)

<tyhkahnuñ cihnoohnuñ > Nf fork

## b. Nu Nf / Nf (312)

<tohci> Nu white

//htyh pih// <tyh pih> Nf rock (411d)

//tohci htyhpih// Nf white rock

<puhi> Nu blue/green

<hnawahku> Nf money

<puhi hnawahku> Nf blue-green money (beads cut from  
abalone shell)

<qety> Nf<sup>-</sup> occurs only in

<puhi qety> Nf abalone shell

c. Nu\* h nNh\* / Nf where Nu\* includes only <'ahqa>  
'red', nNh\* includes only <qo'jo> nNh<sup>-</sup> (335). 335.

d. Nc\* Nf\* / Nf where only certain combinations of  
these forms occur, as described in 314a.

e. Nw\* Nf\* / Nf where Nw\* includes only <too> 'winter,  
year' (319), and Nf\* includes only <no pih> 'house' (411d).

<too nopih> Nf winter-house

f. Vi\* N' / Nf where Vi\* apparently includes only  
unit morphemes. This is not a commonly occurring construc-  
tion; only a few members of Vi and N' occur in it.

tyyja Vi to be afraid

<no pih> Nf house, home (411d)

<tyyja nopih> Nf dwelling-place which offers protection  
from attackers: "afraid-home"

//jaqah// <jaqa> Vi to cry

<pu pih> //puhsi// Nr(P) eye (411c)

//jakah puhsi// Nf crybaby

g.  $Vt^* N' / Nf$  where  $Vt^*$  apparently includes only unit morphemes. This is a rarely occurring construction, in which only a few members of  $Vt$  and  $N'$  are involved.

//qoih// <qoi>  $Vt$  to kill several

<nana>  $Nf$  man, male

//qoih nana//  $Nf$  hunter

h.  $Q^* h N' / Nf$  where  $Q^*$  includes a few members of  $Ql$  and  $Qn$  (but not  $Qc$ ). Only a few members of  $N'$  occur in this construction.

//coo// <cawu>  $Ql$  good, well

<pa hkwi>  $Nf, Nbr$  fish, trout (411b)

//coo h pahkwi//  $Nf$  trout; native trout (as opposed to those brought in by white men)

<nyyhmy>  $Nf$  person, Indian, Mono

<cawu>  $Ql$  good, well

<cawu h nyhmy>  $Nf$  full-blooded Mono/Indian

<waha>  $Qn$  two

<ta pe>  $Nr(ta)$  sun, day (411c)

<waha htape>  $Nf$  'two days'

<typloi>  $Ql$  important, great

<huu '>  $Nf$  flower, river (414e)

<typloi h huu '>  $Nf$  San Joaquin River

i.  $nL^* Nf^* / Nf$  where  $nL^*$  includes only <tuheñ> 'under' and  $Nf^*$  includes only <nato'o> 'shirt', <qahnihau'ju>



'trousers', <tuheñ> has the allomorph //tuhih// when occurring in this construction.

//tuhih nato'o// Nf undershirt

//tuhih qahnihsu'ju// Nf underpants

416. a. Nr nNf / Nf The members of Nr occurring in this construction are cited with indication of the respective allomorphs of <pi> nNf 'absolute' with which they occur, in parentheses following the distribution-class label. 333, 316.

b. Pb\* Nr\* / Nf where Pb\* includes only <ta> 'sun, heavenly body', and Nr\* includes only <ta pe> 'sun, day' and <ta my'a> 'moon, month' (411c). 311b, 335.

c. Nw\* nNf / Na, Nf- where Nw\* includes only <too> 'winter, year', <toqa> 'night'. 315. (The constitutes occur as Na in 457.)

417. a. Nf<sup>v</sup> nNl / Nl Only a few members of Nf occur in this construction. 334.

b. Nx h nNh\* h nNh\* / Nf- where nNh\* includes only <ci'> 'diminutive'. The constitute occurs only with <ni> nQl 'like' (355, 452o). 314b.

c.  $Pq\ Nr^* / Nf^-$  where  $Nr^*$  includes the names of some body parts. The constitutes usually or always occur with <nohi> Pn 'very' (383, 418b). 381.

418. a.  $Pd\ Nf^v / Nf$  382.

b.  $Pn\ Nf^v / Nf$  383.

419. a.  $Vi\ vNr^* / Nr(P)$  where  $vNr^*$  includes only <hna> 'act/object of ...ing'. 319a.

b.  $Vi^* vNf^* / Nf$  where  $vNf^*$  includes <tyñ> 'neutral agent', <hpy> 'product of the action', <hty'> 'customary/former agent'.  $Vi^*$  includes unit morphemes, constitutes of constructions of 460, and those of certain constructions of 470, depending on the suffix involved: for <hpy>, 473, 475; for <hty'>, 471-474; for <tyñ>, all constructions with  $Vi$  constitutes except 477 where  $vVg$  is <hmaa> 'already'. 319a.

c.  $Q^* qN / Nq$  where  $Q^*$  includes  $Q1$  and  $Qn$ , but not  $Qc$  (354c). 319b.

d.  $Qn^* qN^* / Nf$  where  $Qn^*$  includes <symy> 'one', <Rh symy> 'one-distributive', <Rh waha> 'two distributive';  $qN^*$  includes <h..'>  $qN^-$  (319b). 319b.

5.  $L\ lN / Nf$  319b.

f.  $T^* lN^* / Nf$  where  $T^*$  apparently includes only  $\langle mi'i'i \rangle$  'nowadays';  $lN^*$  includes only  $\langle tyñ \rangle lN, vNf$  'neutral agent'.  $\langle mi'i'i \rangle$  has the allomorph  $//mi'i'h//$  when occurring in this construction.

$//mi'i'h tyñ// Nf$  those of nowadays, contemporaries.

g.  $Qc qcN / Nf$  319c.

h.  $I iN / Nf$  319d.

#### 420 Pronominal Forms

420. In this section are listed constructions in which members of the classes given in 320 appear as ICs, and whose constitutes are either Pp (421-423), N (424-425), or H (426). The class N is made up of Nf, Np, Nd, Nh, and Nq.

421. a.  $Pp^{\sim} pp / Pp^{-}$  constitutes occur in construction 424a (i.e. with  $\langle my \rangle pN$ ) only if the constitutes of that construction occur in construction 436b. 322b.

b.  $Pp^* Pr / Pp^{-}$  where  $Pp^*$  includes only  $\langle 'a \rangle$  'third person'. The constitute indicates zero possessor and occurs only with Nr which are constitutes of 414c, d and 41)a (i.e. 'verbal nouns' in  $\langle hnuñ \rangle vNr^+$  'instrument for ...ing' and  $\langle hna \rangle vNr$  'act/object of ...ing' 31)a].

<qahty> Vi, vVa to sit, stay

<qahty hnuñ> Nr<sup>+</sup> chair (414c)

<°yh qahtyhnuñ> Nf thy chair (431a)

<°a qahtyhnuñ> //°ah qahtyhnuñ// Nf his/her chair

<°ana qahtyhnuñ> //°ahna qahtyhnuñ// Nf a/the chair

<ceehpahnihi> Nf magician

<ceehpahnihi jee> Vi to be/act like a magician

(463a, 367a)

<ceehpahnihijee hna> Nr(P) act/object of being

(like) a magician; magic; cinema,

television

<°yh ceehpahnihijeehna> Nf thy magic; thy television set

(431a)

//°ahnaceehpahnihijeehna// Nf magic; cinema, television

422. Pd Pr / Pdr

<Rh> Pd distributive (382)

<na> Pr reflexive (321b)

<Rh na> Pdr reciprocal (382)

423. a. Op\* + Pp\* / Pp where only certain combinations of Op (436b) and Pp occur. The conditions of this limitation are that the same person morpheme (321) be contained in both members, and that if <ni> pp 'plural' (322b, 421a) occurs in one member, it occur also in the other. The occurrence of a constitute of this construction is associated

with greater emphasis upon the person signified than in the case of the Pp morphemes or the constitutes of 421a occurring without Op. (For Op forms, see 323.)

<ny puhku> //ʔi puhku// Nf my dog (431a)

<nymyhkaNa+ny puhku> //nymyhkaaʔʔi puhku// Nf my dog

b. Od + Pp\* / Pp where Pp\* includes only <ʔa> 'third person' and <ʔa ni> 'third person plural' (421a), the latter occurring if <my> nNm 'animate plural' is present in the member of Od (436c) with which it occurs.

//mahkahuNa+ʔah puhku// Nf that one's dog (431a)

//mahkahumyNa+ʔaih puhku// those people's dog

c. On + Pp\* / Pp where Pp\* includes only <ʔa> 'third person'.

<hahkaNa + ʔa> //hahkaa + ʔah// Pp whose, someone's;  
whom, someone (obj.) (424d, 436d)

//hahkaa+ʔah puhku// Nf whose/someone's dog (431a)

d. On + Pp\* / Pp where Pp\* generally includes only <ʔa> 'third person' and <ʔa ni> 'third person plural' (421a); one example has been found, however, of <ʔyh ni> Pp 'second person plural' occurring in this construction.

<poihipoiNa + ʔa> Pp Poipoi's; Poipoi (obj.)

//poihipoiNa+ʔah puhku// Nf Poipoi's dog (431a)

//poihipoiNa+ʔahpuhkuNa+ʔah qwaci// Nf Poipoi's dog's

tail

<tyyhna> Nf meat, food

<?yny' Na> Of white man (obj.)

//?yny'Na+?yih tyyhna// Nf you white men's food

e.  $Oq^* + Pp^* / Pp$  where  $Oq^*$  includes at least  
<nasymyhtu Na> //nahsy?myh ku// 'all-obj.' (436f), and  $Pp^*$   
includes only <?a> 'third person'.

<nasymyhtuNa + ?a> Pp everyone's; everyone (obj.)

//nahsy?myhku+?ah puhku// Nf everyone's dog (431a)

424. a.  $Pp^* pN / Np$  where  $Pp^*$  includes unit morphemes  
(321a) and constitutes of 421a. 323.

b.  $Pr pN / Np^-$  constitute has been found only with  
<hsu> F 'precisely, still' (395, 438), <hkwa'> nNp 'plural'  
(322a, 425); the constitute <namy hkwa'>  $Np^-$  (425) has been  
found only with <hsu> F.

<na my> //pyy//  $Np^-$  (321b, 323)

c.  $D dN / Nd$  326.

d.  $H hN / Nh$  3281

425.  $Np^{\sim} nNp / Np^-$  constitutes do not occur in 436b.

426.  $Ce^* H / H$  where  $Ce^*$  includes only <tu?i>  
'anyway' (393b). 327, 393b.

430 Substantive Expressions

430. Constitutes of constructions of 431-435 and 438 occur as ICs in one or more of the constructions of: 438, 446, 452, 484, 486, 487, 496. Constitutes of 436, 437, and 439 occur as ICs in one or more of the constructions of: 434, 437, 439, 423, 471g, 485.

N' is used as a cover symbol for the class consisting of Nr plus those members of Nf which are not constitutes of 416. The class N includes Nf plus Np plus Nd plus Nh plus Nq. Similarly, the class O includes Of plus Op plus Od plus Oh plus Oq.

431. a. Pp N' / Nf (321, 421, 423, 316, 318, 410)  
Note that Np, Nh, Nd, Nq differ from Nr and Nf in that they do not occur in this construction. 321, 322, 423.

b. Pdr Nr\* / Nf where Nr\* includes terms of relationship.

<Rh na> Pdr reciprocal (422)

<pyhni'> Nr(P) younger sister

<Rhna pyhni'> Nf sisters; sister and brother (where  
the sister is the younger)

<nawa> Nr(P) father

<Rhna nawa> Nf father and child

<pety> Nr(P) daughter

<Rhna pety> Nf parent and daughter

<pohso'> Nr(P) friend, partner, cousin of same sex

<Rhna pohso'> Nf friends, partners, cousins of same sex

432. a.  $Nf^v h nNh / Nf$  (335). Limitations on the occurrence of four members of  $nNh$  (those marked  $nNh^-$ ) are described in 335. A very few forms (as noted in 335) which are constituents of this construction occur as constituents in it, e.g.

<tuwahpi' h ci'> Nf child-dim.

<tuwahpi'hci' h ci'> Nf child-dim.

<Rhcuku' h ci'> Nf little old men

<Rhcuku'hci' h pa'wo> Nf darn little old men

b.  $Np h nNh^* / Np$  where  $nNh^*$  includes only <ci'> 'dim.'.

<ny my> //ny y// Np I

//nyy h ci'// Np little old me

c.  $Nd h nNh^* / Nd$  where  $nNh^*$  includes only <ci'> 'dim.' (335).

<mahu h ci'> Nd that-dim.

d.  $Nh h nNh^* / Nh$  where  $nNh^*$  includes only <ci'> 'dim.'.

<hageñ h ci'> Nh who/someone-dim.



433. a.  $Nf^{v*} nNm / Nf$  where  $Nf^{v*}$  includes names of animate beings, as described in 336.  $\langle my \rangle nNm$  precedes  $nNh$  (335, 432a) when both suffixes occur with  $\langle nana \rangle Nf$  'man, male',  $\langle na^?a \rangle Nf^{\sim}$  'boy', or combinations of  $Pp$  and  $\langle tuwah \rangle Nr(P, pi')$  'child, son' (431a). 336.

b.  $Nd nNa / Nd$  336.

434.  $Oq + Nq^* / Nq$  where  $Nq^*$  includes only those constitutes of 419c in which  $\langle ke \rangle nQl$  'having' (355) is an  $I\theta$  of the constituent  $Ql$ .

$\langle nopih \sim ke \rangle Ql$  house-having (452c)

$\langle nopih^{\sim}ke \text{ ht}u \rangle Nq$  one who has a house (419c)

$\langle cawu \text{ ht}u \rangle Nq$  good (one) (419c)

$\langle cawuhtu \text{ Na} \rangle // \langle cawuhku // Oq$  good one-obj. (436f)

$\langle wahahtu \text{ Na} \rangle // \langle wahahtu // Oq$  two-obj. (436f)

$// \langle cawuhku + nopih^{\sim}kei // Nq$  one who has a good house

$// \langle wahahtu + nopih^{\sim}kei // Nq$  one who has two houses

$// \langle qatu^?uhku + nopih^{\sim}kei // Nq$  one who has no house

435. a.  $Nd + Nf^v / Nf$

$\langle ma \text{ hu} \rangle Nd$  that (424c)

$\langle no \text{ pih} \rangle Nf$  house (411d)

$\langle mahu + nopih \rangle Nf$  that house

b. Nq + NF<sup>v</sup> / Nf

<cawu htu> Nq good (one) (419c)

<cawuhtu + nopih> Nf good house

<wahahtu + nopih> Nf two houses.

436. The class O includes Of, Op, Od, Oh, Oq.

a. Nf<sup>v</sup> nO / Of 337a.

b. Np o nO / Op 323, 329, 337a.

c. Nd o nO /<sup>\*</sup> Od where the position of <hka> o is immediately following the constituent D (325) of Nd (326).  
326, 329, 337a.

d. H o nO / Oh 327, 329, 337a.

e. H hO / Oh 327, 337b.

f. Nq nO / Oq 319b, 337a.

437. a. Od + Of / Of

//ma hka hu Na// Od that-obj. (436c)

<nopih Na> Of house-obj. (436a)

//mahkahuNa + nopihNa// Of that house-obj.

b. Oq + Of / Of

<cawuhtu Na> //cawuhku// Oq good-obj.

//cawuhku + nopihNa// Of good house-obj.

//wahohku + nopihNa// Of two houses-obj.

438. N F / N\* where the constituents are of the same class (Nf, Np, Nd, etc.) as the N constituent. 395.

<nohi 'yny'> Nf very much a white man (418b)

<nohi'yny' hsy'yh> Nf entirely a white man, nothing but a white man (said of an Indian who has entirely given up his native culture for that of the white man)

#### 440 Locative Expressions

440. Constitutes of the constructions listed in this section are L (locatives) or constituents of L. Forms belonging to class L occur in one or more of the constructions of: 419e, 441c, 445d, 446n, 446v, 447-449, 474b, 487.

441. a. (Kt) Q1\* / K where Q1\* includes only <cawu> 'good, well' and <'ohi> '(left)'. 341a.

b. (Kh) Pb\* / K where Pb\* includes only <pih> 'buttocks, back'. 341b.

c. L\* (Km) / K where L\* includes only <ha wuhta> 'in what/some direction'. 341c.

d.  $D^* (pK) / pK$  where  $D^*$  includes  $\langle ?i \rangle$  'this',  $\langle ?u \rangle$  'that'. 344. (The class  $pK$  consists of these two constitutes plus  $\langle qwaa \rangle$  '(beyond)' (343a). Members of  $pK$  occur only in 442a and/or 443a.)

442. a.  $pK^* x / (pL)$  where  $pK^*$  includes only  $\langle qwaa \rangle$  '(beyond)'. 343a.

b.  $D^* xL / (pL)$  where  $D^*$  includes  $\langle ?i \rangle$  'this' and  $\langle ?u \rangle$  'that'. The constitutes occur as  $(pL)$  in 443b, 445b (the same construction, with regard to these two forms). (Cf. 446u.) 325, 348c.

443. a.  $pK kL / pL$  (346) (The class  $pK$  consists of  $\langle qwaa \rangle$  '(beyond)' (343a) and the two constitutes of 441d.)

$\langle ?inaah hnahqweh \rangle pL$  on this side of

$\langle ?unaah hnahqweh \rangle pL$  on the other side of

$\langle qwaa hnahqweh \rangle pL$  beyond

b.  $(pL)^* nL^* / pL$  where  $(pL)^*$  includes  $\langle qope \rangle$  'front' (343c),  $\langle kywa \rangle$  'side' (343c),  $\langle qwaa tyh \rangle$  '(beyond)' (442a),  $\langle ?i nañ \rangle$  'here' (442b),  $\langle ?u nañ \rangle$  'there' (442b); and where  $nL^*$  includes  $\langle weeh \rangle$  'in, at',  $\langle paah \rangle$  'by',  $\langle tuheñ \rangle$  'under'; with only the following combinations occurring:

$\langle qope weeh \rangle pL, L$  in front (of), before (445b)

$\langle kywa paah \rangle pL$  beside, near

<kywa tuheñ> pL contiguous to

<qwaatyh weeh> pL beyond

<?inañ paah> pL,L on this side (of)

<?unañ paah> pL,L on the other side (of)

c. (pL)\* xL / pL where (pL)\* includes <qope> 'front' and <kwita> 'bottom' (343c).

<qope nañ> pL in front of

<kwita nañ> pL at the bottom of

d. pL\* (-A) / pL where pL\* includes <kywa paah> 'beside, near' (443b), and possibly one or more other forms; (-A) occurs between the two ICs of pL\*. (353a).

<kywa ' paah> pL beside (and very close to)

e. Pr L\* / pL<sup>-</sup> where L\* includes only <typihi nañ> 'at the middle' (445c); the constitute apparently occurs only with those members of Pp which contain <ni> pp 'plural' (322b, 421a). 345, 348c.

<?ani natypihinañ> //?aihnahtypihinañ// L between them,  
in their midst (446a)

444. a. Pb\* xL / nL,T- where Pb\* includes only <pih> 'buttocks, back' (385).

<pih nañ> nL,T- behind, after

b. (pK) nL\* / nL where nL\* includes only <paah> 'by'.

<naah paah> nL behind

c. Pd pL\* / pL<sup>-</sup> where pL\* includes <kywa tuheñ> 'contiguous to' (443b), <qope nañ> 'in front of' (443c), and possibly others. The constitutes occur only with Pdr (442, 446b) (and possibly also with Pr). 382.

d. Pd nL\* / nL<sup>-</sup> where nL\* includes <pa?añ> 'on top of', <pih nañ> 'behind, after' (444a), <tuheñ> 'under', and possibly others. The constitutes occur only with Pr and/or Pdr (446e, f). 382.

445. a. K kL / L (441a-c, 342, 346.) 341, 342.

b. (pL)\* nL\* / L,pL where (pL)\* includes <qope> 'front' (343c), <?i nañ> 'here' (442b), and <?u nañ> 'there' (442b); and where nL\* includes <weeh> 'in, at' and <paah> 'by'; with only the following combinations occurring (all of them occur also as pL, cf. 443b):

<qope weehə L,pL in front (of), before

<?inañ paah> L,pL on this side (of)

<?unañ paah> L,pL on the other side (of)

c. (L) xL / L<sup>-</sup> (The two IC classes contain a single member each: <typihi> (L) 'middle' (345), <nañ> xL 'at, on'. The constitute occurs only with <na> Pr 'reflexive' (in 443e) and with <tyñ> 1N,vNf (319b) (in 419e).

typihi nañ> L<sup>-</sup> at the middle

d.  $L^* (-A) / L^-$  where  $L^*$  includes <pa<sup>o</sup>añ> 'on top', and possibly other forms. The constitute usually or always occurs with <hsu> F 'precisely, still' (395, 448). 353a.

446. a. Pp pL / L (321, 421a, 423; 347b, 443).  
347b.

b. Pdr pL<sup>\*</sup> / L where pL<sup>\*</sup> includes <kywa tuheñ> 'contiguous to' (443b), <Rh kywatuheñ> 'distributively contiguous to' (444c), <Rh qopenañ> 'distributively in front of' (444c), <<sup>o</sup>inañ paah> 'on this side of' (443b), and possibly other forms. 382.

c. Pb<sup>\*</sup> pL<sup>\*</sup> / L where Pb<sup>\*</sup> includes only <pa> 'water' (which has the allomorph //pah// when occurring in this construction), and pL<sup>\*</sup> includes only <kywa tuheñ> 'contiguous to' (443b).

//pah kywatuheñ// L at the edge of the water

//pahkywatuheñ hsu// L along the edge of the water,  
along the river bank (448)

d. Pp nL / L (321, 421a, 423; 348a, 444a, b). 348a.

e. Pr nL<sup>\*</sup> / L where nL<sup>\*</sup> includes <Rh pa<sup>o</sup>añ> 'distributively on top of' (444d), <Rh piñmañ> 'distributively behind, after' (444d), and possibly others. 382.

f. Pdr nL\* / L where nL\* includes <pa'añ> 'on top of' (348a), <ah pa'añ> 'distributively on top of' (444d), <Rh tuheñ> 'distributively under' (444d), and probably others. 382.

g. Nf ~\* nL / L <~> is not present after those members of Nf which end in <tyñ> vNf, lN (319a, b; 419b, e, f) or <hna> vNr 'act/object of ...ing' (419a, 431a); nor after members of Nf which end in <hnuñ> vNr<sup>+</sup> 'instrument for ...ing' (414a-d) if the member of nL which follows is <tuheñ> 'under'. 348a, 396b.

h. Nl\* nL\* / L where each member of Nl occurs with one specific member of nL. Members of Nl (317) are cited with an indication in parentheses of which member of nL each occurs with. 317.

i. D nL dN / L 326.

j. Nh ~ nL\* / L where nL\* includes <paah> 'by' and possibly other forms.

<haqeñ ~ paah> L by whom/someone

k. Nq\* nL / L where Nq\* includes those constitutes of 419c in which members of Ql (but not Qn) are ICs.

<cawuhtu weeh> //cawuh weeh// L in a good (one)

//papah weeh// L in a big (one)



l. Qn nL\* / L where nL\* includes only <paah> 'by'.  
348a.

m. nL\* nL\* / L where only the following has been found:

<tukuñ> nL to, through, into

<paah> nL by

<tukuñ paah> L straight (up)

n. L nL / L

<typewuh> L (way) down below; in the San Joaquin  
Valley

<tukuñ> nL to, through

<typewuh tukuñ> L down to the Valley

<nopih ~ pa<sup>2</sup>añ> L on top of the house (446g)

<nopih~pa<sup>2</sup>añ tukuñ> L to the top of the house

<wynyhpY ~ <sup>2</sup>ahqah> L among the trees

<wynyhpY~<sup>2</sup>ahqah weeh> L in (the area) among the trees

o. D\* dL / L where D\* includes <<sup>2</sup>i> 'this' and <<sup>2</sup>u> 'that', of which only the former has been found with one of the members of dL (namely <peñ>). 348b.

p. H dL\* / L where dL\* includes only <wuhtah> 'in ... direction'. 348b.

q. Nr\* xL / L where Nr\* includes <ty pih> 'earth' (411c), <pa waha> 'meadow' (411c), and perhaps a few other forms. 348c.

r.  $Nf^* xL / L$  where  $Nf^*$  includes <pojo> 'road' and perhaps a few other forms. 348c.

s.  $Nl^* xL / L$  where  $Nl^*$  includes a few morphemes; these are listed in the lexicon as  $Nl(na\check{n})$ .

<moonih>  $Nl(na\check{n})$  Finegold

<moonih na\check{n}> L at Finegold

<moonihna\check{n} ty\check{n}>  $Nf$  (that which is at) Finegold  
(419e)

t.  $H xL / L$  348c.

u.  $D^* xL / L$  where  $D^*$  includes <?i> 'this' and <ma> 'that' (which has the allomorph //maa// when occurring in this construction). 325, 348c.

v.  $L^* xL / L$  where  $L^*$  includes <?ijo\check{n}> 'here' and <?ija\check{n}> 'there'. 348c.

w.  $Qn^* xL / L^-$  where  $Qn^*$  includes <waha> 'two' and perhaps others. The constitute has been found only with <pa?a\check{n}>  $nL, L$  'on top of' (446n). 348c.

447.  $Pn L^* / L$  where  $L^*$  includes a few members of L.

<nohi qwena?a> L very distant

<nohi pa?a\check{n}> L very much on top

448.  $L^* F / L$  395.

449.  $L^* + L^* / L$  where the first  $L^*$  includes constitutes of 446i,k, (i.e. those in which D or Nq occur as ICs), and the second  $L^*$  includes constitutes of 446g (i.e. those in which Nf is an IC); with the combinations subject to the condition that the same member of nL occur as an IC of each of the ICs.

<ma weeh hu> //maweehhuñ// L in that (446i)

<nopih ~ weeh> L in the house (446g)

//maweehhuñ + nopih~weeh// L in that house

<papahtu weeh> L in the big (one) (446k)

<papahtuweeh + nopih~weeh> L in the big house

#### 450 Miscellaneous Forms

4500 The constructions listed in this section involve several types of classes. Constitutes of the constructions of 451-454 are members of the class Q (which has the three subclasses Q1, Qn, Qc). Constitutes of the constructions of 454 are T- (occurring as ICs in 455a). Those of the constructions of 454-457 are T (temporals). Constitutes of 458 are I (imitatives), while those of 459 are C (independent conjunctions).

Forms of class Q occur in one or more constructions of: 415h, 419, 441a, 446, 451-453, 455f, 457, 467, 474a. Members of class T occur in one or more constructions of: 419f, 456,

479a, 488a, 494b. The occurrence of I and C is described in 391 and 393b, respectively.

451. a.  $(Q_n) Q_n^* / Q_n$  where  $Q_n^*$  includes <pahi> 'three' (occurring with one member of  $(Q_n)$ , <naa>) and <syay> 'one' (occurring with the other two members of  $(Q_n)$ , <taah>, <wooh>). 351a.

b.  $Pr Q_n^* / Q_n$  where  $Q_n^*$  includes only <syay> (which has the allomorph //sy<sup>?</sup>my// when occurring in this construction). 321b(8), 354a.

c.  $Q_n^* qQ_n / Q_n$  where  $Q_n^*$  includes <syay> 'one', <waha> 'two', <pahi> 'three', <wacy> 'four', <manyki> 'five', <naa pahi> 'six' (451a), <taah syay> 'seven' (451a), <wooh syay> 'eight' (451a), <qwanyhki> 'nine'. 351b.

d.  $Q_n - h nNh^* h nNh^* / Q_n$  where  $nNh^*$  includes only <ci> 'diminutive'. 351c.

e.  $P_n Q_n^* / Q_n$  where  $Q_n^*$  includes <?ewa> 'much, many' and <na syay> //nahsy<sup>?</sup>my// 'all, altogether' (451b).

<nohi ?ewa> //nohe?ewa//  $Q_n$  very much / many

//nohi nahsy<sup>?</sup>my//  $Q_n$  all (without exception), entirely

f.  $H hA / Q_n, T$  327, 353b.

452. a. Q1- h nNh\* h nNh\* / Q1 where nNh\* includes only <ci'> 'diminutive'. 352.

b. Pp Q1\* / Q1 where Q1\* includes <toki> 'right' and <hohma> 'above'. 354b.

c. N' ~\* nQ1 / Q1 <~> is not present after members of Nf which end in <tyh> vNf,1N (319a, b; 419b, e, f). 355.

d. Nd nQ1\* / Q1 where nQ1\* includes only <ni> 'like'. nQ1 immediately follows the constituent D of Nd (424c) in these forms. When the constituents occur in 453a or 419c, the morpheme <hu> dN (326) occurs after the other suffixes.

<ma hu> Nd that (one) (424c)

<ma ni hu> Q1 like that

<ma ni ' hu> //mani'hi// Q1 just like that (453a)

<ma ni htu Na hu> //manihkuhuñ// Oq like that-obj.

(436f)

e. Pp\* nQ1q / Q1 where Pp\* includes unit morphemes except <tyh> 'subj. third pers.', and constituents of 421a; and where nQ1\* includes <ni> 'like' and <ho> 'with'. 355.

f. Pr nQ1\* / Q1 where nQ1\* includes only <ni> 'like' (which has the allomorph //mahani// when occurring with <na> Pr 'reflexive'). 355.

g. Nh ~ nQ1\* / Q1 where nQ1\* includes <ho> 'with' and <ni> 'like'. 355.

453. In this article, the coverage of  $Q1^v$  extends to constitutes of preceding constructions of this article as well as to unit morphemes and constitutes of constructions of 452 (the only preceding article listing constructions whose constitutes are  $Q1$ ).

a.  $Q1^v (-A) / Q1$  353a.

b.  $Pn Q1^v / Q1$  383.

c.  $Pn Qc / Qc$  383.

d.  $Aq + Q1^v / Q1$  353a.

<qatu?u + nohicawu>  $Q1$  not very good

e.  $Aq + Qc^v / Qc$

<qatu?u + cyhkwyta>  $Qc$  not hard

<qatu?u + nohicyhkwyta>  $Qc$  not very hard

f.  $Aq + Qn^* / Qn$  where  $Qn^*$  includes at least

<ha ihno?o> 'how many, some' (451f), <?ewa> 'many, much',

<hohi ?ewa> 'very many/much' (451e).

<qatu?u + haihno?o> //qatu?u + hihno?o//  $Qn$  no plural amount, not several

<qatu?u + ?ewa>  $Qn$  not many/much

<qatu?u + nohi?ewa>  $Qn$  not very many/much

454. a.  $T^* t / T-$  where  $T^*$  includes only <nowahu> 'now, soon'. 356b.

b.  $T^{-*} (-A) / T^{-}$  where  $T^{-*}$  includes only <pyty>  
'(after a while)'. 353a, 356a.

455. See also 451f.

a.  $T^{-} (T) / T$  356.

b.  $Nw nT / T, V1$  315, 358a.

c.  $V1 vT / T$  358b.

d.  $Pp V1 vT / T$  358b.

e.  $Qn qT / T$  For limitations on the occurrence of  
two of the members of  $qT$ , see 358c. 358c.

456.  $T^v F / T$  395.

<symy nahpy> T once (455e)

<hsy<sup>o</sup>yñ> F only (395)

<symynahpy hsy<sup>o</sup>yñ> T only once

457.  $Nq + Na / T$

<too pi> //too pe// Na, Nf<sup>-</sup> a year, a winter (416c)

//syhmy' + toope// T for one year, for one winter

cf. //syhmy' + toope// Nf<sup>-</sup> one year, one winter (435b)

//wahahtu + toqape// T for two nights

458. a.  $Ia^* + Ia^* / I$  where the two  $Ia$  constituents are morphemically identical. 391a.

b.  $Ib^* Ib^* / I$  where the two  $Ib$  constituents are morphemically identical. 392b.

459.  $Ce^* Ce^* / C$  where only the two combinations given below occur. (Other sequences of members of  $Ce$  are treated as repeated occurrences of construction 439b.)

<tu<sup>o</sup>i tu<sup>o</sup>i> C although

<hnape jaqañ~hnape> C perhaps, apparently

#### 460 Verb Stems

460. Constitutes of the constructions of 461 occur only in construction 463d (with one exception, see 414k); they are labeled U. Constitutes of the other constructions of this section are  $V_1$ ,  $V_t$ ,  $V_{tt}$ , or  $V_x$ ; they occur as constituents in one or more of the constructions of: 414, 415, 419, 455, 460, 470, 480, 490.

461. a.  $nu nU / U$  312, 361a.

b.  $(U) -U / U$  361b, c.

c.  $U- (U) / U$  361b, d.



d.  $Nu^* (U) / U$  where  $Nu^*$  includes <?oha> 'yellow' (312) and possibly others. 361b.

e.  $Pb^* pU / U$  where  $Pb^*$  includes only <puh> 'eyes' (385). 361c.

462. a.  $Pi^* pV / Vt$  where  $Pi^*$  includes <kyh> 'biting', <wyh> 'whipping!!' and <ma> 'pursuing' (386). 367d.

b.  $Pb^* pV / Vt$  where  $Pb^*$  includes only <puh> 'eyes' (385).

<puh ni> //puh ~ni// Vt to see (367d)

c.  $Vt^* vVi^* / Vi$  where  $Vt^*$  and  $vVi^*$  each include two morphemes, each occurring with one of the others, as follows (371a):

<nahqa i> Vi to make a sound

<?eki h..> //?ehki// Vi to eat acorn

d.  $Vi^* vV^~ / Vt$  where  $Vi^*$  includes <jatuha> 'to talk', <ta pyha> 'to get light', and <jaqa> 'to cry'. 371b.

e.  $Vi^* vVtt / Vtt^~$  where  $Vi^*$  includes only <waci> 'to be lost/hidden'. The constitute occurs only with <na> Pr 'reflexive' (321b, 471b). 371c.

f.  $V^?x vVr^* / Vx$  where  $vVr^*$  includes only <?i> 'punctual' (371d). 362b, 371d.

g.  $Vr\ vVr^* / Vi$  where  $vVr^*$  includes only <phi>  
'durative' (371d). 362c, 371d.

h.  $Vr^o\ vVr / Vi$  362d, 371d.

i.  $V^ot\ vVr^* / Vt$  where  $vVr^*$  includes only <oi>  
'punctual' (371d). 362e.

463. a.  $NI^* nVi / Vi$  where  $N^*$  includes unit mor-  
phemes and constitutes of constructions of 411-414. 367a.

b.  $Nu^* nVi^* / Vi$  where  $Nu^*$  includes only <puhi>  
'blue/green' (312) and  $nVi^*$  includes only <tuwa> 'to become  
(like)'.  
<puhi tuwa> Vi to be green

c.  $N^* nVt / Vt$  where  $N^*$  includes unit morphemes  
and constitutes of some constructions of 411-414. 367a.

d.  $U\ uV / Vi$  (461, 361, 367b). 367b.

e.  $I\ iV / Vi$  (391, 458, 367c). 391, 367c.

464. This article treats compounds of verb stems with  
preceding noun or verb stems. In the constructions of 464a-g  
(noun plus verb compounds), the symbols  $Vi$  and  $Vt$  represent  
roots (i.e. monomorphemic members of  $Vi$  and  $Vt$ ) and, in addi-  
tion, a few bimorphemic verb stems. The occurrence of bi-  
morphemic verb stems in these constructions is mentioned for

those in which they have been found; it is probable that there are others in addition to those mentioned, and that bimorphemic verb stems occur in other constructions than the three mentioned below in which they have been found. The noun stems involved are either roots or constitutes of 411b-d; this statement is to be taken as defining the limitation of occurrence of noun stems in these constructions, in lieu of asterisks accompanying the symbols Nr and Nf with separate explanations for each construction.

In verb plus verb compounds (464h-n), the members are usually monomorphemic. There are, however, a few cases in which the first member is a constitute of 462a, b, or 465e; and a few in which the second member is a constitute of 462a, b, f-i. These statements are to be taken as explanations of the asterisked symbols of 464h-n, with the further qualification that only a small number of verb stems occur in each of the constructions listed. A few verb roots (e.g. <pihty> Vi 'to arrive', <kija> Vtt 'to give') have allomorphs with initial //h// when occurring in these constructions (//hpihty//, //hkija//); <wahci> Vi 'to be lost/hidden' has the allomorph ~~/~~wacih// when followed by Vi or Vt.

a. Nr Vi\* / Vi where Vi\* includes a few verb roots.

<nahqa> Nr(P), Vt, Nu car; to hear

<qahma> Vi to ache; to taste

<nahqa qahma> Vi to have an earache

<ta pe> Nr(ta) sun, day (411c)

<cipuhi> Vi to climb

<tape cipuhi> Vi sun to rise

<toja> Nr(pi) mountain

<nywi> Vi (one) to wander

<toja nywi> Vi to hunt, go hunting

<kuh tuhsi> Nr(p~~y~~) dust (411c)

<huu> Vi (water) to flow

<kuhtuhsi huu> Vi (flowing water) to be muddy

b. Nf Vi\* / Vi where Vi\* includes a few roots and at least one bimorphemic stem: <nopih ~> Vi 'to dwell' (463a).

<wajah> Nf black oak acorns; acorns

<wajah nopih~> Vi to go camping for acorns

<pa hsaky> Nf bridge (411d)

<mija> Vi to go

<pahsaky mija> Vi to go on/over a bridge

c. Nr Vt\* / Vi where Vt\* includes a few roots.

<pa hsiwah> Nr(pY) sand (411c)

<noo> Vt to haul

<pahsiwah noo> Vi to haul sand

<mah pih> //mah ~ja// Nr(P,pi) hand, glove (411c)

<maa> Vt to obtain, to buy

//mah~ja maa// Vi to buy gloves

d. Nf Vt\* / Vi where Vt\* includes a few roots and at least one bimorphemic stem: <ma ni> //mahi// Vt 'to pursue' (462a).

<?ahpohsowa> Nf,Nt manzanita berries

//?ahpohsowa mahi// Vi to go to get manzanita berries

//wijah mahi// Vi to go to get acorns

<tyyhna> Nf meat, food

<tyyhna maa> Vi to buy/obtain meat

e. Nr Vt\* / Vt where Vt\* includes a few verb roots and at least one bimorphemic stem: <cih saja> Vt 'to prick (the skin) in order to cause bleeding' (465e).

<mu pih> Nr(P) nose (411c)

<mupih cih saja> Vt\* to prick the nasal septum of (someone) to cause nosebleed (apparently always occurs with <?.ki> vVp 'intermittently' (373a))

<nahqa> Nr(P),Nu,Vt ear; to hear

<tona> Vt to pierce

<nahqa tona> Vt to pierce the earlobes of (someone)

f. Nf Vt\* / Vt where Vt\* includes a few verb roots.

<pa hkwi> Nf,Nbr fish (411b)

<tyky> Vt to put, place

<pahkwi tyky> Vt to put fish (in spring) (apparently always occurs with <ty> Pt 'indefinite object')

<?etyh> Nf bow, gun

<?etyh maa> Vt, Vi to get a gun (from)

g. Nf\* Vtt\* / Vt where Vtt\* includes only <mahqa> 'to give', and Nf\* includes the names of items of food or drink.

<wajah mahqa> Vt to give acorns to

h. Vi\* Vi\* / Vi

<?ooki> Vi to celebrate

<mija> Vi to go

<?ooki mija> Vi to go somewhere to celebrate, to go to  
celebration

<munaa> Vi to go/come to the top of a hill

<pihty> //hpihty// Vi to arrive

<munaa hpihty// Vi to arrive at top of hill

<waawi> Vi to go/come downhill

//waawi hpihty// Vi to arrive at bottom of hill

<wahci> //wacih// Vi to be lost/hidden

<jatuha> Vi to talk

//wacih jatuha// Vi to whisper

i. Vi\* Vt\* / Vi

<ma ni> //mahi// Vt to pursue (462a)

//?ooki mahi// Vi to go eagerly to a celebration

## j. Vi\* Vt\* / Vt

<pee> Vt to call (someone to one's presence)

//wacih pee// Vt to beckon to

<tyky> Vt to put, place

//wacih tyky// Vt to place in hiding, to hide

<tyhka> Vi, Vt to eat

<puh ni> //puh ~ni// Vt to see

//tyhka puh~ni// Vt to serve food to

## k. Vt\* Vi\* / Vt

<tyyja> Vt to be afraid of

<tyyja mija> Vt to go away from in fear

<cipuhi> Vt to climb

<tyyja cipuhi> Vt to climb something or to run away to  
escape from (feared being)

//puh~ni hpihty// Vt to see (someone) arrive

## l. Vt\* Vt\* / Vt

<cih too> Vt<sup>-</sup> (465e) has been found only with

<na> Pr 'reflexive' (321, 471a) and with

<wyna ?i> Vt 'to throw' (4621)

<cihtoo wyna?i> Vt to push

## m. Vi\* Vtt\* / Vt

<johci> Vi to fly, to rise/arise

<tywy> //htywy// Vtt to ask (someone) for (smthg.)

//johci htywy// Vt to ask (someone) to get up

n. Vt\* Vtt\* / Vtt

<hita> Vt to carry/hold in arms

<kija> //hkija// Vtt to give (someone something)

//hita hkija// Vtt to carry (smthg.) to (someone)

465. a. Vi\* vVt / Vt where Vi\* includes roots, constitutes of 462-464, and a few constitutes of 465g. (There are, on the other hand, a few examples of constitutes of 465a occurring as constituents in 465h, q.v.) 372a.

<wojo ʔhi> Vi (several objects) to be lined up  
(462g)

<wojoʔhi hky'> Vt to line up (several objects)

<hupija tu> Vi to sing, make music (463a)

<hupijatu hky'> Vt to cause to sing; to sing for

<puhipono ki> Vi (one) to be blue (463d)

<puhiponoki hky'> Vt to cause to be/get blue

<tah topa> Vi to remove (one's own) shoes (465g)

<tahtopa hky'> Vt to cause (someone) to take off (his)  
shoes, to take off (someone else's) shoes

b. Vt\* vVt / Vtt where Vt\* includes roots, constitutes of some constructions of 462-464, and a few constitutes of 465d-f, h. (But there are also a few cases in which constitutes of this construction occur as ICs in 465f, h.) 372a.

<kyh ni> //kyh ~jy// Vt to bite (462a)

//kyh~jy hky'// Vtt to cause to bite



<wyha ʔi> Vt to throw (462i)

//wynaʔi hky'// Vtt to cause to throw

<cihtoo wynaʔi> Vt to push (4641)

<cihtoowynaʔi hky'> Vtt to cause to push

<cah myhna> Vt to change, turn over (465d)

<cahmyhna hky'> Vtt to cause to change, turn over

<pa tyky> Vt to put in water (465h)

<patyky hky'> Vtt to put in water for (someone); to  
cause (someone) to put (smthg.) in water

c. Vt\* vVw / Vt where Vt\* includes only <puha ʔa> Vt  
'to cast a spell upon, to bewitch' (463o).

<puha ʔa wi> Vt to doctor, heal, cure

d. Pi Vi\* / Vt where Vi\* includes roots and constitutes  
of 462g, h. 386.

e. Pi Vx / Vt (363, 462f). 386.

f. Pi Vt\* / Vt where Vt\* includes roots and consti-  
tutes of 462d, i; 4641 (and possibly 464j, k); and 465a; in  
addition, one example has been found (see below) in which a  
constitute of 465e occurs as a constituent in this construc-  
tion, and it appears possible that other such cases exist.  
386.

<cihtoo wynaʔi> Vt to push (4641)

<wyh cihtoowynaʔi> Vt to push with sidewise motion; to  
crowd against

<qahty hky'> //qaty hky'// Vt<sup>-</sup> has been found

only in:

//wyh qatyhky'// Vt<sup>-</sup> to stack (wood) always preceded

by <ty> Pt 'indefinite object' (324, 468)

<mija hky'> Vt<sup>-</sup> to cause to go (465a) has been

found only with <cah> Pi 'by pulling'

<cah mijahky'> Vt to drive (horse or car)

<tohi> Vx only with <cih> Pi 'with point'

<cih tohi> Vt<sup>-</sup> (465e) has been found only with

<wyh> Pi 'with sidewise motion'

<wyh cihtohi> Vt to strike (a match)

g. Pb Vi\* / Vi where Vi\* includes a few roots, and at least one constitute of each of the constructions of 462g and 463a (and possibly also with constitutes of 462h). 385.

<qawino Rhi> Vi<sup>-</sup> (462g) only with <coh> Pb 'head'

<coh qawinoRhi> Vi to shake the head back and forth

<tyja wi> Vi to die (463a)

<kuh tyjawi> Vi to be burned to death

h. Pb Vt\* / Vt where Vt\* includes a few roots and a few constitutes of 462d, 1, 465a. 385.

<cuhpa hky'> Vt to cause to sink/go down (465a)

<mah cuhpanky'> Vt to push down with the hand

466. a. Vi<sup>v</sup> vVp / Vi 373a.

b.  $Vt^{\vee} vVp / Vt$  373a.

c.  $Vtt^{\vee} vVp / Vtt$  373a.

d.  $Vt^{\#} vtV / Vt$  where  $Vt^{\#}$  includes a few roots, and a few constitutes of some of the preceding articles, as well as constitutes of 467b. This construction occurs only occasionally. 373b.

e.  $Vtt^{\#} vtV / Vtt$  Examples of this construction have not been found, presumably because of the infrequent occurrence of  $\langle ta \rangle vtV$ ; but the construction is listed because it is believed that a larger corpus would show examples, since there are no apparent restrictions on the possibility of their occurrence.

467. a.  $Ql^{\#} h Vi^{\vee} / Vi$  where  $Ql^{\#}$  includes  $\langle cawu \rangle //cawu//$ ,  $//coo//$  'good, well',  $\langle syhta \rangle$  'bad',  $\langle toki \rangle$  'right' (which has the alloeme 'right now, right in the act of ...ing' when occurring in this construction), and those constitutes of 452c of which  $\langle ni \rangle nQl$  'like' is an I6.

$\langle qahma \rangle Vi$  to taste; to ache

$\langle cawu h qahma \rangle Vi$  to taste good

$\langle syhta h qahma \rangle Vi$  to taste bad

$\langle naahma \rangle Vi$  to feel

$\langle cawu h naahma \rangle Vi$  to feel good

<tyhka> Vi, Vt to eat

<toki h tyhka> Vi, Vt to be right in the act of eating  
(right now, or at the time established by the  
context)

<wynyhpYNa + cihcuka> Vi to point at a tree (471g)

<wynyhpYNa+cihcuka tyň> Nf one who is/was pointing  
at a tree (419b)

<wynyhpYNa+cihcukatyň ni> Ql like one who is/was  
pointing at a tree (452c)

<wynyhpYNa+cihcukatyňni h mane> Vi to be like one who  
is/was pointing at a tree, to act as if  
pointing at a tree, to seem to be pointing at  
a tree

b. Ql\* h Vt<sup>v</sup> / Vt where Ql\* includes <cawu> //cawu//,  
//oo// 'good, well' and <toki> 'right' (see above, 467a).

<cih kypana> Vt to lock (465e)

//oo h cihkypana// Vt to lock well

<tyhka> Vt, Vi to eat

<toki h tyhka> Vt, Vi to be right in the act of eating

468. a. Pt Vt<sup>v</sup> / Vi 324.

b. Pt Vtt<sup>v</sup> / Vt 324.

469. a. Pd Vi\* / Vi where Vi\* includes at least <pojo ha> 'to run' (463a) (no other verbal form has been found as an IC of this construction).

//R pojoha// Vi (several) to run (in different places or directions) (382)

b. Pq Vi\* / Vi where Vi\* includes at least <suwahqa> 'to breathe' (no other verbal form has been found as an IC of this construction). 381.

c. Pb\* pPa / Pa<sup>-</sup> where Pb\* includes only <pih> 'buttocks, back'. The constitute has been found only with <qooni> Vi 'to return' (469d). 384a.

d. Pa Vi<sup>v</sup> / Vi For limitations on the distribution of some of the members of Pa (namely those labeled Pa<sup>-</sup>), see 384. 384b.

e. Pa Vt<sup>v</sup> / Vt For limitations on the distribution of some of the members of Pa, see 384b. 384b.

f. Pa Vtt<sup>v</sup> / Vtt For limitations on the distribution of some of the members of Pa, see 384b. 384b.

g. Pn Vi<sup>v</sup> / Vi 383.

h. Pn Vt<sup>v</sup> / Vt 383.

i. Pn Vtt<sup>v</sup> / Vtt 383.

470 Verbal Expressions

470. Constitutes of the constructions of this section occur as ICs in one or more constructions of 470, 480, and 490. In addition, some of them occur as ICs in 419a, b, and 455c, d.

471. In this article, the symbol  $Vt^v$  is used to designate classes including not only constitutes of preceding articles (i.e. of 460) but also constitutes of preceding constructions of 461 itself.

a. Pr  $Vt^v$  / Vi 321b.

b. Pr  $Vtt^v$  /  $Vt, Vi$  The constitutes generally occur as  $Vt$  (as constituents in one of the following constructions), but can occur as  $Vi$  (i.e. without a second object). 321b.

c. Pdr  $Vt^v$  / Vi 321b.

d. Pdr  $Vtt^v$  /  $Vt, Vi$  (Cf. 471b, f.) 321b.

<cah myhna>  $Vt$  to turn over, change (465d)

<cahmyhna hky'>  $Vtt$  to cause to change/turn over  
(465b)

<Rhna cahmyhna hky'>  $Vt$  to cause to change each other

e. Pp  $Vt^v$  / Vi 321a, 322.

<?a Rhnacahmyhna hky'>  $Vi$  to cause them to change (position with) each other

<qahoo'na> Nf box

<qahoo'naNa + 'a> Pp box (obj.) (423d)

<qahoo'naNa+'a cahmyhna> Vi to turn over the box

<qahoo'naNa+'a Rhnacahmyhna'ky'> Vi to cause the boxes  
to change (position with) each other, i.e. to  
interchange the positions of the boxes

Further examples are given in 471g.

f. Pp Vtt<sup>v</sup> / Vt,Vi The constitutes occur either as  
Vt in 471g, or as Vi. (This it is possible for Vtt to occur  
with only one object. There are never two occurrences of Pp  
in a single verb form.)

<nohqaqa> Vtt to steal (smthg.) from (someone)

(366)

<ny nohqaqa> //°i nohqaqa// Vt,Vi to steal (smthg.)

from me

<pani hky'> Vtt to haul (smthg.) for (someone); to  
cause (someone) to haul smthg.) (465b)

//°i panihky'// Vt,Vi to haul (smthg.) for me

<kija> Vtt to give (smthg.) to (someone)

//°i kija// Vt,Vi to give (smthg.) to me

g. O + Vt<sup>v</sup> / Vi The occurrence of O (436) as object  
of Vt (except those members of Vt which are constitutes of  
471f, for which no choice is possible), as apposed to O+Pp/Pp  
(423) is related to a subtle difference in meaning, which can

roughly be described as follows: where O+Pp/Pp occurs (471e), there is a more definite or complete participation of the entity designated as object; the occurrence of O alone (471g) is related to partial or limited participation as goal of the action. In translation into English, O+Pp/Pp can usually be rendered as "the ...", while O can be rendered "a ..." or "some ...".

<pa pih> //pa~ja// Nf water (411d)

<hipi> Vt,Vi to drink

//pajaNa + hipi// Vi to drink some water

//pajaNa+<sup>o</sup>a hipi// Vi to drink the water (e.g. all of the water in the cup) (471e)

<puhku Na> Of dog (obj.) (436a)

<puh ni> //puh~ni// Vt to see (462b)

//puhkuNa + puh~ni// Vi to see a dog

//puhkuNa+<sup>o</sup>a puh~ni// Vi to see the dog (471e)

<pahsiwahpY Na> Of sand (obj.) (436a)

<puh hai> Vt to look for (465h)

<pahsiwahpYNa + puhhai> Vi to look for sand

<nywihi Na> //<sup>o</sup>iwihi Na// Of my knife (obj.)

<wa<sup>o</sup>i> Vt to find

//<sup>o</sup>iwihiNa+<sup>o</sup>a wa<sup>o</sup>i> Vt to find my knife (471e)

//<sup>o</sup>iwihiNa + <sup>o</sup>inohqaa// Vi to steal my knife from me (cf. 471f)

//pahsiwahpYNa + <sup>o</sup>ipanihky'// Vi to haul sand for me

//puhkuNa + <sup>o</sup>ikija// Vi to give me a/the dog (cf. 471f)



472. a.  $V^?a vVr^* / vVa$  where  $vVr^*$  includes only  $<?i>$  'punctual'. 362a.

b.  $Vi^* vVc^* / vVa$  where  $Vi^*$  includes only  $<mija>$  'to go' and  $<mija ?..ki>$  'to go hesitantly' (466a); and where  $vVc^*$  includes only  $<poto>$  'back and forth'. ( $<mija>$  does not occur by itself as an auxiliary.)

mijapoto  $vVa, Vi$  to go back and forth (473b)

//mi?jahki poto//  $vVa, Vi$  to go back and forth hesitantly

c.  $Vi^* h^* vVa / Vi$   $<h>$  is not present when the auxiliary is  $<nywi>$  '(sg.) around' or  $<moo>$  '(pl.) around' if the preceding  $Vi$  ends in  $<naki>$   $Vt$  'to follow' or  $<?..ki>$   $vVp$  'hesitantly, intermittently'. 374, 362a, 396a.

$<hahkwihsa?i h mijapoto>$   $Vi$  to go back and forth  
sneezing (463e)

$<gooni h mijapoto>$   $Vi$  to keep going away and returning  
 $<?aahqoonihky' h mijapoto>$   $Vi$  to cause it to go back  
and forth (hither and thither) (471e)

$<pohpi>$   $Vi$  to go across

//pohpi h mi?jahkipoto//  $Vi$  to keep crossing back and  
forth

d.  $Vi^* h vVa^* / Vi$  where  $Vi^*$  includes constitutes of 472c not containing  $<qahty>$   $vVa, Vi$  'to sit, stay' as the auxiliary; and where  $vVa^*$  includes only  $<qahty>$  (which is used in this situation for both singular and plural subjects).

- <qwapi h tyky> Vi (several) to be lying (472c)  
 <qwapihtyky h qahty> Vi (several) to keep on lying  
 <qahtyhtyky h qahty> Vi (one) to keep on sitting

473. In this article, Vi<sup>v</sup> includes constitutes of constructions listed above in 473 itself, as well as constitutes of constructions listed in preceding articles.

- a. Vi<sup>v</sup> vVb / Vi 375a.  
 b. Vi<sup>v</sup> vVc / Vi 375b.  
 c. Vi<sup>v</sup> vVd / Vi 375c.  
 d. Vi<sup>v</sup> vVe / Vi 375d.

474. In 474b, Vi<sup>v</sup> includes some constitutes of 474a, as well as constitutes of preceding articles.

- a. Q + Vi<sup>v</sup> / Vi The class Q includes Qn (354a, 451, 453f), Ql (354b, 452, 453), and Qc (354c, 453). Of the members of Qn, only <?ewa> 'much, many' and <na symy> 'all' (451b) have been found in this construction.

<cyhkwyta> Qc with effort, hard

<tawano hu> Vi to get to be spring (473a)

<cyhkwyta + tawanohu> Vi to get to be late in spring

<nohi cawu> Ql very good/well (453b)

<tyhka h mai> Vi to be (in process of) eating (472c)

<nohicawu + tyhkahmai> Vi to be eating very well

<'ihsa' ~ ni> Q1 coyote-like (452c)

<sunawi> Vt to appear, look

<'ihsa' ~ ni + sunawi> Vi to look like a coyote

<'ewa> Qn much, many

<tyhoi> Vi, Vt to dig

<'ewa + tyhoi> Vi to dig a lot

<na syny> Qn all, altogether, entirely (451b)

<mija goi> Vi to go collectively (473c)

//nahsy'my + mijagoi// Vi all to go together

b. L + Vi\* / Vi

<'ijañ nañ> L there (446v)

<nohicawu + tyhkahmai> Vi to be eating very well

(474a)

<'ijañnañ + nohicawu+tyhkahmai> Vi to be eating very well

there

<hanañ tukuñ> //hahnoh tukuñ// L to where/somewhere

(446n)

<mija h mai> Vi to be (in process of) going, to

have gone ... so far (and be continuing

to go)

//hahnoh tukuñ + mijahmai// Vi to have gone to where/some-

where so far

<'anaqahtyhnuñ ~ weoh> //ahnaqahtyhnuñ ~ weeh// L

in a/the chair (446g)

<qahty h tyky> Vi to be sitting (472c)

//<sup>?</sup>ahnaqahtyhnuñ<sup>~</sup>weeh + qahtyhtyky// Vi to be sitting

in a/the chair

<<sup>?</sup>a wyhpaa<sup>?</sup>wi> Vi to split it (471e)

<wihi ~ hmañ> I with a/the knife (446g)

<wihi<sup>~</sup>hmañ + <sup>?</sup>awyhpaa<sup>?</sup>wi> Vi to split it with a/the  
knife

475. Vi<sup>~</sup> vWk / Vi<sup>-</sup>, IN The constitutes occur as Vi in 476-478, 455c-d, and 419a-b, but not in 479, 481-482, 491, 496. When not occurring as Vi, they occur as IN (480). 376.

476. a. vv vVf<sup>\*</sup> / vVf where vVf<sup>\*</sup> includes <ki'> 'come' and <kaa> 'go'. 377a.

b. Vi<sup>~</sup> vVf / Vi 377.

477. Vi<sup>~</sup> vVg / Vi<sup>-</sup> The constitutes are limited in their occurrence in following constructions as follows: where vVg is <hkwa> 'distant future', the constitutes do not occur with <waih> vWw 'near future' (478), <hpy> vIN 'perfect tense' (482), or <hna<sup>?</sup>i> vIM 'emphatic imperative' (492); where vVg is <hmaa> 'already', the constitutes do not occur with <waih> vWw (478), <hti> vIN 'neutral tense' (482), or <hna<sup>?</sup>i> vIM (492); where vVg is <tuwa> 'could, would', the constitutes do not occur with <hti> vIN (482) or <hna<sup>?</sup>i> vIM (492). 378.

478. Vi<sup>v</sup> vWw / IN, Vi<sup>w</sup> The constitutes occur as Vi in 455c-d and 419a-b (but not in 479, 480). When not occurring in 419a-b, 446c-d they are IN. 379a.

479. a. T + Vi<sup>v</sup> / Vi

<°a tokihtapenañkaa neñ> //°a tokihtapenakaana//

T as it was/is going on towards noon,  
shortly before noon (455d)

<johci> Vi to fly, to arise (from bed)

//°atohkihtapenakaana + johci// Vi to get up shortly  
before noon

cf. //°atohkihtapenakaana+johci hsi// T having gotten  
up shortly before noon (455c)

<ny muhsinahti neñ> //°imuhsinahtina// T while I  
am/was stooping and dodging while going  
along (455d)

<ny cihpahti°i> //°icihpahti°i// Vi to poke me in  
the eye with pointed object (471e)

//°imuhsinahtina + °icihpahti°i// Vi to poke me in the  
eye with pointed object (e.g. twig) while I  
am/was going along stooping and dodging (e.g.  
through the brush)

<nowahu> T now, soon

<tawuhna~weeh + mija> Vi to go to town (474b)

<nowahu + tawuhna~weeh+mija> Vi to go to town now/soon

<pohta waih> Vi to be going to pound acorns (in  
near future) (470) (as IN: 'will  
pound acorns in near future')

<mowahu + pohtawaih> Vi to be going to pound acorns now

b. Aq + Vi\* / Vi

<qatu'u + mija> Vi not to go

cf. <qatu'u+mija hna> Nr(P) act of not going (419a)

<qatu'u+ 'a mijahna> //qatu'u+'ahmijahna// Nf his  
failure to go, the fact that he is/did  
not going/go (431a)

#### 480 Indicative Expressions.

480. Constitutes of the constructions of this section are members of the class IN. Some members of IN occur as constituents in constructions of 480. All of them occur in immediate constituency with <.> Z (398), the constitutes being sentences.

481. a. Vi\* vkk / IN, Vi- where Vi\* includes roots and constitutes of 460 and 471-474. (This is the same construction as 475, q.v.) 376.

b.  $Vi^* vWw / IN, Vi^-$  where  $Vi^*$  includes roots and constitutes of 460 and 471-477. (This is the same construction as 478, q.v.) 379a.

482.  $Vi vIN / IN$  (As stated in 475, 478,  $Vi$  of this construction does not include constitutes of those articles.) For limitations on the occurrence of constitutes of 477 in this construction, see 477. 377, 378.

<qahoo?naNa+?a Rhnacahmyhnahky'>  $Vi$  to interchange  
the positions of the boxes (471e)

<qahoo?naNa+?aRhnacahmyhnahky' hti>  $IN$  interchanged  
the positions of the boxes

<ny nohqaa> //?i nohqaa//  $Vi, Vt$  to steal (smthg.)  
from me (471f)

//?inohqaa hpy//  $IN$  has stolen (it) from me

//pajaNa + hipi//  $Vi$  to drink some water (471g)

//pajaNa+hipi hti//  $IN$  drank some water

<qwapihtyky h qahty>  $Vi$  (several) to keep on lying  
(472d)

<qwapihtykyhqahty hti>  $IN$  (several) keep/kept on lying

<?ihsa'~ni + sunawi>  $Vi$  to look like a coyote  
(474a)

<?ihsa'~ni+sunawi hti>  $IN$  looks/looked like a coyote

//?ahnaqahtyhnuf~weeh + qahtyhtyky//  $Vi$  to be  
sitting; in a/the chair (474b)

//<sup>o</sup>ahnaqahtyhnuñ~weeh+qahtyhtyky hti// IN is/was sitting  
in a/the chair

//<sup>o</sup>atohkihtapenakaana + johci// Vi to get up  
shortly before noon (479a)

//<sup>o</sup>atohkihtapenakaana+johci hti// IN got up shortly  
before noon

<qatu<sup>o</sup>u + mija> Vi not to go (479b)

<qatu<sup>o</sup>u+mija hti> IN didn't go, is not going

483.  $IN^* nQ1^* qN / IN$  where  $IN^*$  includes only those  
constitutes of 482 of which the  $vIN$  constituent is <hpy>  
'perfect tense' (379b), and  $nQ1^*$  includes only <ke> 'having'  
(355). The sequence <hpy>  $vIN$  followed by <ke>  $nQ1$  followed  
by <htu>  $qN$  (which occurs only in constitutes of this con-  
struction) indicates distant past time.

//<sup>o</sup>inohqaga hpy// IN has stolen it from me (482)

//<sup>o</sup>inohqagahpy ke htu// IN stole it from me a long time  
ago

<mijahpy ke htu> IN went a long time ago

//<sup>o</sup>apuh~nihpy ke htu// IN saw it a long time ago

484. a.  $N^* + IN^* / IN$  where  $N^*$  includes  $Nf, Nh, Nq$   
but not  $Np, Nd$ .

<qahoo<sup>o</sup>naNa+<sup>o</sup>aRhnacahmyhnahky' hti> IN interchanged  
the positions of the boxes (482)



<poihipoi + qahoo?naNa+?akhnacahmyhnahky'hti> IN Poipoi

interchanged the positions of the boxes

//?inohqaqahpy ke htu// IN stole it from me a long  
time ago (483)

//poihipoi + ?inohqaqahpykehtu// IN Poipoi stole it from  
me a long time ago

<waha htu> Nq two (419c)

<kihma hti> IN came/is coming (482)

<wahahtu + kihmahti> IN two (e.g. people) came, two are  
coming

<haqefi + kihmahti> IN who/someone came/is coming

b.  $N_a^D + IN^+ / IN^-$  (403). The constitutes generally  
occur only in 488 or 489. Some occurrences have been found  
of constitutes of this construction occurring in IC with  
<.> Z, but the order of 484c is preferred under these  
circumstances.

//mahu + ?inohqaqahpy//  $IN^-$  that one has stolen it from  
me (489a)

//?ipehu + mahu+?inohqaqahpy// IN maybe that one  
has stolen it from me (489a)

//mahu ~ tai +?inohqaqahpy// IN that one has stolen  
it from me! (489b)

//qatu?u + mahu+?inohqaqahpy// IN that one didn't  
steal it from me (488b)

c. , , +<sup>\*</sup> N<sub>d</sub><sup>D</sup> IN<sup>v</sup> / IN<sup>-</sup> (404c) If the N<sub>d</sub><sup>D</sup> constituent is <ta my> //taa// Np 'we (incl.)' (424a) or <tamy hkwa'> //taa hkwa'// Np 'we (incl.)' (425), <~> appears as tactic juncture instead of <+>. The constituents of this construction do not occur in 488 or 489.

//qahoo<sup>o</sup>naNa + nyy +<sup>o</sup>aRhnaahmyhnaiky'hti// IN<sup>-</sup> I inter-  
changed the positions of the boxes

//<sup>o</sup>inohqahpy + mahu// IN<sup>-</sup> that one has stolen it from  
me

//<sup>o</sup>ahnaqahtyhnuñ<sup>~</sup>weeh+qahty waih// IN<sup>-</sup> will sit in  
a/the chair (472)

//<sup>o</sup>ahnaqahtyhnuñ<sup>~</sup>weeh + nyy +qahtywaih// IN<sup>-</sup> I'm going  
to sit in the chair

//nopih<sup>~</sup>weeh+mija waih// IN will go home (482)

//nopih<sup>~</sup>weeh ~ taa +mijawaih// IN<sup>-</sup> we shall go home,  
let's go home

//nopih<sup>~</sup>weeh + nyy +mijawaih// IN<sup>-</sup> I shall go home

485. Of<sup>\*</sup> + Np<sup>\*</sup> / IN where Of<sup>\*</sup> includes at least <haihpY Na> //hihpYNa// 'what/something-obj.' (436a); and where Np<sup>\*</sup> includes at least <<sup>o</sup>yh my> //<sup>o</sup>yy// 'thou' (424a) and <<sup>o</sup>yhmy hkwa'> //<sup>o</sup>yyhkwa'// 'y'all' (425).

//hihpYNa + <sup>o</sup>yy// IN what art thou (doing)?

//hihpYNa + <sup>o</sup>yyhkwa'// IN what are y'all (doing)?

486. "Noun plus Noun Predications". The constructions of this article are of the general type  $N + N / IN$ . One of the ICs (referred to as  $N_1$  in what follows) designates a particular entity, while the other (referred to as  $N_2$ ) designates either a class of entities of which  $N_1$  is asserted to be a member, or an entity (often of temporary existence) which is equated to  $N_1$ . In translation into English, these expressions can usually be rendered: "' $N_1$ ' is a/the ' $N_2$ '" (although such translations are often not as effective as other possible ones in particular cases). In 486b, the  $N_1$  constituent has the meaning  $N_2$ . In the other constructions, the constituent represented by the second  $N$  of the formula is  $N_2$ .

a.  $N_1 + N_2 / IN$

<nohi tyhpepi> //nohi tyhpepiY//  $N_1$  one who talks  
too much (418b)

//poihipoi + nohityhpepiY// IN Poihipoi talks too much

//pa~jaNa + hipi// Vi to drink some water (471g)

//pa~jaNa+hipi tyh//  $N_1$  one who is drinking water  
(419b)

//poihipoi + pa~jaNa+hipityh// IN Poihipoi is drinking  
water

<syjee hty'>  $N_1$  coward (419b)

<ny puhku> //?i puhku//  $N_1$  my dog (431a)

//<sup>o</sup>ipuhku + syjehty'// IN my dog is a coward, my dog  
is cowardly

//<sup>o</sup>ipuhku ~ po<sup>o</sup> +syjehty'// IN but my dog is a  
coward (489b)

//<sup>o</sup>i nopih// Nf my house (431a)

//<sup>o</sup>inopih Na// Of my house-obj. (436a)

<nynopihNa + <sup>o</sup>a> Pp my house (obj.) (423d)

<qwaatyh weeh> pL beyond (443b)

//<sup>o</sup>inopihNa+<sup>o</sup>ah qwaatyhweeh// L beyond my house  
(446a)

//<sup>o</sup>inopihNa+<sup>o</sup>ahqwaatyhweeh tyñ// Nf that which is  
beyond my house (419e)

<tahqahti'> Nf sourberries

//<sup>o</sup>inopihNa+<sup>o</sup>ahqwaatyhweehtyñ + tahqahti'> IN beyond  
my house are (some) sourberries

b. Nq + Nf / IN

<<sup>o</sup>ynty' y> Nf<sup>-</sup> (412b)

<<sup>o</sup>ynty'y ~ ni> Ql strange, fearful (452c)

<<sup>o</sup>ynty'y~ni htu> Nq strange/fearful one (419c)

<qahma hna> Nr(P) illness (419a)

//<sup>o</sup>ah qahmahna// Nf his/her illness (431a)

//<sup>o</sup>ynty'y~nihtu + <sup>o</sup>ahqahmahna// IN his/her illness is  
strange

<qatu?u htu> qatu?u htu

//niihmaxahke h tu?// IN (excl.) money-dim.

(432a)

//qatu?uhti + niihmaxahke h tu?// IN our money (dim.)

is none/non-existent; i.e. we have no money

c. Nh + N / IN

//haqeñ + ?yy// IN occurs in

//haqeñ ~ wa?u + ?yy// IN who art thou? (433b)

//haqeñ + kihmatyñ// IN who/someone is coming

//haqeñ ~ wa?u + kihmatyñ// who is coming?

//haqeñ ~ wa?u + mihu// IN who is that?

d. Constructions 436d and 436e are alternants whose occurrence is determined by the same conditions as those which are involved in the occurrence of 434b, c.

$N_d^D + N^* / IN^-$  where  $N^*$  includes Nf, Nq. The constituents generally occur only in 433 or 439.

//pa~jaNa+hipi tyñ// Nf one who is drinking water

(419b)

//nyy + pa~jaNa+hipityñ// IN^- I am drinking water

//nyy ~ po?o + pa~jaNa+hipityñ// IN^- but I am

drinking water (433b)

//mahu + syjeenty?// IN^- that one is a coward

//mahu ~ po?o + syjeenty?// IN^- but that one is a

coward

e. , , +<sup>\*</sup> N<sub>d</sub><sup>P</sup> N<sup>\*</sup> / IN<sup>-</sup> where N<sup>\*</sup> includes Nf, Nq. The constituents do not occur in 488 or 489. <~> occurs as tacitic juncture instead of <+> if the N<sub>d</sub><sup>P</sup> constituent is <ta my> //taa// Np 'we (incl.)' or <tany hkwa'> //taa hkwa'// Np 'we (incl.)'.

//pa~jaŋa + nyy +hipityñ// IN<sup>-</sup> I am drinking water

//pa~jaŋa ~ taa +hipityñ// IN<sup>-</sup> we are drinking water

<nopih ~ weeh> L in the house, at home (446g)

<qahty h tyky> Vi to be sitting/staying (472c)

<qahtyhtyky ?i> Vi (dim. subj.) to be sitting/  
staying (473d)

<nopih~weeh + qahtyhtyky?i> Vi (dim.) to be  
sitting/staying at home (474b)

<nopih~weeh+qahtyhtyky?i tyñ> Nf one who is  
sitting/staying at home (dim.) (419b)

//nopih~weeh ~ taa +qahtyhtyky?ityñ// IN<sup>-</sup> we are staying  
at home

//nopih~weeh + nyy +qahtyhtyky?ityñ// IN<sup>-</sup> I am staying  
at home

//nopih~weeh + mahu +qahtyhtyky?ityñ// IN<sup>-</sup> that one is  
staying at home

<syjehty' + mahu> IN<sup>-</sup> that one is a coward

487. a. L + N<sup>\*</sup> / IN where N<sup>\*</sup> includes Nf, Nq.  
Occasionally, the order of the ICs is reversed; i.e. we have

N + L / IN. The occurrence of this order seems to be related to emphasis upon what is referred to by the N constituent. (See the last example below.)

//<sup>o</sup>iwooh ~ weeh// L in my head (446g)

//<sup>o</sup>icohpiki// Nf my brains (431a)

//<sup>o</sup>iwooh~weeh + <sup>o</sup>icohpiki// IN my brains are in my head

//<sup>o</sup>ahnatyhkahnuñNa+<sup>o</sup>a tuheñ// L under the table

//<sup>o</sup>imohqo// Nf my shoe(s) (431a)

//<sup>o</sup>ahnatyhkahnuñNa+<sup>o</sup>atuheñ + <sup>o</sup>imohqo// IN my shoe(s)

is/are under the table

//nopih~nihweeh + nanootyñweeh> L in the house-

trailer; "in the house-like thing-which-

is-being-hauled"

//nopih~nihweeh+nanootyñweeh + <sup>o</sup>yny<sup>o</sup>// IN a white man

is in the house-trailer

<typicihhuu<sup>o</sup>Na+<sup>o</sup>a <sup>o</sup>unañpaah> L on the other side

of the San Joaquin River (446a)

<typicihhuu<sup>o</sup>Na+<sup>o</sup>a<sup>o</sup>unañpaah + poihpoi> IN Poipoi is on

the other side of the San Joaquin River

<<sup>o</sup>inañpaah hsu> L on this side (and nowhere else)

(448)

//<sup>o</sup>ah puhku// Nf his/her dog (431a)

//typicihhuu<sup>o</sup>Na+<sup>o</sup>ah<sup>o</sup>unañpaah+poihpoi. <sup>o</sup>ahpuhku~po<sup>o</sup>+<sup>o</sup>

<sup>o</sup>inañpaahhsu.// Poipoi is on the other side of

the San Joaquin River. But his dog is on this

side (and nowhere else).

b.  $N_q^D + L / IN^-$  The constituents generally occur only in 488 or 489. Cf. 484b-c, 486d-e.

<mahu + nopih~weeh>  $IN^-$  that one is in the house

<mahu ~ tai +nopih~weeh>  $IN$  that one is in the house! (489b)

<'ipehu + mahu+nopih~weeh>  $IN$  maybe that one is in the house (489a)

<qatu'u + mahu+nopih~weeh>  $IN$  that one is not in the house (488b)

c. , , +<sup>\*</sup>  $N_q^D L / IN^-$  The constituents do not occur in 488 or 489. If the  $N_q^D$  constituent is <ta ny> //taa// Np 'we (incl.)' or <tamy hkwa'> //taa hkwa'// Np 'we (incl.)', <~> appears as tactic juncture instead of <+>.

<nopih~weeh + mahu>  $IN^-$  that one is in the house

//poihipoiNa+'ahnopih ~ weeh// L in Poipoi's house

//poihipoiNa ~ taahkwa' +'ahnopih~weeh//  $IN^-$  we are in

Poipoi's house

//'ahnopih~weeh ~ taahkwa'//  $IN^-$  we are in his house

488. In both constructions of this article and in 489a, the tactic juncture <+> is present except when the initial morpheme of the  $IN$  constituent is <ta> Pp 'inclusive person' (321a), in which case <~> appears instead as tactic juncture (cf. 484c, 486e, 487c). This statement is to be taken as



explaining the symbol +\* in those constructions.

a. T +\* IN<sup>v</sup> / IN The analysis of the occurrence of members of T is not complete. Some occurrences have been found of T occurring in IC with Vi (479a), others of T occurring in IC with IN. It is possible that there are actually two classes to be distinguished among the forms classed as T in this description.

//nyy + pahkwikahty'// IN<sup>v</sup> I am one who is  
accustomed to fishing (486d)

<°uno°oho hsu> T formerly (455a)

//°uno°ohohsu + nyy+pahkwikahty'// IN formerly I used  
to go fishing

b. Aq +\* IN<sup>v</sup> / IN 359a.

<mahu + °yny'> IN that one is a white man (486d)

<qatu°u + mahu+°yny'> IN that one is not a white man

//nyy + pa~jaNa+hipityñ// IN I am (one who is)  
drinking water (486d)

//qatu°u + nyy+pa~jaNa+hipityñ// IN I'm not drinking  
water

489. a. C +\* IN<sup>v</sup> / IN +\*: see 488. (393b)

//°ipehu + mahu+°inohqaqahpy// IN maybe that one has  
stolen it from me (484b)

<°ipehu + mahu+nyyhmy> IN maybe that's an Indian (436d)

b. ,, ~ Ce IN / IN Subject to certain limitations which have not been analyzed, constitutes of this construction and of 489a may occur as constituents in this construction.

//<sup>o</sup>inohqaga hpy// IN has stolen it from me (482)

//<sup>o</sup>inohqagahpy ~ tai// IN has stolen it from me!

//poi hpoi ~ tai +<sup>o</sup>inohqagahpy// IN Poipoi has stolen it from me! (484a)

//<sup>o</sup>yny'y~nihtu + <sup>o</sup>ahqahmahna// IN his/her illness is strange (486b)

//<sup>o</sup>yny'y~nihtu, ~ tii +<sup>o</sup>ahqahmahna// IN his/her illness is strange!

//qatu<sup>o</sup>uhtu + niihnhawahkuhci'// IN our (excl.) money (dim.) is non-existent (486b)

//qatu<sup>o</sup>uhtu ~ tijañ +niihnhawahkuhci'// IN also, our money (dim.) is non-existent

//qatu<sup>o</sup>uhtu~tijañ ~ jaihsi +niihnhawahkuhci'// IN and also, our money (dim.) is non-existent

//<sup>o</sup>ahnatyhkahnuñNa+<sup>o</sup>atuheñ + <sup>o</sup>imohqo// IN my shoes are under the table (487a)

//<sup>o</sup>ahnatyhkahnuñNa ~ py<sup>o</sup>y +<sup>o</sup>atuheñ+<sup>o</sup>imohqo// IN are my shoes under the table?

//<sup>o</sup>uno<sup>o</sup>ohohsu + nyy+pahkwikahty'// IN formerly I used to go fishing (488a)

//<sup>o</sup>uno<sup>o</sup>ohohsu ~ po<sup>o</sup>o +nyy+pahkwikahty'// IN but formerly I used to go fishing

<?ipehu + mahutnyyhmy> IN maybe that's an Indian  
(489a)

<?ipehu ~ po'o +mahutnyyhmy> IN but maybe that's an  
Indian

#### 490 Non-indicative Frustums

490. Constitutes of the constructions of this section occur in IC with <.> Z (398), the constitutes being sentences. (They share this feature of distribution with members of IN (480) and members of the classes listed in 402b.)

491. Pp\* Vi\* / IM where Pp\* includes only <?a> 'third person', and where Vi\* includes unit morphemes and constitutes of 460 and 470 except the following: 471b-g, 475, 477, 478, 479b. When occurring with constitutes of 474, 479a, <?a> Pp 'third person' immediately precedes the verb stem.

<mija h noo> Vi to go along (472c)

<?a mijahnoo> IM go along!; goodbye! (said to person departing)

<qahty h tyky> Vi to be sitting, staying (472c)

<?a qahtyhtyky> IM sit/stay!; goodbye! (said by person departing)

<nopih~weeh + ?ika> Vi to enter the/a house

(474b, 446g, 411d)

<nopih~weeh+ ?a ?ika> IM go into the house!

492. The class IM includes, besides the constitutes of 491-495, members of Vi except constitutes of 475, 477, 478, and 479b; the remaining members of Vi (except constitutes of 471b-g, which are excluded from the possibility of occurring in 491) occur in 491 or occur alone as IM (or either) depending upon specific usages for individual cases or some general conditioning factors which have not been determined (if they exist), or both. In the constructions of this article and the following ones, IM<sup>v</sup> is to be taken as including members of Vi (except those excluded explicitly or by conjecture in the foregoing remarks) as well as IM constitutes of preceding articles. The morpheme <hna?i> vIM 'emphatic imperative' (379o) appears not to be obligatory in any of its occurrences (i.e. any form with which it occurs may occur alone as a member of IM).

IM<sup>v</sup> vIM / IM

<nopih~weeh+ ?a ?ika> IM go into the house! (491)

<nopih~weeh+?a?ika hna?i> IM go into the house!

(emphatic)

<?amahtahkaahsi + mija> Vi,IM as Vi: to go

after having abandoned it; as IM: having

abandoned it, go! (470a, 455c, 476,  
471e)

<?amaahkahhsi+mija hna?i> IM having abandoned it,  
go! (emphatic)

493. Np\* + IM / IM where Np\* includes <?yh my>  
//?yy// 'thou', //?yyhkwa'// 'y'all', <na my> //pyy//  
'oneself', //pyyhkwa'// 'oneselves', and combinations of  
these forms with <hsu> F 'precisely' (438, 395).

//?yy + ?ahipi// IM you drink it!

//pyyhsu + ?ahipi// IM drink it yourself!

494. a. Am + Nf\* / IM where Nf\* includes only those  
constitutes of 419b which contain <tyñ> vNf,IN 'one who is/  
was ...ing' (319a) as an IC. 359b.

//mino?o + hahkyhpo?noh?kakityñ// IM don't fool around!  
(419b, 466a, 463d, 451a)

b. Am + T\* / IM where T\* includes only those consti-  
tutes of 455c which contain <neñ> vT 'while ...ing' (353b)  
as an IC. 359b.

<mino?o + hahkyhpo?noh?kakineñ> IM don't fool around!  
(cf. 494a)

<mino?o + nopih~weeh+?ikaneñ> IM don't go into the  
house! (cf. 491, 492)

435. ,, nKp IM<sup>v\*</sup> / IM where IM<sup>v\*</sup> does not include  
constitutes of 433. (322).

<nopih~weeh hkwa' +<sup>o</sup>a<sup>o</sup>ika> IM go ye into the house!

<mino<sup>o</sup> hkwa' +nopih~weeh+<sup>o</sup>ikaneh> IM go ye not into  
the house!

<mija hna<sup>o</sup>i> IM go! (492)

<mijahna<sup>o</sup>i hkwa'> IM go ye!

496. a. N op + Vi<sup>\*</sup> / OP where Vi<sup>\*</sup> includes unit  
morphemes and constitutes of 460 and 470 except 475, 477,  
478. The class op contains one member, <hsahqwa> (394).

//<sup>o</sup>yy hsahqwa + nopih~weeh+<sup>o</sup>ika// OP you ought to go  
into the house (474b, 446g, 411d)

//poihpoi hsahqwa + <sup>o</sup>ikija// OP Poipoi ought to give  
it to me, would that Poipoi would give it  
to me

b. N op + N / OP This construction occurs very rarely  
in the corpus which has been analyzed, although there are no  
apparent restrictions on the occurrence of members of N in  
it. Presumably, its rarity is due to the infrequency with  
which situations appropriate for its use occurred during the  
linguistic investigation and in the texts collected.

<tawahahni<sup>o</sup>i> Vi to work

<tawahahni<sup>o</sup>i <sup>o</sup>i> Vi (dim.) to work (473d)

<tawahahni'i'i waih> Vi<sup>-</sup>, III as Vi: (dim.) to be  
going to work (in near future) (478)

<tawahahni'i'iwaih hna> Nr(P) object of future  
work (by dim. subj.) (413a)

//taih tawahahni'i'iwaihhna// Nf our future work  
(431a)

//mahu hsahqwa + taihtawahahni'i'iwaihhna// OP that  
ought to be our future work, i.e. would that  
we were going to work at that (in near future)

497. a. Nf\* (E) / E where Nf\* includes only <'yny'>  
'strange/terrible being, white man'. 392a.

b. Vi\* (E) / E where Vi\* includes only <'yty'y'> 'to  
be hot' and <'yoy'y'> 'to be cold'. 392a.