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ELEMENTS OF THE KATO LANGUAGE

BY

PLINY EARLE GODDARD

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## INTRODUCTION

In general structure all the Athapascan languages have great uniformity. The nouns, when not monosyllabic, are built upon monosyllables by suffixes, or are sentence verbs used as substantives. The verbs have adverbial prefixes expressing spatial relations, subjective and objective prefixes expressing syntactical relations, stems which often indicate the character and number of the subject or object, and suffixes with temporal, modal, and conjunctive force.

This general structure has been rather fully discussed in the treatment of the Hupa dialect.<sup>1</sup> As has been said in another place,<sup>2</sup> the Kato dialect differs from Hupa sufficiently to make them mutually unintelligible. While this is due chiefly to phonetic changes, in a lesser degree it is due to differences in vocabulary, particularly nouns of descriptive meaning. The suffixes of the verbs also differ considerably. The elements which compose the words of each dialect are nearly all identical except for the phonetic changes which exist.

It has been thought sufficient, considering the treatment already given the Hupa language, to provide descriptions of the individual sounds occurring in Kato, illustrated as fully as possible with tracings; and to list the morphological elements, accompanying each with a few examples. This has been done with the expectation that the chief use made of the work would be comparative.

The material employed is chiefly that contained in Kato Texts,<sup>3</sup> to the pages and lines of which the numerals after the examples refer. The tracings<sup>4</sup> used were selected from about one thousand made in the spring and fall of 1908 by Bill Ray, from whom the texts also were obtained.

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<sup>1</sup> Univ. Calif. Publ. Am. Arch. Ethn., III, 1905. Bureau of American Ethnology Bulletin 40, 87-158, 1910.

<sup>2</sup> Univ. Calif. Publ. Am. Arch. Ethn., v, 56, 1909.

<sup>3</sup> Univ. Calif. Publ. Am. Arch. Ethn., v, 65-238, 1909.

<sup>4</sup> For a description of the apparatus and methods consult Amer. Anthrop., n.s. VII, 613-619; and v, 1-4, of this series.

## PHONOLOGY

### INDIVIDUAL SOUNDS

#### VOWELS

The vowels occurring in Kato are a, ɤ, e, ɛ, ē, i, ī, ō, û, and ū. Of these, ɤ, ɛ, are evident modifications of a and e; and i is not at all common.

a in quality is the wide-mid-back in English *father*. It has a very uniform length of .17 seconds.

ɤ is narrow-mid-back much like the vowel in English *what*. It occurs only in closed syllables, the same morphological element when rendered open having unmodified a, e.g., -kwaɤñ, -kwa naɤñ. The converse, however, is not true that a becomes ɤ in closed syllables. The stem of verbs often has ɤ in the present and a in the past: te'n nōL t'as, "cut them"; te'n ne sīL t'ats, "I cut it up." It is probable that the stem is more strongly stressed in the latter case. The duration is usually less than that of a, being about .11 seconds.

e is open in quality as in English *net*. It is of frequent occurrence and stable in its character. In a few cases only does it become narrowed to ɛ as in English *err*. Its duration is very uniform, being about .17 seconds. In less stressed syllables it is morphologically equivalent to Hupa e of the same quality.

ī always has the closed, continental sound as in English *pique*. When stressed it is the morphological equivalent of Hupa e.

i, the open sound in English *in*, is but rarely heard. It is extremely short in duration and is detected with some difficulty. It has been uniformly written in te'in, "he said." That it was as uniformly uttered is not certain.

ō with the close quality in English *note* is of frequent occurrence, and is fairly constant in its character, with a duration of .17 seconds. It has frequently been written in place of ū as a possessive prefix, when its duration is only about .1 second.

û has the sound of u in English *but*. It is always short in duration, about .067 seconds. It corresponds in its use in

morphological elements with *i* in Hupa; Kato *lût*, Hupa *lit*, "smoke."

*ũ*, close in quality as in *rule*, occurs as a possessive prefix where one might suspect its origin to be connected with *yō* and *yī*, the demonstrative. That it is not a vowel originally independent of *ō* seems probable. The closeness of quality may be due to neighboring semi-vowels. Even in this prefix it is often heard as *ō*. Its duration is usually short, about .1 second.

#### SEMI-VOWELS

*y* initially seems to begin as a surd and to pass very quickly into a sonant glide. It adds very little if any duration to syllables. When final it is written *i* and seems in some cases to have belonged to a separate syllable.

*w* seems to have developed in most instances from completely sonant *g* under the influence of back vowels. In a few morphological elements *w* does appear without such influences, but in certain Athapascan dialects *g* appears even in these. When the *w*-like glide after *k* is not followed by a vowel it is surd and written *w*.

#### CONTINUANTS

##### *Liquids*

The only sonant liquid is the lateral one, *l*. Initially in the word and after a surd spirant the first half of the *l* is surd and the latter half sonant. The first portion of the tracings (pl. 1, figs. 1, 2) shows the effect of a single flap of the tongue followed by a distinct rise of the tracing point, probably due to a greater opening of the passage. In form, the tracing resembles that for the surd spirant *L* (pl. 1, fig. 9) but is much smaller.

Between vowels (pl. 1, fig. 4; pl. 3, fig. 3; pl. 7, fig. 9) and final in the syllable (pl. 1, figs. 3, 5; pl. 9, figs. 1, 7) the sonancy is uninterrupted. When *l* is followed by a glottal stop the sonancy and apparently the duration of the sound itself are much shortened. The sound under this condition makes but little impression upon the English ear, and it is often heard as a surd. The tracings in plate 1, figures 7-9, do show a degree of

sonancy. These interrupted sonants seem to be the representatives of Hupa final L.<sup>5</sup>

The duration of l is about .18 seconds.

### *Nasals*

m.—The bilabial nasal seems to occur only where b has been assimilated to a dental or palatal nasal. Examples of such assimilation are plainly seen in cases where the initial sound of a verb-stem is b. Whenever it is preceded by n or ñ, b becomes m and usually the preceding nasal becomes m (pl. 6, figs. 6, 8). The postposition bī<sup>e</sup> when it follows a nasal becomes mī<sup>e</sup> (pl. 4, fig. 9). There is one word with an initial m which is unexplained, main, "weasel" (pl. 6, fig. 5). The duration of this sound is about .1 second.

In common with several Athapascan dialects, Kato has b, apparently preserved, where Hupa and other dialects have m. Perhaps the change toward m began with these words where assimilation took place and afterwards was carried through the language by analogy.

Syllabic n.—In many words in Kato n stands by itself in a syllable (pl. 4, figs. 2, 3), particularly when it is the first modal prefix of verbs and adjectives, and the second personal possessive prefix before a consonant. Under these circumstances Hupa has a vowel i preceding the n. Such a vowel was imagined to exist in Kato and was at first written. This n, unlike the consonant, has no sound accompanying the release. Its duration is about .12 second.

n.—The dental consonantal n when initial usually has the sonancy beginning about .05 seconds before the release of the tongue (pl. 1, fig. 8; pl. 2, fig. 3; pl. 3, figs. 5, 6). In some instances the sonancy seems to follow the release in about .01 second (pl. 4, fig. 7), in this respect agreeing with g and d when initial.

When n occurs within a word it is sonant throughout (pl. 4, figs. 6, 7). Its duration is about .1 second.

The final nasal seems usually to be palatal rather than dental,

<sup>5</sup> Present series, v, pl. 6, fig. 9.

but it becomes dental when another syllable beginning with a vowel is suffixed. In that case the *n* is often heard doubled as the final and initial sounds of the adjoining syllables. This is revealed in the tracings of plate 3, figure 1 of which shows a more complete closure of the mouth passage for the second *n*. Figure 6 of the same plate shows a decided increase in the amplitude of the vibrations of the nasal tracing, apparently due to the lower pitch of the final syllable, which happens to be favored by the tambour in use.

*ñ*.—The palatal nasal seems to be characterized by an incomplete closure of the mouth passage, or by its closure sometime after the lowering of the velum. This results in a nasalized sonant, palatal spirant, or a nasalized vowel, according to the degree of elevation of the back of the tongue, but since the earlier part of the vowel and the latter part of nasal are pure, the mixed character is not particularly noticeable to the ear. Final *g* also has a similar incompleteness of contact.

Often the palatal *ñ* is followed by a glottal stop (pl. 3, figs. 3-5). The sound is somewhat obscured in that case and at first the glottal stop was supposed to precede the nasal. None of the tracings reveal such an order. The glottis seems to open and the velum to fall at the same instant, causing a simultaneous raising of both tracing points. Kato seems to differ from Hupa as to the order of the glottal stop and nasal, as appears from plate 5 of volume 5 in this series.

### *Spirants*

The spirants of Kato are four in number, *s*, *c*, *l*, and *h*, all of them normally voiceless. In a few instances the initial portion is voiced at a low pitch, probably due to the gradual separation of the vocal chords. This low-pitched voicing of the initial portion impressed the hearer, in some cases, rather than the middle and last surd portion, and the sound was accordingly recorded as a sonant. In a number of cases intervocalic *h* appears with low pitch vibrations of great amplitude continuing throughout its duration. If it be true that the glottal spirant is caused by the friction of the air current as it passes the true

vocal chords, there may well be degrees of their retraction and relaxation.

s.—When initial, the tracing of s is usually a regular parabolic curve (pl. 5, fig. 1; pl. 6, fig. 7), showing a duration for the sound of about .22 second. In an intervocalic position (pl. 1, fig. 7) it may appear as a straight line or as an upward curve according to the elevation of the adjoining vowel tracing. Final in the syllable, which is a frequent position because of its occurrence as a suffix, it usually appears as a regular descending parabolic curve (pl. 3, figs. 5, 6; pl. 5, fig. 2; pl. 8, figs. 2, 8; pl. 10, figs. 1, 4, 7) of from .16 to .25 of a second in length. When final in the word, s is sometimes quite prolonged (.33 second) and shows a depression followed by a regular elevation. The form of the curve is due to variation in breath pressure controlled in the last analysis by the size of the opening between the tongue and the palate, and possibly, though not probably, to increase in the lung pressure.

c.—When initial before a consonant c (sh) seems to be syllabic (pl. 5, fig. 4; pl. 11, fig. 5). It is distinguished from s with difficulty by ear and its tracings closely resemble those of that sound. In other situations in the syllable and word the remarks above concerning s apply to c. In Hupa the corresponding sound is hw (-w).<sup>6</sup>

l.—The position for this sound seems identical with that for l. The tracings of it (pl. 2, figs. 1, 2, 4; pl. 11, fig. 3) usually show evidence of a single flap or movement of the tongue and sometimes (pl. 42, fig. 12) the slighter movements which may represent the spirant character. In a few cases (pl. 10, fig. 2; pl. 8, fig. 1) the sonancy of the preceding vowel continues into the l, but in all other respects it is surd. The sound is of the same character as that found in Hupa.<sup>7</sup> The average length is a little less than .2 of a second.

h, '.—Tracings of this sound in the initial, medial, and final (') positions are to be seen in plate 5, figures 7-9. In duration

<sup>6</sup> Work cited, v, 10.

<sup>7</sup> *Ibid.*, pl. 6, figs. 2, 4, 5, 6.

it is comparable to *s* and *c*. As has been remarked above, when medial it often has low-pitched vocal chord vibrations.

g.—A sonant spirant in the postpalatal position occurs between vowels and finally. It has probably resulted from a stop, the closure being incomplete.

#### STOPS

Six positions and three kinds of stops may be distinguished in Kato. The positions are bilabial, dental, prepalatal, postpalatal, velar, and glottal. The dental and palatal ones occur as sonants or intermediates, aspirated surds, and surds accompanied by glottal action.

#### *Labial*

b.—In the bilabial position only one kind is found, which from its resemblance to the corresponding members of other series may be called a sonant. The sonancy, however, does not occur until after the separation of the lips (pl. 5, fig. 3); the impulse for their separation and for the approximation of the vocal chords seeming to be synchronous. In regard to the tracings it should be observed that the lips, being tightly confined within the speaking funnel, often compress the air and elevate the recording point during the closure, obscuring the effect of the release, a result quite different from that produced by the other stops.

When *b* is preceded by a nasal it is assimilated to *m*. It does not occur in the final position of the syllable.

Its duration averages about .18 seconds.

#### *Dentals*

d.—The sonancy of *d* occurs about .04 seconds after the withdrawal of the tip of the tongue from the sockets of the teeth. Perhaps that interval is required for the adjustment of the chords after the nervous impulse is received (pl. 7, fig. 1). It will be observed that laryngeal adjustment of some sort is synchronous with the initial adjustment of the tongue marked by the first vertical lines in figures 1, 2, 3 of plate 7. Since only the latter third of the sound is sonant, and since its strength of enunciation does not differ from the surd so much as is usual in European

languages, it is heard by many as a surd. The sound is not found in the final position of the syllable, nor could it be expected since in that situation the sonant portion, the end glide, is wanting.

t.—In the sound represented by t, the final glide is surd breath resulting in an aspiration perhaps a little stronger than in accented English syllables (pl. 7, figs. 4-6). In several cases t by itself composes a syllable (pl. 6, fig. 3; pl. 7, fig. 2). In similar situations Hupa has d if the sound be initial, and t if it be final, with a weak vowel if necessary. Where t and d occur in the same word t appears as a higher tracing, indicating its somewhat stronger character. In duration the closure is about .1 second and the glide about as long.

t'.—The third member of the dental series is one of those peculiar American sounds often called fortes or exploded. The upper larynx line (pl. 7, figs. 7-9) shows a rather marked depression beginning as the tongue reaches the position of closure, culminating an instant after its release, and gradually returning during the glide, the latter portion of which is sonant. In figure 9 both t' and t occur, with a definite depression for t' but none for t, although it is nearly twice as high in the lower breath tracing. The initial sound also has the depression for t', of the same character as the sound under discussion.

It will be noticed that the recording point does not ascend so high as for d even, and immediately returns to the line marked by the preceding closure or even below it. It seems probable that the larynx tracing records a bodily movement of that organ which normally occurs when the glottis is closed by the depression of the epiglottis. The glottal stop (pl. 7, fig. 7) has a similar depression.

It seems that while the tongue is against the teeth closing the passage through the mouth the velum is raised, closing the nasal passages, and the glottis is closed by the epiglottis. The mouth and throat form at that time a closed chamber filled with compressed air which escapes as the tongue is withdrawn, causing the moderate elevation of the tracing point. Immediately after the release of the tongue, while the glottis is at least partly closed, some movement, perhaps the lowering again of the larynx, causes

a degree of suction. These sounds have a characteristic harsh effect on the ear. Examples of this sound in the final position may perhaps be seen in plate 11, figures 5 and 6. In the lower, breath, line of the latter the tongue release may be seen about 4 mm. after the last vertical line and a second one, probably the glottal release, 10 mm. after the first one. That the laryngeal movement is synchronous with, not posterior to, the dental stop, appears from the depression in the larynx line of figure 5 of this plate.

### *Palatals*

The palatal stops seem mostly to be in the postpalatal position, the prepalatal stops apparently having become affricatives. In many cases it is rather difficult to be sure whether *tc* is uttered or a prepalatal *k* with, perhaps, a glide. There are three sorts of the postpalatal stops of the same general character as those of the dental series, and in addition considerable variation in the sonant depending upon the position in the syllable.

*g*.—Initially the sonancy of *g* begins, as in *d*, about .02 seconds after the release of the tongue (pl. 8, fig. 1). Between vowels, and in some cases even between vowel and consonant, the sonancy is continuous, and the contact slight and of short duration (pl. 8, figs. 2, 3). If an *ō* or *ū* follows, it is often heard as *w*. In *Hupa*, in both the initial and medial positions, *w* occurs in all vowel settings. Finally in a word and before a surd spirant the contact is incomplete and a sonant continuant is heard (pl. 8, fig. 9) written *g*.<sup>7a</sup>

*k*.—The aspiration of the palatal surd is more noticeable than in the case of the corresponding dental. The duration of this aspiration, between the release of the tongue and the beginning of the vowel, averages .08 seconds (pl. 9, figs. 1-3). In numbers of cases this consonant is syllabic, representing the pronoun of the third person either as a possessive prefixed to a noun or the object prefixed to the verb. In this case and in some others the aspiration sounds as a surd *w*. A sound of this *kw* sort occurs finally and between a vowel and consonant (pl. 11, fig. 1). It is

<sup>7a</sup> It now seems certain that two *g*'s have been confused: one, not very frequent, is intermediate; the other is fully sonant, corresponding to *w* in *Hupa*.

quite probable that the w-tinge is imparted by the remains of an  $\bar{o}$  or  $\bar{u}$  vowel. It appears that the ordinary aspirated k when final usually loses its third or aspirated portion and resembles an unaspirated k. Hupa has a surd palatal continuant ( $x$ ) as the corresponding sound in all situations.

$k'$ .—The third member of the series is of the same character as  $t'$ . Its tracings show the same depression in the larynx line and a similar reduction in the height attained by the breath tracing with the following retraction. It has a harsh, cracking sound, still more noticeable than that of  $t'$ . A k of this sort followed by w is also found (pl. 9, fig. 9). When final it is rather hard to be sure which k should be written, but it almost certainly occurs in plate 11, figure 8, and perhaps in many other words. It corresponds to the only k of Hupa, in which language the palatal sonants seem to have become w, and the aspirated surd palatal stops the surd palatal spirant  $x$ .

#### *Velar*

q.—A few words have a sound clearly different from the palatal sounds discussed above. This difference seems to be one of position. The sound appears to be a velar, unaspirated and intermediate as to sonancy (pl. 8, figs. 7, 8).

#### *Glottal*

That the glottal stop ( $\epsilon$ ) occurs in the initial position in a word is not certain. It is initial in the verbal stems  $-\epsilon a$ ,  $-\epsilon ai$ , and  $-\epsilon an$ , but these stems of course are never the first syllable of words. When intervocalic (pl. 11, fig. 9) the stop is usually heard as a short pause between the two sounds, and is likely to be overlooked as insignificant or not even noticed until attention is called to it. When it is final (pl. 1, figs. 2, 6) it is much more prominent, for in that situation its release is plainly heard as an aspiration. Its duration in this situation is much longer. Its presence may also be detected by its effect upon the vowel or consonant which it follows (pl. 11, fig. 3). It has the result of reducing the duration of a preceding sonant (vowel, liquid, or nasal) to be about one-half of the usual length.

## AFFRICATIVES

The classification of the affricatives (stops plus spirants) is rather difficult in Kato. A sonant dj occurs in a number of syllables (pl. 10, figs. 1, 4), but there is usually some question as to the sonancy and also the position; dj, g, tc, and ky at first having been written for the same sound. An unmistakable surd tc also occurs with aspiration which takes place through the sh (c) position (pl. 10, figs. 2, 5).

A surd with glottal accompaniment (tc') is frequent (pl. 10, figs. 3, 4, 6, 9); a deictic prefix of this sort being present in a large number of verbs. It is often syllabic.

It is rather doubtful if ts occurs in any large number of cases. The diminutive suffix, of very frequent use in Kato, often sounds as much like ts as it does like tc. This is probably due to the fact that the second part of the sound is formed in a position or in a manner between s and sh as heard in English.

L.—In some cases a lateral surd consonant of an l character seems to be accompanied by the same sort of glottal or epiglottal action which affects the surd stops and the affricative tc'. This is especially plain in the tracing plate 2, figure 7. The effect, as in the other sounds of this character, is to reduce the energy of the breath, as is uniformly shown by the height of the tracings, and at the same time to impart a harshness which is strikingly noticeable.

TABLE OF SOUNDS

	Stops			Continuants					
	Intermediate or Sonant	Aspirated Surd	Glottally Affected Surd	Spirants	Sonant Affricative	Surd Affricative	Glottally Affected Affricative	Nasal	Liquid
Bilabial	b							m < b	
Apical-dental	d	t	t'	s		ts	ts', s'	n	
Median-prepalatal				c	dj	tc	tc'		
Lateral-prepalatal				L			L		l
Post-palatal	g	k	k'	g				ŋ	
Velar	q								
Glottal			ε	h, h'					

Semivowels: y, w.

*Vowels.*

		a		
		ą		
	e	ę	ō	
i		û		
ı				ũ

## COMPARISON OF KATO AND HUPA SOUNDS

Kato a and ą correspond to Hupa a and ą (written û).

Kato a', cloud; Hupa a, cloud.

Kato ya gŭL gal, he threw up; Hupa ya wil waL, he threw through the air.

Kato e; Hupa e.

Kato t'ec, coal; Hupa, teŭw, coal.

Kato tes del<sup>ε</sup>; Hupa teit tes deL, they went.

Kato ı; Hupa e.

Kato cı, I; Hupa, hwe, I.

Kato dō gıs iñ, one could not see; Hupa dō xō dū wes en, it could not be seen.

Kato ō; Hupa ō.

Kato Lō', grass; Hupa Lō, grass.

Kato nō te'ŭn tō<sup>ε</sup>, water reached; Hupa nō it tō, the water comes.

Kato û; Hupa i.

Kato lût, smoke; Hupa lit, smoke.

Kato nas ŭts, he ran about; Hupa nas its ei, he ran about.

Kato gŭl lût, it burns; Hupa wil lit, it burns.

Kato y; Hupa y.

Kato ya<sup>ε</sup>, louse; Hupa ya, louse.

Kato ye nat ya, he went in; Hupa ye na wit yai, he went in.

Kato l; Hupa l.

Kato laŭ, seaweed; Hupa la, seaweed.

Kato te'ŭs li<sup>ε</sup>, he caught in a noose; Hupa tsis loi, he tied in bundles.

Kato te'te lōs, he led; Hupa na te lōs, she dragged back.

Kato L; Hupa L.

Kato Lōn, squirrel; Hupa Lōn, mouse.

Kato Lel yits, he tied together; Hupa Le il loi, he tied together.

Kato te'e nan la, he jumped out; Hupa tee il lat, he jumped out.

**Kato L; Hupa L.**

Kato ū Lōl, its straps; Hupa LōL, strap.

Kato te'Loi ūñ gī, she is making a basket; Hupa ke it Lō, she used to make baskets.

**Kato syllabic n; Hupa n and i or other vowel.**

Kato n teel<sup>ε</sup>, your younger brother; Hupa nit tai, your paternal uncle.

Kato n das sī, it is heavy; Hupa nit das, it is heavy.

**Kato n; Hupa n.**

Kato ne<sup>ε</sup>, land; Hupa nin, ground.

Kato na nūn yai, she started across; Hupa na niñ yai, he crossed.

**Kato ñ; Hupa ñ or n.<sup>8</sup>**

Kato ō te'ūñ<sup>ε</sup>, toward it; Hupa xō teiñ, toward her.

Kato de t gūn<sup>ε</sup>añ, he put it in the fire; Hupa de dū wiñ an, he put in incense.

**Kato s; Hupa s.**

Kato ū sūts, its skin; Hupa sits, skin, bark.

Kato dō kw ne sūñ, I was insensible; Hupa ai ne sen, I thought.

**Kato c; Hupa hw.**

Kato ca, moon; Hupa hwa, moon.

Kato nec in tē le, let me look; Hupa nūw iñ, let me look.

Kato nL cūñ<sup>ε</sup>, black; Hupa Lū hwin, black.

**Kato b; Hupa m.**

Kato būñ k'ūt, lake; Hupa mūñk, lake.

Kato bes ya hūt, he climbed up when; Hupa me is La dei, he ran up.

Kato na'be, swim (plu. imp.); Hupa nauw me, let me swim.

**Kato d; Hupa d.<sup>9</sup>**

Kato ū da<sup>ε</sup>, his mouth; Hupa xōt da, his mouth.

Kato da nō la, she put it up; Hupa da na wil lai, she put it.

Kato bē dūL, let us climb; Hupa wei dīL, we will go.

**Kato dj; Hupa dj.**

Kato dje<sup>ε</sup>, pitch; Hupa dje, pitch.

Kato dje<sup>ε</sup> gūL teel, he split open; Hupa dje wiL kil, he tore open.

**Kato t, Hupa t.**

Kato tō, water; Hupa tō, ocean.

Kato te'te' gūn tal<sup>ε</sup>, he stepped in water; Hupa te nō dū win taL, he stepped in water.

<sup>8</sup> It is not certain that this is a phonetic change. The occurrence of n and ñ in Hupa stems regularly marking temporal-modal changes may have been extended by analogy.

<sup>9</sup> When a prefix such as follows de-, in fire, stands alone, it becomes t in Kato, e.g., de t gūñ<sup>ε</sup>añ (Hupa de dū win an), he put on the fire; but otherwise it is d also in Kato, as in de dūñ<sup>ε</sup>aç, put on the fire.

**Kato t' ; Hupa t.**<sup>10</sup>

Kato t'e<sup>ε</sup>, blanket; Hupa te, blanket.  
 Kato ta gūt t'ats, he butchered; Hupa kit te tats, he cut them.

**Kato tc; Hupa tc.**

Kato ɫ teūc, dust; Hupa ɫit teūw, sand.  
 Kato wa nūn tei būñ, it will blow through; Hupa da kyū wes tee, the wind blew.

**Kato tc; Hupa tew.**

Kato c teō, my grandmother; Hupa mitc tewō, its grandmother.  
 Kato ūɫ tei, make it; Hupa ɫtew, make it.  
 Kato te'ūn gūn tee ce, he cried; Hupa teū win tewū, he cried.

**Kato tc; Hupa k (prepalatal).**

Kato teñ, tree; Hupa kin, tree.  
 Kato n teel<sup>ε</sup>, your brother; Hupa mik kil, her brother.  
 Kato gūɫ teūt, he caught them; tee xōɫ kit, he caught him.

**Kato te' ; Hupa tc, ky.**<sup>11</sup>

Kato te' nes tiñ, he lay down; Hupa tein nes ten, he lay down.  
 Kato te' gūn yan<sup>ε</sup>, he ate of it; kyū win yan, he ate it .

**Kato g; Hupa w.**

Kato gūɫ gel<sup>ε</sup>, it was evening; Hupa wil weɫ, dark, night.  
 Kato sel gīn, he killed; Hupa tee seɫ wen, he killed.

**Kato k; Hupa x.**

Kato kai hit', winter time; Hupa xai, winter.  
 Kato ka ya ei<sup>ε</sup>, they dug; Hupa xa ke hwe, she commenced to dig.  
 Kato wa<sup>ε</sup> ūñ kan, she gave him; Hupa xō wa teiñ xan, she gave her.

**Kato kw; Hupa x.**

Kato kwōñ<sup>ε</sup>, fire; Hupa xoñ, fire.  
 Kato kw na<sup>ε</sup>, his eyes; Hupa xon na, his eyes.  
 Kato kwa'la, you did; Hupa xa ūɫ le, do that.

**Kato k' ; Hupa k. (The same sound.)**

Kato k'at de<sup>ε</sup>, soon; Hupa kūt de, soon.  
 Kato k'e te'ūs t'ats, he cut; Hupa kit te tats, he cut them.  
 Kato nūn ūn dūk k'e<sup>ε</sup>, get up (imp. sing.); Hupa in na is dūk ka, she got up.

**Kato k'w; Hupa k.**

Kato k'wūt', on; Hupa kūt, on.

**Kato q; Hupa q.**

Kato qō, worm; Hupa qō, worm.  
 Kato ūñ qōt, spear it; Hupa ya a qōt, they always stuck them.

<sup>10</sup> Hupa t is but an earlier orthography for t' used in Kato.

<sup>11</sup> In Hupa tc with glottal accompaniment was not differentiated from the few occurrences of simple tc.

## ASSIMILATION OF SOUNDS

The instances of assimilation noticed are the following:

b following n or ñ becomes m:

- kwōñ<sup>ε</sup> mī<sup>ε</sup> (for kwōñ<sup>ε</sup> bī<sup>ε</sup>), fire in. 119-13.<sup>12</sup>  
 kwōñ<sup>ε</sup> múñ a (for kwōñ<sup>ε</sup> búñ a), fire before. 119-16.  
 tām mīc (for tām bīc), swim. 118-16.

t final in verbal stems followed by b or k is assimilated:

- ûl teʔk kwan (for ûl teʔt kwan), you shouted. 164-17.  
 na sōL Lûk kwañ (for na sōL Lût kwañ), you have burned? 174-4.  
 ũ na nûn Lûb bûñ (for ũ na nûn Lût bûñ), around you must burn.  
 104-10.  
 nōl kûb bûñ (for nōl kût bûñ), will float ashore. 85-10.

t' of k'wût', on, becomes n before words beginning with n:

- k'wûn na gai, on it he walked. 78-1.  
 k'wûn nōl tiñ, she put it on. 181-3.

g preceded by ñ becomes ñ or disappears:

- na hûñ ʔt (for na hûñ ʔat), you untie. 123-7.  
 te'eñ a nī (for te'eñ ga nī), killed. 157-5.  
 te'n nûñ iñ (for te'n nûñ giñ), he brought. 135-11.

## MODIFICATION OF SYLLABLES

It is well known that syllables of greater importance of meaning are rendered more emphatic by methods which are characteristic of the languages in which they occur. English, in common with other languages of Germanic origin, has a strong stress accent. Ancient Greek and certain modern Slavic languages have a variation in pitch. Variations of stress are undoubtedly due to changes in the pressure exerted by the lungs upon the air column and are brought about by an unusual incitation of muscles controlling breathing. The increase of pitch, in like manner, is due to an extra forcible incitation and contraction of certain muscles of the larynx.

It seems that in Kato and other Athapascan dialects there are similar grades in the force exerted by the muscles in closing and adjusting the mouth passage. It was formerly held that these were secondary effects of stress accent, although such accent is

<sup>12</sup> The references are to the pages and lines of the author's *Kato Texts*, Univ. Calif. Publ. Am. Arch. Ethn., v., 65-238, 1909.

nearly absent at the present time. It seems more reasonable to look upon these differences of enunciation as coördinate with, if not independent of, stress and pitch.

Such differences in muscular tension of the walls of the mouth, and of the tongue should alter the resonance of the buccal cavity, and the quality of the vowels, render stops and affricatives simple spirants, and cause final consonants to disappear.

The following diphthongs lose their final component :

- <sup>ε</sup>ai becomes -<sup>ε</sup>a, stem, to have, position.
- yai becomes -ya, stem, to go.

The quality of the vowels changes in the following :

- ta- becomes taṭ-, prefix, relating to water.
- ka- becomes kaḷ-, prefix, up.
- ye- becomes yī-, prefix, in.
- del<sup>ε</sup>- becomes -dūL, stem, go.
- sil<sup>ε</sup> becomes -sūL, stem, to strike.
- kō- becomes kwūt-, prefix, down.

The sonant l becomes a surd spirant L :

- dūl becomes -dūL, stem, of swimming fish.
- kal becomes -kaL, stem, to break.
- qal becomes -qaL, stem, to walk.

Affricatives become spirants :

- yats becomes -yas, stem, to snow.
- yītc becomes -yīc, stem, to rest.
- gets becomes -gūc, stem, to look.
- k'ats becomes -k'as, stem, of long object.

Final stops disappear :

- lat becomes -La, stem, to jump.
- yōt becomes -yō, stem, to chase.
- yeg becomes -ye', stem, to drive deer.
- lag becomes -la', stem, to do.
- k'ag becomes -k'a', stem, to be fat.

Not only is the duration of the entire syllable lessened in these instances in which a diphthong becomes a simple vowel, an affricative a simple spirant, and a final stop disappears, but vowels in the weaker forms are shorter.

Stress and pitch seem to vary but slightly except that at the conclusion of a sentence or any part of it spoken separately the voice falls much as in English.

## MORPHOLOGY

## NOUNS

The nouns of Kato are of the same sort and fall into the same classes as Hupa nouns already fully discussed.<sup>13</sup> In the first class, monosyllables without evidence of formative elements, there have been found sixty-eight. Of such Hupa nouns forty-eight have been listed.<sup>14</sup> Of these Kato nouns sixteen are believed not to exist in Hupa either as simple words or elements of words, while seven of the Hupa monosyllables are not known in Kato. The Hupa have descriptive names in the place of these Kato nouns, the apparently original ones. In several instances the change appears to be recent. The ordinary Hupa word for water is *ta nan*, what one drinks, but *tō* is still employed in compounds. Nouns similar to these Kato words are generally in use throughout the territory intervening between Hupa and Kato territory and are to be considered Athapascan nouns that have disappeared in Hupa.

## SIMPLE, MONOSYLLABIC

The following nouns seem to have no formative elements.

- a', cloud. 74-6. (Pl. 12, fig. 1.)
- ał, firewood. 137-16.
- ya', sky. 77-13. (Pl. 12, fig. 2.)
- ya<sup>ε</sup>, head louse. 152-5. (Pl. 12, fig. 3.)
- yas, snow. 74-3. (Pl. 12, fig. 4.)
- ye, house. 97-6. (Pl. 15, figs. 13, 14.)
- yō', scoter. 122-6. (Pl. 5, fig. 9.)
- yō<sup>ε</sup>, head. 145-7.
- wōs, leg. 79-10. (Pl. 5, fig. 3; pl. 12, fig. 5.)
- łat, seaweed. 84-12.
- lō (lōō), frost. 74-3.
- lets, clay. 80-1.
- lōn, rodent, squirrel. 96-9. (Pl. 2, fig. 1; pl. 20, fig. 2.)
- lōk', steel-head salmon. 84-5. (Pl. 12, fig. 6.)
- łút, smoke. 141-2. (Pl. 12, fig. 7.)
- Le<sup>ε</sup>, night. 81-4.
- Lō', herb, grass. 71-3. (Pl. 2, fig. 8; pl. 12, fig. 8.)
- main, weasel. 74-2. (Pl. 6, fig. 5.)

<sup>13</sup> Present series, III, 13-29, 1905; Bur. Am. Ethn. Bull. 40, 106-110, 1910.

<sup>14</sup> *Ibid.*, III, 13.

- ne<sup>ε</sup>, land, earth. 71-1; 74-9. (Pl. 20, fig. 9.)  
 sai, sand. 85-9.  
 se, stone. 71-3. (Pl. 5, fig. 1.)  
 sis, otter. 73-4.  
 slûs, ground squirrel. 73-7. (Pl. 12, fig. 10.)  
 sk'e<sup>ε</sup>, mush. 110-8.  
 ca, sun. 74-9. (Pl. 12, fig. 11.)  
 cek', spittle. 154-14. (Pl. 12, fig. 12.)  
 cic, ochre. 80-4. (Pl. 15, fig. 12.)  
 cle<sup>ε</sup>, orioles. 72-13.  
 bañ, doe, female. 165-9, 182-2.  
 beL, rope. 101-7. (Pl. 12, fig. 13.)  
 bûs, slide. 86-11. (Pl. 12, fig. 14.)  
 bût', stomach. 110-1.  
 dañ, pile. 133-10; 181-6.  
 deL, whooping crane (†). 73-14.  
 djañ, mud. 155-6.  
 dje', pitch. 137-13.  
 djiñ, day. 82-8.  
 tō, water. 71-1. (Pl. 7, fig. 4; pl. 12, fig. 15.)  
 tûts, cane. 174-7.  
 ts'al, basket cradle. 113-12.  
 ts'i<sup>ε</sup>, brush. 76-7.  
 ts'ñfi, bone. 110-1.  
 teûn, tree. 71-3.  
 te'añ, food. 85-5.  
 te'ek, woman. 83-15.  
 te'i, boat. 127-10.  
 te'ô', black-bird. 72-15.  
 te'ñfi, noise. 107-8.  
 t'a<sup>ε</sup>, feather. 105-14. (Pl. 7, fig. 7.)  
 t'e<sup>ε</sup>, blanket. 110-5.  
 t'ec (t'ee), coal. 143-7; 147-9.  
 ges, black salmon. 84-3. (Pl. 12, fig. 16.)  
 gâc, yew.  
 ka', goose. 73-14.  
 ka<sup>ε</sup>, a feather headdress. 176-17.  
 kai, winter.  
 kôs, cough. (Pl. 12, fig. 17.)  
 kwe<sup>ε</sup>, track. 108-13.  
 kwōñ<sup>ε</sup>, fire. 81-3. (Pl. 4, fig. 5.)  
 kwôt, stream, creek. 90-15.  
 kwôc, whitethorn (a shrub). 166-3.  
 k'a<sup>ε</sup>, arrow. 110-10.  
 k'ai<sup>ε</sup>, hazelnuts. 94-5.  
 k'ññ<sup>ε</sup>, junberry. 133-3. (Pl. 4, fig. 8; pl. 11, fig. 2.)  
 k'ññ<sup>ε</sup>, hazel. 133-10. (Pl. 12, fig. 20.)  
 k'ûc, alder. (Pl. 12, fig. 18.)  
 k'wa', fat. 83-15. (Pl. 12, fig. 19.)  
 qô, worms. (Pl. 8, fig. 7.)

## WITH POSSESSIVE PREFIXES

Nouns capable of intimate possession, such as parts of the body, and terms of relationship, seldom or never occur without a possessive prefix. These prefixes are:

a-, reflexive.

a t'a, her own blanket fold. 181-9. (Pl. 7, fig. 8; pl. 13, fig. 1.)

c- or s-, first person singular.

c dji<sup>ε</sup>, my heart. (Pl. 13, fig. 14.)

n-, second person singular.

nat, your sister. 132-4. (Pl. 13, fig. 10.)

nō<sup>ε</sup>-, first person plural.

nō<sup>ε</sup> sī<sup>ε</sup>, our heads. 129-10. (Pl. 5, fig. 8.)

nō<sup>ε</sup>-, second person plural.

nō<sup>ε</sup> sī<sup>ε</sup>, your heads. 172-15.

nō<sup>ε</sup> nān, your mother. 135-2.

n h-, second person plural.

n hūnte, your (pl.) noses. 97-9.

b- or bī-, third person of singular or plural definitely mentioned or understood persons or things (pl. 14, fig. 3).

būnte, his nose. 80-7.

bī ne<sup>ε</sup>, its (feather's) back. 127-5.

ū- or ō-, third person singular or plural of persons, animals, or objects (pl. 13, figs. 2-9).

ū na<sup>ε</sup>, her eye. 152-10. (Pl. 13, fig. 5.)

ū tea<sup>ε</sup>, her apron. 165-8. (Pl. 13, fig. 3.)

kw-, third person singular or plural of persons or things referred to indefinitely.

kw da<sup>ε</sup>, his mouth. 123-2. (Pl. 14, fig. 7.)

kûc-, third person plural.

kûc na tag ha<sup>ε</sup>, without their knowledge. 155-8.

tc'-, third person of detached, unassociated members.

tc' sī<sup>ε</sup>, head. 128-5.

*Parts of the Body*<sup>15</sup>

-ūnte, nose. 80-7; 98-2.

-we cī, eggs. 111-9.

<sup>15</sup> III, 14-16.

- wō<sup>ε</sup>, tooth. 181-8. (Pl. 4, fig. 2; pl. 14, fig. 4.)
- wōs, leg. 151-18. (Pl. 5, fig. 3.)
- la<sup>ε</sup>, hand. 154-1; 164-1.
- lai<sup>ε</sup>, penis. 80-8.
- La, butt. 93-10.
- na<sup>ε</sup>, eye. 180-7. (Pl. 13, fig. 5.)
- ne<sup>ε</sup>, back, back-bone. 133-3.
- ne<sup>ε</sup>, lower leg. (Pl. 13, fig. 12.)
- sa ye, its shell. 131-9.
- sa ke<sup>ε</sup>, spleen. 133-4.
- sī<sup>ε</sup>, head. 76-1. (Pl. 5, fig. 8.)
- sī<sup>ε</sup> da<sup>ε</sup>, crown of head. 79-4. (Pl. 14, fig. 12.)
- sō<sup>ε</sup>, tongue. 110-3. (Pl. 13, fig. 4.)
- sō se<sup>ε</sup>, sting. 156-1.
- sûñ<sup>ε</sup>, meat. 134-14.
- sûn ta<sup>ε</sup>, forehead. 132-15.
- sûts, skin. 110-4. (Pl. 13, fig. 7.)
- sle<sup>ε</sup>, anus. 143-13.
- bût', stomach. 148-6. (Pl. 11, fig. 5.)
- da<sup>ε</sup>, mouth. 122-13. (Pl. 14, fig. 7.)
- da<sup>ε</sup>, voices. 106-14.
- da<sup>ε</sup> ga<sup>ε</sup>, beard.
- de<sup>ε</sup>, horn. 74-10. (Pl. 13, fig. 9.)
- des ke<sup>ε</sup>, lungs. 180-12.
- dī ce<sup>ε</sup>, shoulder. 75-1.
- dji<sup>ε</sup>, heart. 125-17. (Pl. 13, fig. 14.)
- dji k'e<sup>ε</sup>, intestines. 113-3.
- te le<sup>ε</sup>, liver. 180-12.
- t'a, tail. 86-4.
- t'ai, neck. 153-11.
- ts'e k'e, navel. 132-10.
- ts'in ne, leg. 107-12.
- ts'ō<sup>ε</sup>, milk. (Pl. 13, fig. 6.)
- tc'a nī, faeces. 142-7.
- tcī<sup>ε</sup>, tail. 163-1. (Pl. 14, fig. 5.)
- tcī<sup>ε</sup>, mind. 101-14.
- tcī<sup>ε</sup>, heart. 101-5. (Pl. 5, fig. 4.)
- dji cīc te<sup>ε</sup>, lungs. 80-2.
- tcō djiL, kidney. 80-2. (Pl. 14, fig. 11.)
- tcōk, testicles. 80-9.
- tc'ge<sup>ε</sup>, ear. 110-2.
- ga<sup>ε</sup>, hair. 143-8.
- ge<sup>ε</sup>, marrow. 110-2.
- kī<sup>ε</sup>, butt.
- kwa ne, shoulder, arm. 102-15; 160-7.
- kwañ ke, ribs. 133-9.
- kwe<sup>ε</sup>, foot. 96-14. (Pl. 14, fig. 8.)
- qōt', knee. (Pl. 13, fig. 13.)

*Clothing*

- Lōl, strap. 97-7.
- t'a, pocket, blanket fold. 181-9. (Pl. 13, fig. 1.)
- t'a nī, skirt. 165-6. (Pl. 13, fig. 2.)
- tea<sup>ε</sup>, apron. 165-8. (Pl. 13, fig. 3.)

*Relatives*

- at', sister. 132-4. (Pl. 13, fig. 10.)
- ite, daughter. 128-7.
- ûnt, -ûn dī, cousin. 139-4; 145-2; 146-3. (Pl. 14, figs. 1, 2.)
- yacts, young. 80-14; 182-4.
- ya teete, daughter. 176-10.
- ye<sup>ε</sup> dūñ, husband. 132-14.
- lō, dog. 101-6.
- nān, mother. 105-7.
- ta<sup>ε</sup>, father. 105-7.
- t'ē cī<sup>ε</sup>, sister. 144-4.
- teel<sup>ε</sup>, younger brother. 141-12.
- teai, grandchild. 97-16; 148-11. (Pl. 14, fig. 13.)
- teō, grandmother. 97-16. (Pl. 13, fig. 15.)
- teūñ ka nai, uncle. 172-3.
- te'gī, grandfather. 153-10. (Pl. 13, fig. 11.)
- ge dūñ, brother-in-law. 153-18.
- gūn dan, son-in-law. 128-7.
- kī, boy. 102-6. (Pl. 14, fig. 9.)
- kik, children. 105-2.

## NOUNS WITH SUFFIXES

Nouns as such never seem to be used with prefixes other than the possessive ones. They take, however, a large number and variety of suffixes. With the exception of those first listed, these suffixes have very definite meanings and most of them are traceable to other parts of speech. Those indicating size, shape, and color differ from adjectives only in the absence of the usual prefixes before the stem. The postpositions used with nouns are not different from those forming phrases with pronouns, but in a few cases the noun does not seem to exist without the suffix. These postpositions might easily become inflectional cases should they suffer obscuring phonetic changes or their use except as nominal suffixes cease.

*Plural and Class Suffixes*

-kī, -k, forming the plural of terms of relationship and classes of people.

te'yān, woman. te'yān kī, women. 110-15.

skī, boy. 116-16. skīk, boys, children. 132-8. (Pl. 14, figs. 9, 10.)

-teūñ, a suffix indicating one of a class, "that kind of a person."

te'yān teūñ, old woman. 152-3.

s teō teiñ, my grandmother. 147-5.

-ta, the plural of the last.

kāç kits, old man. 108-2. kāç kits ta, old men. 109-15.

-k'ûct, of uncertain meaning.

te'yān k'ûct, old women. 105-1.

-kī ya hūñ, a class suffix used particularly with place names. It is the usual termination of the people of a village as distinguished from the locality.

tō kī ya hūñ, water people. 175-1.

-gūñ, of uncertain meaning.

L tsō gūñ, foxes, "the ones that are blue" (?). 73-3. (Pl. 8, fig. 3.)

*Locative Suffixes*<sup>15a</sup>

-dūñ, at.

ye dūñ, house place. 113-15.

yī teō dūñ, dance house place. 145-6.

se ta' dūñ, rock creek. 107-16.

tō n cōn dūñ, water good place. 173-7.

-ta', among.

ye bī<sup>ε</sup> ta', houses among. 171-17.

ne<sup>ε</sup> k'wūt ta', countries. 157-6.

n cōn ta', good places. 173-6.

ca'na<sup>ε</sup> ta', creeks, creeks in. 82-14; 93-11.

teūn ta', trees among. 171-9. (Pl. 15, fig. 6.)

ō ye ta', under places. 180-1.

-te'ūñ<sup>ε</sup>, toward.

tō te'ūñ<sup>ε</sup>, water toward. 176-6.

c nān te'ūñ<sup>ε</sup>, my mother toward. 120-11.

-bī<sup>ε</sup>, in.

ye bī<sup>ε</sup>, house in. 97-11.

ō da<sup>ε</sup> bī<sup>ε</sup>, its mouth in. 128-15; 182-5.

<sup>15a</sup> See also the postpositions used with pronouns, p. 39.

wa te'a mī<sup>ε</sup>, hole in, 156-12. (Pl. 4, fig. 9.)  
 sak tō<sup>ε</sup> bī<sup>ε</sup>, spring in. 115-10.  
 cīe bī<sup>ε</sup>, red mountain, 102-15. (Pl. 15, fig. 12.)  
 ts'əl bī<sup>ε</sup>, basket in. 115-10.  
 kwō<sup>ε</sup> mī<sup>ε</sup>, fire in. 110-4.

-bī<sup>ε</sup>k', inside.

ya' bī<sup>ε</sup>k', sky in. 101-15. (Pl. 15, fig. 15.)  
 ye bī<sup>ε</sup>k', house inside. 99-5. (Pl. 15, fig. 14.)  
 tō bī<sup>ε</sup>k', water inside. 155-4.  
 ō la<sup>ε</sup> bī<sup>ε</sup>k', its hands in. 114-8.

-bī<sup>ε</sup> ūñ<sup>ε</sup>, toward, in.

ya' bī<sup>ε</sup> ūñ<sup>ε</sup>, sky in. 81-2; 99-10.  
 ye' bī<sup>ε</sup> ūñ<sup>ε</sup>, house in. 110-15. (Pl. 15, fig. 13.)

-k'wūt', on.

ō teī<sup>ε</sup> k'wūt', its tail on. 162-14. (Pl. 9, fig. 9; pl. 20, fig. 1.)  
 ū sī<sup>ε</sup> da k'wūt', crown of its head on. 76-5.  
 ū de<sup>ε</sup> k'wūt', its horn on. 76-3.  
 ne<sup>ε</sup> k'wūt', land on. 92-2.  
 tō k'wūt', water on. 82-1.

-ū ye, -wī-ye, under.

ca ū ye hūñ, sun under. 75-4.  
 teūn wī ye, tree under. 97-3.

-tūk gūt, between.

ō na<sup>ε</sup> tūk gūt, its eyes between. 76-2.  
 ye tūk gūt, house middle. 142-13. (Pl. 16, fig. 1.)

-L<sup>ε</sup>ūt, middle (time or place).

ne<sup>ε</sup> L<sup>ε</sup>ūt, earth middle. 75-3; 104-11. (Pl. 16, fig. 4.)  
 cin L<sup>ε</sup>ūt, summer middle. 121-14.  
 ta L<sup>ε</sup>ūt, ocean middle. 126-8. (Pl. 16, fig. 7.)  
 kai L<sup>ε</sup>ūt, winter middle. 113-14.

-būñ a, before, alongside of.

kwōñ<sup>ε</sup> mūñ a, fire before. 119-16.

-ne<sup>ε</sup> ūñ<sup>ε</sup>, other side of, "its back towards."

tō ne<sup>ε</sup> ūñ<sup>ε</sup>, water other side. 126-6. (Pl. 11, fig. 9.)

-ū nō<sup>ε</sup>, behind.

ne<sup>ε</sup> ū nō<sup>ε</sup>, hill behind. 164-16. (Pl. 4, fig. 7.)  
 teū nō<sup>ε</sup>, tree behind. 103-5.

-lai<sup>ε</sup>, on top, "summit, point."

ne<sup>ε</sup> lai<sup>ε</sup>, earth top. 161-14.  
 ū laik', their tops. 132-15.  
 kw teī<sup>ε</sup> lai<sup>ε</sup>k', his tail end. 177-12.

*Suffix with Instrumental Meaning*

-bûL, with, by means of.

na gī bûL, quiver with. 176-16.

ts'al bûL, basket with. 148-2.

tea<sup>e</sup> bûL, dress with. 166-6.

k'a<sup>e</sup> bûL, arrows with. 166-7.

k'ûm mûL, withes with. 167-1.

*Suffixes of Temporal-Modal Force*

-bûñ, for, will be (usually expresses purpose but sometimes predictions of the future only).

a' bûñ, cloud will be. 79-2.

a' bûñ, for clouds. 78-8.

ô te li<sup>e</sup> bûñ, its liver for. 109-6.

sak tō<sup>e</sup> bûñ, "spring will be." 88-4.

-wûñ, for.

te'a wûñ, food for. 123-3.

tō wûñ, water for. 118-4, 123-3.

-hit', -hût, at time of.

ciñ hit', summer time. 121-5.

ciñ hût, summer time. 155-1. (Pl. 16, fig. 6.)

djiñ hût, day time. 105-7.

kai hit', winter-time. 121-11.

-ût, at (perhaps a form of the last).

Le<sup>e</sup> ût, night in. 136-1.

-ye, it is (simple affirmation).

ne<sup>e</sup> ye, country is. 120-14.

c nañ ye, my mother is. 120-11.

dō ū sūñ<sup>e</sup> yī, it is not meat. 134-14.

dō L gûc ye, it is not rattlesnake. 177-4.

-ûñ gī, it is (affirmation with element of surprise).

ca ûñ gī, sun it is. 100-7.

-tē le, will be.

k'ai t bûL tē le, burden baskets will be. 140-12.

*Suffixes of Size, Shape, and Color*

-tcō, large, an augmentative suffix.

Lō'tcō, bunch grass. 94-7.

dûc tcō, grouse. 72-5.

gac tcō, redwood (gac, yew). 86-8. (Pl. 14, fig. 14.)

ges tcō, elk (ges, deer in other dialects). 71-5. (Pl. 14, fig. 15.)

-te, -ts, small, a diminutive suffix also used to form terms of endearment. Cf. ū te'ûnts, close by, from -te'ûn<sup>ε</sup>, by or near.

dûcte, quail. 72-5. (Pl. 14, fig. 16.)

yîcte, wolf. 71-6. (Pl. 15, fig. 1.)

c tcaite, my grandchild. 97-16. (Pl. 14, fig. 13.)

c lôts, my dog. 89-14.

-yac, young, small.

s kits yac, baby small. 113-12.

With both diminutives.

nō nī yacts, grizzly small. 92-5.

ca'na<sup>ε</sup> yacts, creek little. 115-13.

Cf. c yacts, my little one. 182-4.

Cf. se ū yacts, stones small. 76-10. (With possessive prefix ū.)

-sōs, slender.

de<sup>ε</sup> sōcte, spike back. 108-8.

-tel, -teL, wide, flat.

lō<sup>ε</sup> tel, flat fish (†)

lō' teL, bear grass. 176-17.

ts'ûn teL, "bone-wide" turtles. 90-14. (Pl. 15, fig. 5.)

Cf. se n teLts, stone flat small. 133-3. (With adjective prefix.)

#### NOUNS COMPOUNDED WITH NOUNS<sup>16</sup>

##### *The First Noun qualifies the Second*

in tce<sup>ε</sup> bañ, deer female. 144-2.

dûs t'e kō ne, madrone berries. 134-17.

tō a' būñ, "water cloud," for dew. 79-4.

tō sī<sup>ε</sup> dûn, water-head-place. 87-6.

tō bût teō, water panther. 177-13. (Pl. 20, fig. 8.)

tcûn wō<sup>ε</sup>, "tree teeth," hook. 158-7.

tcûn sī<sup>ε</sup> ts, "tree head small," pine cones. 115-13, 117-12.

tcûn sûts, "tree skin," bark. 137-14.

ges na<sup>ε</sup>, salmon eye. 121-12.

k'a<sup>ε</sup> s'ûL tiñ<sup>ε</sup>, arrow-bow. 144-9.

##### *With Possessive Prefix for Second Component*

ne<sup>ε</sup> ū tci<sup>ε</sup> dûñ, earth tail place. 86-9.

te' kak' bī ne<sup>ε</sup>, net's back-bone. 119-18.

##### *With the Second Component modifying the First.*

lōn te' ge nes, "rodent-ears-long," a mouse. 73-10. (Pl. 2, fig. 1.)

tō nai wō<sup>ε</sup> nes, "fish-teeth-long." 86-1.

<sup>16</sup> III, 19.

## NOUNS COMPOUNDED WITH ADJECTIVES

**-n teag, large.**

ne<sup>ε</sup> n teag, country large. 97-16.

tō nai n teag, fish big. 85-11.

wō<sup>ε</sup> n tea', teeth large. 86-5. (Pl. 4, fig. 2.)

**-n cōñ, good.**

tō n cō nit, water is good because. 87-10.

**-n ce<sup>ε</sup>, bad.**

ne n ce<sup>ε</sup>, land bad (mud springs). 106-2.

**-nes, long.**

la<sup>ε</sup> nes, "hand long," raccoon. 112-5. (Pl. 1, fig. 1.)

Lō' nes, grass long. 80-3.

tea nes, wasp. 150-14.

ts'e k'e neets, "navel long," an eel. 91-2. (Pl. 20, fig. 7.)

**-n telts, broad.**

kwe<sup>ε</sup> n telts, "foot broad," a heron. (Pl. 20, fig. 11.)

da<sup>ε</sup> ya<sup>ε</sup> n tel i tō, "mouths are flat large," geese. 158-14.

**-n Lûts, stout, rough.**

tō n Lûts, water rough. 86-6.

**-L gai, white.**

ya<sup>ε</sup> L gai, louse white. (Pl. 15, fig. 8.)

Lōn L gai, woodrats. 73-9. (Pl. 20, fig. 2.)

naL gi L gai, white duck. 148-3.

seL gai, white stones. 143-4.

**-L teik, red.**

yō<sup>ε</sup> L teik, beads red. 176-14.

tō nai L teik, fish red. 124-15.

**-L tsō, blue.**

Lō' L tsō, grass blue. 76-6. (Pl. 2, fig. 8.)

tō nai L tsō, fish blue. 124-15. (Pl. 20, fig. 12.)

**-L cūñ<sup>ε</sup>, black.**

tō L cūñ<sup>ε</sup> kwōt, black water creek. 98-14.

ges L cūñ<sup>ε</sup>, salmon black. 86-2. (Pl. 15, fig. 10.)

**-L cīk, shining.**

na<sup>ε</sup> L cīk, eye shining. 181-9. (Pl. 15, fig. 11.)

**-dûl bai, grey.**

ne<sup>ε</sup> dûl bai, (a pine). 86-13. Pl. 20. fig. 5.)

Lete ba, grey clay. 76-2.

**-dûl k'ûs, brown (?).**

Lō' dûl k'ûs, grass dry. 121-13.

## -L tûk (?)

tân L tûk, leaves die(?). 121-13.

## -t biñ, sharp, pointed.

si<sup>é</sup> t biñ, "heads sharp," a bulb. 149-4.

## -te'its, rough.

se te'its, sandstones. 77-9. (Pl. 16, fig. 3.)

## -Lañ, many.

wō<sup>é</sup> Lañ, "teeth many." 149-1.

The two following probably have descriptive adjectives.

ta dûl gai teō, hornet. 151-2.

ta dûl k'ûts, milksnake. 178-9.

## NOUNS COMPOUNDED WITH VERBS

yicte s'ûL tiñ kwât, "wolf lies dead stream," Ten-mile creek. 173-14.

yō<sup>é</sup> gût Lōñ, "beads woven." 176-13.

yō<sup>é</sup> teil 'iñ, "bead"(?), abalones. 84-12. (Pl. 20, fig. 6.)

Lō<sup>é</sup> n'ai, "grass lies," grass game. 146-11. (Pl. 20, fig. 4.)

ne<sup>é</sup> te li<sup>é</sup>, earthquake. (Pl. 20, fig. 9.)

nûn kwōs tiñ, wild cherries. 131-12.

sai s'əñ dûñ, "sand lies place," sandy beach. 125-4.

si<sup>é</sup> bis 'an, "head(?)", head net. 113-8; 147-1.

sûts bûL nûL t'ai, "skin with it flies," flying squirrel. 122-12.

sne<sup>é</sup> bûL gâl li<sup>é</sup>, "my leg with is tied," my garter. 176-16.

tō ka li gits, "water(?)", mud-hen. 122-9.

tsō<sup>é</sup> kwī t'iñ, "milk it has," a plant. 149-2.

teū nal dalts, "tree-run-around," a bird. 124-5.

teūm meL yits, "stick tied with," net stick. 169-5.

teūn ta' naet bats, "tree among(?)". The name of a monster.  
181-10.

teūn kw t'iñ, "tree (trunk) (?) it has," a kelp. 84-15.

t'əñ t gûl yōs, devil-fish. Contains stem -yōs, to pull. 85-13; 124-16.

t'a kwil iñ, "feathers they have," birds. 88-8.

gae teō k'wût kwī ya gits, "redwood on it runs," red squirrels. 73-7.

k'ai t buL, "hazel(?)", burden-basket. 135-6.

qōt' yō 'ûts, "knee shoots," blue-bird. 122-9.

ADJECTIVES AND VERBS USED AS NOUNS<sup>17</sup>

yīL kai, morning, days. 82-10; 105-14.

yis t'ōt, fog. 126-2. (Pl. 18, fig. 15.)

Cf. yī gûn t'ōt, it is foggy. 121-10.

yis kan, day. (Pl. 18, fig. 14.)

<sup>17</sup> III, 21. A number of the words here listed have the form of verbs, but their meaning is uncertain.

- Le dōñ<sup>é</sup>, salt. Stem -don, to be bitter. 85-3.  
 L taq, black oaks. 89-17. (Pl. 16, fig. 12.)  
 L teùc, dust. 165-1.  
 nal teùl, white thorn. 91-14. (Pl. 16, fig. 10.)  
 naL cōt, grass-snakes. 124-11. (Pl. 10, fig. 8.)  
 naL tōn<sup>é</sup>ts, kangaroo-rats. Stem -tōn, to jump. 73-10.  
 na nin <sup>é</sup>ai<sup>é</sup> k'wūt, "it has horizontal position on," dam on. 168-9.  
 na dil<sup>é</sup>, "they hang," sugar-pines. 86-17. (Pl. 1, fig. 8; pl. 19,  
 fig. 1.)  
 na gai, "it travels," moon. 81-4.  
 na<sup>é</sup> gi, "it is carried," or "it carries," quiver. 147-1.  
 nō le, deeps(†). Certain mythical places in the ocean. 125-16.  
 sak tō<sup>é</sup>, springs. Stem -tō, water. 88-4.  
 sē lin, blood. Stem -lin, to flow. 144-6.  
 seL te'ōi, herons. 72-4. (Pl. 17, fig. 3.)  
 seL kūt, magnesite beads. 176-13.  
 seL k'ūt dī, kingfishers. 92-17.  
 s daite, "it sits small," cottontail rabbit. 155-12. (Pl. 18, fig. 13.)  
 ba na t'ai, "main one it stands vertical," post. 130-17. (Pl. 19,  
 fig. 3.)  
 del kùets, fawn. 108-9. (Pl. 19, fig. 5.)  
 dīl nīk, whistles. Root -nī "to speak, to make a noise." 165-7.  
 dūl teik, yellow pine. Stem -teik, red. 86-13.  
 ta<sup>é</sup> tsit, low tide. 123-15.  
 te lañ, whale. 83-15.  
 te kūs le<sup>é</sup>, kelp. 85-10.  
 t yīs, sea-lion. 83-11.  
 t kae teō, pelicans. 72-13. (Pl. 15, fig. 3.)  
 t būl, burden basket. 179-11. (Pl. 19, fig. 4.)  
 t kō icts, chestnuts. 89-8. (Pl. 15, fig. 2.)  
 t k'an, ridge. Stem -k'an, to be on edge. 99-3. (Pl. 9, fig. 8.)  
 ts'ūs nō<sup>é</sup>, "they are vertical," mountains. 71-2. (Pl. 19, fig. 6.)  
 ts'kaL dūñ, he had walked place. 116-13.  
 te'e naL dūL, comb. 172-15.  
 te'e nes, thunder. 77-12.  
 te'e k'as, brush fence. 115-16.  
 te' wōc, foam. 121-16. (Pl. 19, fig. 11.)  
 te' ga, basket pan. 113-10. (Pl. 19, fig. 10.)  
 te ga ts'e<sup>é</sup>, twine (rolled on the thigh). 116-10. (Pl. 19, fig. 8.)  
 gun da nit, spring was. 121-13.  
 kal dac, "it comes up(†)," morning star. 101-13.  
 kwī yañ, old men. Stem -yañ, to grow, to pass through life. 105-1.  
 kwūn tâc ka ta, shallow places. 75-2.  
 kwūn teL, valley. Stem -teL, to be wide, or flat. 91-14. (Pl. 19,  
 fig. 12.)  
 k'it da ye, flowers. 78-6.  
 k'ūs teL, flat way. Stem -teL, to be wide, or flat. 181-3.

## VERBS WITH INSTRUMENTAL PREFIX USED AS NOUNS.

- bûl sùl teī, seed-beater. 113-11.  
 bûl te qôt, net rope. 117-14.  
 bûl gûl gûs, fire-sticks. 110-11. (Pl. 19, fig. 2.)

POLYSYLLABIC NOUNS UNANALYZED<sup>18</sup>

- a dits, grasshoppers. 94-8.  
 in tce<sup>e</sup>, deer. 71-4.  
 i da kī, (a kind of rope). 114-1.  
 i dakw, Wailaki. 172-8. (Pl. 17, fig. 1.)  
 ô <sup>e</sup>est', pestle. 113-9.  
 ûn teûn, peppernuts. 94-7.  
 yai in tañ<sup>e</sup>, mole. 96-6. (Pl. 20, fig. 3.)  
 wa te'añ, hole through. 78-9. (Pl. 16, fig. 8.)  
 la ce<sup>e</sup>, buckeyes. 94-6. (Pl. 1, fig. 2.)  
 naL gī, dog. 91-9. (Pl. 2, fig. 3; pl. 16, fig. 11.)  
 na nec, people. 71-7. (Pl. 16, fig. 13.)  
 na<sup>e</sup> cō k'a, robin. 72-9. (Pl. 17, fig. 2.)  
 na teûl, orphan. 102-6. (Pl. 10, fig. 5.)  
 na te'aite, swallows. 73-1.  
 na kōñ, clover. 152-5.  
 nōñ k teûñ, tar-weeds. 94-4. (Pl. 16, fig. 15.)  
 nûn te'ût, strings. 117-13.  
 nûn ka dûñ, men. 165-13.  
 sa teûñ, tan-oaks. 88-9.  
 sùl sûnte, chipmunks. 73-8.  
 sûn Lants, a star or constellation. 99-8.  
 sùl gīts, lizard. 97-4.  
 ca<sup>e</sup> na<sup>e</sup>, creek. 79-3. (Pl. 4, fig. 6; pl. 17, fig. 4.)  
 ban yō, turtle-doves. 92-16.  
 ban sīts, sandpipers. 73-2.  
 ban tō<sup>e</sup>, ocean. 86-10. (Pl. 17, fig. 5.)  
 ban teō, mussels. 84-13. (Pl. 17, fig. 8.)  
 be liñ, eels. 90-15. (Pl. 17, fig. 7.)  
 bel get, spear head. 133-8. (Pl. 17, fig. 10.)  
 bel kats, fish-spear. 128-12. (Pl. 17, fig. 11.)  
 be nic, prongs. 170-5.  
 bûs bûnte, barking-owls. 92-8. (Pl. 17, fig. 9.)  
 bûste lô, owls. 72-2. (Pl. 17, fig. 12.)  
 bûte k'ai<sup>e</sup>, seagulls. 72-12. (Pl. 15, fig. 16.)  
 das tcañ, gopher. 122-6.  
 da taits, grey squirrels. 73-6.  
 da tcañ<sup>e</sup>, ravens. 72-2.  
 da tceL, storage bin. 138-2.  
 dô li, bears. 71-6.

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<sup>18</sup> III, 16.

- dūl lants, salamanders. 84-4.  
 dūn dai, arrowheads. 111-4.  
 ta ka tce, crawfish. 91-2.  
 te le<sup>ε</sup>, sack. 113-7. (Pl. 18, fig. 1.)  
 tūn nī, roads.<sup>18a</sup> 78-4. (Pl. 17, fig. 13.)  
 tūn nūc, manzanita berries. 94-5.  
 tsūs na, yellow-jackets. 91-7.  
 tcaL nī, varied robins(†). 72-4.  
 tei lil, screech-owl. 92-8.  
 teil lē k'e, slime. 161-12.  
 tein nūn<sup>ε</sup>, stuffed deer heads. 177-10.  
 tei tcañ, white oak. 131-11.  
 teō bağ, poison. 163-7. (Pl. 18, fig. 6.)  
 teūn nūL teūnte, Lewis's woodpecker. 72-8. (Pl. 19, fig. 13.)  
 teūn te' bağ, woodpeckers. 72-11. (Pl. 18, 4.)  
 teūn te' gī teō, pileated woodpecker. 72-8.  
 te'a la, sunflower seed. 138-6. (Pl. 18, fig. 2.)  
 te'a hał, frog. 112-11. (Pl. 18, fig. 3.)  
 te'ī be teiñ, fir. 86-8.  
 te'ō la kī, meadow-larks. 72-10.  
 te'ūn t yae, condors. 72-7.  
 te'ūn t'añ, acorns. 88-15.  
 te'ūs sai<sup>ε</sup>, chicken-hawks. 72-3.  
 te'ūsts, mill-basket. 113-9.  
 te'ū be, firs. 90-1.  
 te' la kī, sapsuckers. 73-11.  
 te' lē linte, humming-bird. 102-12.  
 te' nal dūñ, adolescent girl. 175-10. (Pl. 19, fig. 7.)  
 te' sī teūn, coyote. 72-1. (Pl. 18, fig. 9.)  
 te' kak', net. 84-8. (Pl. 18, fig. 5.)  
 t'e kī, girls. 111-2. (Pl. 17, fig. 15.)  
 gō ya nī<sup>ε</sup>, stars. 74-7. (Pl. 18, fig. 7.)  
 kaç kits, old man. 108-2. (Pl. 18, fig. 8.)  
 ke bûl, knife. 78-11.  
 kī tsa<sup>ε</sup>, basket-pot. 113-8.  
 kwī yint, pigeon. 73-12. (Pl. 18, fig. 10.)  
 k'il lek, boy. 119-7.  
 k'ūn ta gits, jack-rabbits. 73-6. (Pl. 18, fig. 11.)

## PRONOUNS<sup>18b</sup>

### PERSONAL

The personal pronouns seem originally to have been confined to the first and second persons, although it is not easy to explain

<sup>18a</sup> Cf. Hupa tin, road, III, p. 13.

<sup>18b</sup> III, 29.

all the third persons as demonstratives. There is a simple form, nominative or accusative; and an emphatic possessive, a dative, and an ablative of accompaniment, apparently formed by suffixes.

*First Person Singular*

cī, I. 78-14. (Pl. 39, fig. 9; pl. 42, fig. 1.)  
 cī ye<sup>ε</sup>, mine. 141-6. (Pl. 22, fig. 2.)  
 ea, for me. 103-9. (Pl. 22, fig. 1.)  
 cūL, with me. 137-2.

*First Person Plural*

ne hiñ, we. (Pl. 5, fig. 8.)  
 n hi ye<sup>ε</sup>, ours.  
 n hūL, with us. 125-2.

*Second Person Singular*

niñ, you. 79-7.  
 ni ye<sup>ε</sup>, yours. 117-1.  
 na, for you. 152-6.  
 nūL, with you. 131-6.

*Second Person Plural*

nō hiñ, you. 114-11. (Pl. 28, fig. 13; pl. 31, fig. 11.)  
 nō hi ye<sup>ε</sup>, yours.

*Third Person*

bī ye<sup>ε</sup>, their, hers. 85-4; 88-5.  
 ba, for it. 113-12; 149-12.  
 būL, with it. 85-5.  
 kīn, himself. 88-7.  
 kin yī, himself. 149-13.  
 kiñ ha<sup>ε</sup>, him (only). 130-3.  
 kī ye<sup>ε</sup>, his. 91-9.  
 kwa<sup>ε</sup>, for him. 110-9.  
 kwūL, with him. 91-9.

PERSONAL DEMONSTRATIVES<sup>19</sup>

hūñ, he, him.<sup>19a</sup> 174-1; 123-16.  
 hūL, with him. 94-13.  
 yōñ, that fellow. 167-9.

<sup>19</sup> III, 31-33.

<sup>19a</sup> It appears that a suffix ñ renders a demonstrative personal in its application. This also appears in Hupa adjective pronouns and numerals.

## DEMONSTRATIVES

- hī, the (practically an article). 99-6.  
 hai ye, that. 128-12.  
 ha yī, those, that one. 171-19. (Pl. 21, fig. 15; pl. 45, fig. 1.)  
 Cf. the personal demonstratives hūñ and hūL above.  
 dī, this. 74-9. (Pl. 24, fig. 15.)  
 yī, right here. (Pl. 21, fig. 6.)  
 yī bañ, the other side. 133-4. (Pl. 21, fig. 8.)

The more remote has the vowel *ō* or *ū* with the same initial.

- yū i, over there. 100-4.  
 yō i, yonder. 100-7.  
 yō ye, there it is. 182-3.  
 yō ōñ, over there. 127-14. (Pl. 21, fig. 7.)  
 yō ōñ ha<sup>ε</sup>, yonder. 75-3.  
 yō yī de<sup>ε</sup>, far north. 77-1. (Pl. 21, fig. 5.)  
 yōk', way. 104-9.  
 Cf. yōñ, that fellow. 167-9.

INTERROGATIVE AND INDEFINITE PRONOUNS<sup>20</sup>

These words are usually interrelated in form. There are four initial syllables: *da-*, relating to conditions; *dan-*, used of persons; *dī-*, employed with things and non-human persons; *ta-*, which is used of both time and place. With each of these there are found three suffixes: *-djī* (*-gī*), the simple interrogative, asking which one of several; *-ca*, *-cañ* (*-ca-* plus *ñ*) with an implication of wonder in the question; and *cō<sup>ε</sup>*, used in affirmations concerning anything unusual or mysterious.

- da t ya teī, why. 129-10.  
 dan djī, who. 120-15.  
 dī djī, what. 97-14.  
 ta djī, when, 102-12.  
 ta djī, where. 182-3. Pl. 10, fig. 7; pl. 22, fig. 7.)  
 10, fig. 7; pl. 22, fig. 7.)  
 da t ya cañ, what is the matter. 114-7.  
 dan cañ ha<sup>ε</sup>, who. 144-4.  
 dī cañ, what. 79-2.  
 ta cañ, where. 78-7.  
 da t ya cō kwûc, something is wrong. 114-13.  
 dan cō kwûc, stranger. 119-8.  
 dī cō<sup>ε</sup>, something. 99-15.  
 ta cō kwûc, somewhere I guess. 119-1.  
 taç cō<sup>ε</sup>, sometime. 135-13.

<sup>20</sup> III, 32.

The following are also of interest:

- da t'in cō, very bad. 122-12.  
 da tī ca nūñ, what will be. 85-6.  
 dac t ya cō de<sup>ε</sup>, if anything is wrong. 166-10.  
 dāc tīn dji, why does it do that? 130-14.  
 dān te cō<sup>ε</sup>, something. 167-3.  
 dān te ca mūñ, how will it be? 78-13.  
 dān te cō kwūc cū, something wrong I guess because. 115-4.  
 dān te gī, how. 139-11.  
 da ya<sup>ε</sup> t'īñ ge, what did they do? 166-4.  
 da ya<sup>ε</sup>n dji, what they say. 153-14.  
 dān Lāñ gi, how many. 166-12.  
 dān ca ūñ, who is it? 170-12.  
 da nī cañ, who is he? 97-4.  
 da hīn tē, what you say. 176-10.  
 dī kwōn dī, what kind. 80-4.  
 dō n kē hīt', nothing too bad. 128-1.  
 dō dān cō<sup>ε</sup>, nobody. 99-4.  
 t'a dīn cō<sup>ε</sup> kwūc, for some reason. 136-8.

## ADJECTIVES<sup>21</sup>

Qualifying adjectives are conjugated after the manner of verbs. The stems of such adjectives are listed with the verbal stems. Many adjectives are listed under nouns with which they form compounds.

### PRONOMINAL ADJECTIVES

In addition to the strictly pronominal adjectives such as La<sup>ε</sup>, another, certain similar ones which are not conjugated are included.

- ō wūñ, some. 122-14.  
 wan t'a<sup>ε</sup>, some. 91-10.  
 wūn, some. 95-6.  
 La<sup>ε</sup>, another, other. 76-3; 79-5.  
 La mūñ, will be many. 78-6.  
 La ne, much. 120-15.  
 Lan hit, much. 137-7.  
 Lan dūñ, many. 138-8.  
 Lān tē le, will be many. 173-7.  
 Le ne<sup>ε</sup> ha<sup>ε</sup>, people. 83-4. (Pl. 21, fig. 10; pl. 37, fig. 13.)  
 L ta, every way. 129-4.  
 L ta'kī, kind. 83-1. (Pl. 21, fig. 11.)

<sup>21</sup> III, 33.

sōste, slender. 123-16.  
 swōlte, small. 116-9.  
 han dət ta<sup>ε</sup>, last ones. 90-17.  
 teō yī, another. 118-2.  
 teō yī ha<sup>ε</sup>, again. 80-2.  
 teō yī ta', other places. 149-9.  
 t'e', raw. 109-11. (Pl. 11, fig. 4.)  
 kwûn Lạn, every. 82-9.  
 kwûn Lạn, many. 114-12.  
 kwûn Lạn ha<sup>ε</sup>, every one. 130-7.

### NUMERALS<sup>22</sup>

The Athapascan numerals are generally decimal in their arrangement. Kato follow a quinary system as far as ten. This undoubtedly is connected with the practice of counting the fingers, six being "one on the other side." The Yuki and Pomo neighbors of the Kato make use of octonary and quinary systems, respectively. Four nək ka<sup>ε</sup> nək ka<sup>ε</sup>, two-two, has displaced diñ kû which prevails in the other Athapascan dialects nearby.

#### CARDINALS

La ha<sup>ε</sup>, one. 82-5.  
 nək ka<sup>ε</sup>, two. 178-4.  
 tak', three. 178-5. (Pl. 20, fig. 10.)  
 nək ka<sup>ε</sup> nək ka<sup>ε</sup>, four. 108-3.  
 la<sup>ε</sup> sa nī, five. 165-17.  
 yī ban La<sup>ε</sup> ha<sup>ε</sup>, six only. 140-9.  
 yī ban nək ka<sup>ε</sup>, seven. 166-1. (Pl. 20, fig. 13.)  
 yī ban tak', eight. 103-9.  
 yī ban nək ka nək ka, nine.  
 la<sup>ε</sup> L ba<sup>ε</sup> ûn, ten. 102-14.  
 la<sup>ε</sup> L ba<sup>ε</sup> ûn bīL La ha<sup>ε</sup>, ten with one.  
 na dûn la<sup>ε</sup> L ba<sup>ε</sup> ûñ, twenty. 178-8.  
 ta dûn, thirty.

#### MULTIPLICATIVES

tak' dûñ, three times. 165-11.

#### DISTRIBUTIVES

La ha<sup>ε</sup> ta, one at a time. 165-15.  
 nək ka<sup>ε</sup> ta ha, two in a place. 108-2.  
 tak' ta, three at a time. 165-16.

<sup>22</sup> III, 32.

DIRECTIONAL WORDS<sup>23</sup>

These directional words are closely connected with nouns in their meaning, the second syllable usually being a monosyllabic name of some direction or cardinal point. They differ from nouns in requiring a demonstrative prefix and in their use, which is usually adverbial.

-nûk', to the south, perhaps "up-stream" was its original meaning.

yō yī nûk', way south. 75-9. (Pl. 20, fig. 14.)

hī nûk', south. 139-13.

hai nûk', here south. 150-14.

hai nûk' k'a<sup>ε</sup>, way south, south along. 86-15; 107-16.

dī nûk', south. 75-6. (Pl. 20, fig. 15.)

-na ûñ, from the south.

yī na ûñ, from the south. 107-9.

hai na ûñ, from south. 148-9.

-se<sup>ε</sup>, to the west, down hill.

yō yī se<sup>ε</sup>, far west. 126-6.

hai se<sup>ε</sup>, down hill. 106-3.

dī se<sup>ε</sup>, west, down here. 77-11; 142-8.

-siñ ûñ, from the west.

hai siñ ûñ, from the west. 78-10.

dī siñ ûñ, in the west. 80-11.

-de<sup>ε</sup>, to the north, perhaps originally "down-stream."

yō yī de<sup>ε</sup>, far north. 77-1.

hī de<sup>ε</sup>, north. 77-1.

hai de<sup>ε</sup> te'ûñ<sup>ε</sup>, north toward. 115-7.

dī de<sup>ε</sup>, north. 76-12.

-da<sup>ε</sup> ûñ, from the north.

yī da<sup>ε</sup> ûñ, from the north. 75-3.

hai da<sup>ε</sup> ûñ, from the north. 78-8.

dī da<sup>ε</sup> ûñ, from the north. 74-10.

-dûk, to the east, uphill.

yī dûk', up hill. 180-3.

yōk wī t'ûkw, far above. 77-3.

hai dûk', up. 99-2.

dī dûk', east. 75-4.

<sup>23</sup> III, 328-330.

- da ûñ, from the east, down hill.  
 hai da ûñ, down hill. 180-5.  
 dī da ûñ, from the east. 101-9.
- bañ, the opposite side, particularly of streams.  
 yī bañ, other side. 133-4. (Pl. 21, fig. 8.)  
 hai bañ, after that. 111-4.  
 dī bañ, to other side. 105-1.  
 Cf. L ba<sup>e</sup> ûñ, both sides. 144-10. (Pl. 21, fig. 9.)

ADVERBS<sup>24</sup>

Adverbs are mostly either monosyllables having adverbial meaning, like k'ûñ, recently, or such elements with demonstrative and negative prefixes.

## PLACE

- ī niñ, in a corner. 132-12.  
 yōk wī t'ûkw, far above. 77-3.  
 yō k'ûñ, way off. 107-5.  
 ne se k'a, the long way. 140-17.  
 nes se, is far. 167-2.  
 nes dūñ, far. 75-6.  
 nes dūn ē, it is far. 140-17.  
 nes dūñ ha<sup>e</sup>, far away. 86-14.  
 nūn kwī ye, underground. 75-8. (Pl. 21, fig. 12.)  
 hakw, right here. 160-1.  
 ha kwān, up there. 182-9.  
 da<sup>e</sup>, up. 99-15.  
 de k'a, here. 79-2.  
 dī ûn, up there. 109-10.  
 djañ ha<sup>e</sup>, here. 97-9.  
 t ga ma, along shore. 77-1.  
 t ga mats, by the shore. 155-1.  
 kūn dūn ne, close. 104-13.  
 kūn dūntc, nearby. 79-6. (Pl. 22, fig. 12.)  
 kwūn nūn ûñ, up this way. 85-8.

## TIME

- han dūt, next time. 136-4.  
 ha gī, long time. 134-3.  
 ha ge<sup>e</sup> dūñ<sup>e</sup>, long time. 106-17.  
 ha ge kwūc, long time probably. 139-1.  
 hakw dūñ<sup>e</sup>, then. 71-2. (Pl. 5, fig. 7.)  
 hō ta, then. 84-10.

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<sup>24</sup> III, 328-338.

dañ<sup>é</sup>, already, long ago. 78-14; 121-13.  
 da sīts, soon. 136-5. (Pl. 22, fig. 6.)  
 dō k'ũñ, already, not recently. 136-7; 175-1.  
 dō k'ũñ ha<sup>é</sup>, long ago. 155-15.  
 t'ũn dũñ ha<sup>é</sup>, all the time. 113-1.  
 gũn t'ē, now. 81-2.  
 kac bī<sup>é</sup>, tomorrow. 104-9. (Pl. 22, fig. 10.)  
 kw t nũñ, next time. 166-9.  
 k'ũñ, just now. 103-8.  
 k'ũn nũñ, before. 97-14.  
 k'ũn dīt', before. 137-5. (Pl. 22, fig. 11.)  
 k'ũn dũñ, yesterday. 128-7. (Pl. 22, fig. 13.)  
 k'an cãñ, this time. 167-8.  
 k'at de<sup>é</sup>, soon. 96-4. (Pl. 22, fig. 14.)

## MANNER AND DEGREE

La kwa, just, only. 155-9; 164-11.  
 La kit, for nothing. 166-9.  
 La kwit, anyway. 133-14.  
 nīkts (nī ikts), slowly. 100-13; 140-16. (Pl. 21, fig. 13.)  
 sa'dũñ, alone. 120-16.  
 sa'dũñ ha<sup>é</sup>, alone. 87-7.  
 sa'dũñ k 'wa, alone. 172-3.  
 sũt', little way. 161-5.  
 st'ō<sup>é</sup>, nearly. 123-8.  
 cãñ, only. 78-6.  
 ca nī, only. 71-2.  
 cō, too much. 82-10.  
 cō<sup>é</sup>, in vain. 130-9.  
 cō n cōñ, very well. 109-4.  
 cōñ kę, well. 166-5.  
 cōñk', well. 71-1. (Pl. 22, fig. 3.)  
 cōñ kwa, well. 181-13.  
 cō<sup>é</sup>t, in vain. 159-12.  
 kakw, fast. 93-12.

POSTPOSITIONS<sup>25</sup>

The following elements when suffixed to nouns or pronouns make prepositional phrases.<sup>25a</sup>

-ye, under.

ō ye<sup>é</sup>, under. 101-6. (Pl. 21, fig. 2.)

ō ye ta<sup>é</sup>, under places. 180-1.

<sup>25</sup> III, 339-343.

<sup>25a</sup> Cf. also the Locative Suffixes of Nouns, p. 24.

-*wakw*, to one side of.

*wakw*, to one side. 97-4. (Pl. 11, fig. 1.)

*nō' wa ka*, about yourselves. 173-2.

*nō wakw*, away from us. 173-5.

-*lai<sup>ε</sup>*, top, end, on top of.

*ū lai<sup>ε</sup>*, its top. 103-13. (Pl. 21, fig. 3.)

-*L*, with.

*būL*, with it. 85-5.

*kūL*, with him. 91-9.

-*na*, around, encircling.

*ō na*, around it. 77-2.

-*na tag ha<sup>ε</sup>*, without the knowledge of.

*kw na tag ha<sup>ε</sup>*, without his knowledge. (Pl. 8, fig. 9.)

*ū na tag ha<sup>ε</sup>*, not knowing. 156-9.

*nō na tag ha<sup>ε</sup>*, without our knowledge. 129-15.

*kūc na tag ha<sup>ε</sup>*, without their knowledge. 155-8.

-*nīte*, midway of.

*ō nīte*, half-way. 122-15.

*ō nī teūt*, its middle. 162-14.

-*nō<sup>ε</sup>*, behind.

*ū nō<sup>ε</sup>*, behind it. 103-2.

-*nē dūñ*, base of.

*kin nē dūñ*, its base. 182-10.

-*bī<sup>ε</sup>*, in. (The element may be *-ī<sup>ε</sup>*, *b* being the pronoun.)

*bī<sup>ε</sup>*, in it. 97-13. (Pl. 6, fig. 7.)

*dī bī<sup>ε</sup>*, this in. 90-16.

-*dai<sup>ε</sup>*, outside of.

*ō dai<sup>ε</sup>*, outside. 98-4. (Pl. 21, fig. 4.)

-*dūk'*, up, on top.

*kw dūk'*, top. 127-9.

-*ta'*, among.

*bī ta'*, among. 107-14.

*dī ta'*, this place. 157-5.

-*tūs*, over, beyond.

*ō tūs*, beyond it. 77-12.

*kw tūs*, over him. 156-14.

-*tūk gūt*, between

*ō tūk gūt*, between. 160-9.

**-te'ûñ<sup>ε</sup>**, to, toward.a te'ûñ<sup>ε</sup>, to himself. 87-7.ō te'ûñ<sup>ε</sup>, to him. 79-9. (Pl. 3, fig. 4.)ū te'ûñ<sup>ts</sup>, close by. 156-10.nō te'ûñ<sup>ε</sup>, to you. 97-7.L te'ûñ<sup>ε</sup>, together, toward each other. 104-1.kw ts'ûñ<sup>ε</sup>, to him. 174-2.**-te'ûñ a**, before, in front of.

ū te'ûñ a, before it. 153-3; 77-7.

**-t'ûkw**, above, beyond.

ō t'ûkw, above, way back. 77-3; 104-11.

**-t gûñ**, around, behind.<sup>26</sup>

a te gûñ, around yourselves. 169-4.

**-kwa<sup>ε</sup>**, for.kw kwa<sup>ε</sup>, for him. 119-1.

nō kwa, for us. 181-7.

**-ke<sup>ε</sup>**, behind.ske<sup>ε</sup>, after me. 97-10.ske<sup>ε</sup> ha<sup>ε</sup>, behind me. 141-8.**-k'e**, back, in the opposite direction.

at k'e, back of himself. 86-17.

**-k'wût'**, on (perhaps combined with a demonstrative).

k'wût', on it. 75-6.

PARTICLES AND INTERJECTIONS<sup>27</sup>

aL te, come on, well. 98-6; 125-7.

a bī, stop. 100-1.

ē he, that is so. 173-14. (Pl. 21, fig. 1.)

ū wē, O yes. 100-10.

ûñ, it was. 182-9.

L<sup>ε</sup> ûñ, so it is. 100-3.na <sup>ε</sup>a<sup>ε</sup>, here. 97-13.

nī ī, say. 164-9.

nī ic, say. 100-3.

nō dō<sup>ε</sup>, nō' dō, go ahead, come. 103-7; 115-7.he ū<sup>ε</sup>, yes. 82-2. (Pl. 21, fig. 14; pl. 33, fig. 9.)

dō, no, not. 79-4; 100-10. (Pl. 7, fig. 1; pl. 22, fig. 8.)

te he he ī, (laughing). 147-5.

tea<sup>ε</sup>, listen. 182-15.ka<sup>ε</sup>, well. 76-12.<sup>26</sup> Cf. prefix t gûñ in t gûñ nas t gets, he looked back. 132-2.<sup>27</sup> III, 343.

## VERBS

In Kato, as in other Athapascan dialects, the verbs are usually complete in their meaning and are really sentences. The adverbial concepts of place and direction are expressed by prefixes standing first in order. The object and subject pronouns precede the verbal stem in the order named. The relation of time in regard to inception, duration, repetition, completion, etc., is also expressed by prefixes, all of which precede the subject. Standing between the subject and the stem are modal prefixes which control to some extent the voices of the verb.

The stems themselves often vary in the quality of the vowel and in the final consonants in a manner analogous to accent. These varying forms occur in different tenses. Many of the stems indicate the character and shape as well as the number of the object or subject. Some stems are identical with monosyllabic nouns. The act itself in these instances seems not to be named, but is understood or inheres in the entire verb without an especial element for its expression.

The suffixes for the most part are subordinating, expressing the time relations, conditions, and the source of information. Not only is the material (prefixes, stems, and suffixes) from which the verbs are made identical, except for regular phonetic changes, with that employed in Hupa, but many of the complete verbs are similar.

## PREFIXES

*First Position*

a-. Certain verbs of a sort usually requiring a double object have this prefix when the direct object does not immediately precede. These verbs express the doing, saying, and thinking of special things.<sup>28</sup> This prefix forms an independent syllable except when followed by c, the first person singular.

- a ya cī laḡ, took me up. 158-14.
- a ne, she said. 152-8.
- a nō' t'e, you are. 139-1.
- a dōc yī, I boast. 128-1.
- a kwāc la ge, I fixed him. 182-14.
- ac t'e ye, I am. (Pl. 40, fig. 7.)

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<sup>28</sup> III, 90.

*Adverbial*

ya<sup>ε</sup>. Used of motion or position upward or into the air.<sup>28a</sup> The duration is .12 seconds. There is syllabic union with the third modal prefixes L and n, perhaps also with c, first person singular. A form yai- appears the probable result of accentuation.

- ya <sup>ε</sup>ac, he put up. 99-10.  
yaL dac bûñ, you must jump up. 82-16.  
yañ <sup>ε</sup>ai<sup>ε</sup>, it stood. 156-15.  
ya kwôL t'a, make him fly. 182-16.  
ya<sup>ε</sup> gûL gal, he threw up. 142-3. (Pl. 23, fig. 1.)  
nô gûL gaL, he threw down. 92-5.

ye', yī'. Used of motion into a house or other partly enclosed space.<sup>29</sup> The form yī' appears to be the result of accent. Duration of ye' is .25, of yī' .18. Syllabic union with following sounds seems never to take place.

- ye nat ya, he went in. 177-13.  
ye hen yac, come in. 141-9.  
ye te' gûn yai, she went in. 132-13. (Pl. 10, fig. 9; pl. 23, fig. 2.)  
yī he dûL, you go in. 97-10; 153-2.  
ye gī nai<sup>ε</sup>, they went in. 107-17.  
te'e nī nai, came out. 164-9.

wai- or wa. Used of position over, at one side of, or near.<sup>30</sup> Duration .12.

- wa in yai, he went around. 97-3.  
wai te' gûn get, he struck over. 164-2.  
wa<sup>ε</sup> ûñ kañ, he placed before him. 129-4. (Pl. 23, fig. 3.)

wa-. Used of motion through an opening or small space.<sup>31</sup> The duration of the syllable is about .27 seconds.

- wa ûñ ñiñ, she carried through. 180-2.  
wa nûn teī bûñ, shall be wind. 80-14. (Pl. 23, fig. 4.)

Le-. Used of the position near or movement toward each other of two or more objects.<sup>32</sup> The duration of the vowel is about .15.

- Lel yīts, he tied together. 174-15. (Pl. 43, fig. 11.)  
Le ges <sup>ε</sup>a<sup>ε</sup>, encircled. 82-15. (Pl. 23, fig. 5.)  
Leñ <sup>ε</sup>a<sup>ε</sup>, (water) met. 83-6.

<sup>28a</sup> III, 39.

<sup>29</sup> III, 41.

<sup>30</sup> Compare the Hupa second wa-, III, 44.

<sup>31</sup> III, 44.

<sup>32</sup> III, 44.

*lûn-*. Used with verbs meaning to assemble. It is perhaps related to the last.<sup>33</sup>

*lûn tes ya hût*, they came together when. 148-9. (Pl. 29, fig. 4.)

*na-*. Used of indefinite movements over the surface of land or water.<sup>34</sup> The ordinary duration for the vowel is .13, but *na ca* and *na ga* have .19-.25. There seems to be contraction with *o'*, the second person plural prefix, and syllabic union with *s*, second modal.

*na ca*<sup>ε</sup>, I will go about. 133-6. (Pl. 23, fig. 7; pl. 35, fig. 10.)

*na ga kwãñ*, he had walked. 154-12. (Pl. 42, fig. 6.)

*na' be*, swim (dual imp.) 111-2. (Pl. 36, fig. 9.)

*na' ke*<sup>ε</sup>, swim (plural imp.). 172-14. (Pl. 45, fig. 2.)

*na wõ' nic*, you played about. 134-17. (Pl. 8, fig. 5.)

*nas* <sup>ε</sup>*ûts*, he ran about. 134-3. (Pl. 29, fig. 1.)

*nas lût*, he burned around. 79-3.

*nai-*, *na-*. Used of horizontal position or motion as across a stream.<sup>35</sup> The duration of *nai-* is .31, of *na-* .16.

*nai* <sup>ε</sup>*ai bûñ*, it will be across, it will have waves. 85-8. (Pl. 23, fig. 8.)

*na nic ge*<sup>ε</sup>, I will carry you across. 141-4.

*na nûñ* <sup>ε</sup>*ai*, fish-weir, "it is across." 133-9. (Pl. 28, fig. 3.)

*na nûn Lat*, jump across. (Pl. 34, fig. 3.)

*na nûn yai*, she started across. 154-2.

*nai d-*, *nai t-*, *na d-*, or *na t-*. Used of position or motion at right angles to a horizontal line or surface.<sup>36</sup> The second syllable begins with *d* if a vowel follows, with *t'* if the following vowel is preceded by a glottal stop, and consists of *t* if followed by a consonant. The duration of the vowel is about .17, varying from .16 to .19.

*nai t gûL* <sup>ε</sup>*a*<sup>ε</sup>, he stood up a stick. 116-6.

*na dõL* <sup>ε</sup>*a*<sup>ε</sup> *bûñ*, let it stand on end. 108-3.

*na t gûL* <sup>ε</sup>*a*<sup>ε</sup>, he stood it up. 76-6. (Pl. 28, fig. 2.)

*na t gûL* <sup>ε</sup>*ãL*, he stood them up along. 88-13. (Pl. 26, fig. 8.)

*na t'a*<sup>ε</sup> *bûn dja*<sup>ε</sup>, will stand up. 91-17.

*na na-*. Denoting a movement downward.<sup>37</sup> The duration of the vowel in the first syllable is about normal (.16), that of the

<sup>33</sup> Compare Hupa *Linyate*, they come together. I, 295-1.

<sup>34</sup> III, 48.

<sup>35</sup> III, 49.

<sup>36</sup> III, 51.

<sup>37</sup> III, 51.

second syllable shorter, about .12, and probably followed by a glottal catch.

- na na iL dŭL, he moved it up and down. 150-1.  
 na na gŭl liñ, it runs down. 121-14.  
 na na gŭl dac, he jumped down. 146-3.  
 na na gŭñ giñ, he took them down. 145-17.  
 na na gŭt yai, he came down. 129-11.  
 na nŭn dac, come down. (Pl. 23, fig. 6.)

nō-. Used of being in or coming to a position of rest on the ground, and also of reaching other limits of motion.<sup>38</sup> The average duration of the vowel is .16, varying from .14 to .19. When followed by *c*, first person singular, *n*, second modal in first person plural, or one of the third modals, it is joined with them in one syllable.

- nō' ēac, put it (imp. plu.). 110-11. (Pl. 28, fig. 7.)  
 nō nañ ať, he untied half way. 122-15. (Pl. 44, fig. 6.)  
 nō na nī kats, I fell back. 182-16. (Pl. 44, fig. 11.)  
 nō nŭn yiñ, they lived. 160-12. (Pl. 29, fig. 12.)  
 nō cŭL gal, throw me. 133-4. (Pl. 25, fig. 1.)  
 nō ga' ac, he put down. 86-11. (Pl. 23, fig. 11.)  
 nō tē' ŭn tō', water reached (a certain point). 75-1. (Pl. 7, fig. 6.)  
 nōc ge', I carried. 182-1.  
 nōn da' añ, we put down. 172-2.  
 nōl k' aš, they fell. 152-2.  
 nōL tiñ, he laid him down. 80-6.  
 nō' ũ' an, he placed. 76-3.

nŭn-. Seems to be used of pressure or impact against a surface. The vowel is short as is usual in closed syllables; from .06 to .1.

- nŭn ic gal, let me chop. (Pl. 42, fig. 7.)  
 nŭn ŭn dŭk k'e', get up. 100-3. (Pl. 44, fig. 8.)  
 nŭn yiL t'o gŭt, she stung when. 156-15. (Pl. 26, fig. 3.)  
 nŭn yiL tsŭL, (ocean) beats against it. 86-12. (Pl. 41, fig. 2.)  
 nŭn neL k'ai, he made stick in. 156-14. (Pl. 45, fig. 9.)  
 nŭn sŭL gal, you beat. 129-10. (Pl. 42, fig. 8.)  
 nŭn s' ŭs dŭk k'e', he got up. 98-5. (Pl. 23, fig. 10.)  
 nŭn s' ŭs tiñ, she took him up. 179-14. (Pl. 39, fig. 7.)

be-. Used of motion along a vertical or steep surface, as a tree or hillside.<sup>39</sup> The duration of the vowel is .2. It unites with weak prefixes when they directly follow.

<sup>38</sup> III, 53.

<sup>39</sup> Compare me- III, 46.

bes ya hût, he climbed up when. 143-9.  
 bes giñ, he carried it up. 98-16.  
 be cō'lôs, lead me up (imp. plu.). 147-6. (Pl. 6, fig. 1.)  
 bē dât, let us climb. (Pl. 23, fig. 13.)  
 da bes ya<sup>ε</sup>, he climbed up. 180-6. (Pl. 6, fig. 4.)  
 ben t'a tē le, you will fly up. 182-11.  
 bec na<sup>ε</sup>, I roast it (I lean it against[?]). 168-16.

This prefix seems to be used also in a figurative sense, at least in one less definite in its meaning.

beL ke<sup>ε</sup>, it is finished. 172-12.  
 be nîL ke<sup>ε</sup> e, I have finished. 78-14.  
 be dûl 'ai<sup>ε</sup>, let us try it. 109-6.  
 be gûn t'eg, he taught. 122-11.  
 bes ya hût, he climbed up when. 143-9.  
 tes ya hût, he went because. 118-3.

da-. Relating to a position higher than the ground.<sup>40</sup> The vowel with considerable aspiration is about .18 in duration.

da ûn dic ge<sup>ε</sup>, I take you up. 141-4. (Pl. 7, fig. 3.)  
 da nō la, she put it up. 181-5.  
 da bes ya<sup>ε</sup>, he climbed on. 180-6. (Pl. 6, fig. 4; pl. 23, fig. 14.)  
 da nō la, she put it up. 181-5.  
 nō la, he put it. 79-13.

de d-, (t-). Used of motion into or position in a fire.<sup>41</sup> The duration of the vowel is about .2.

de dic tañ, I will put in fire. 110-3. (Pl. 39, fig. 2.)  
 de dûñ 'aç bûñ, you may put in fire. 127-12. (Pl. 23, fig. 15.)  
 de t gûn 'añ, he put in fire. 157-13. (Pl. 7, fig. 2.)  
 ye te' gûn 'añ kwạn, he had put in. 115-14.

dje<sup>ε</sup>-. Used of the splitting or separating a mass into two, perhaps more parts.<sup>42</sup> The duration is .12.

dje<sup>ε</sup> gûL tal<sup>ε</sup>, he kicked open. 81-15.  
 dje<sup>ε</sup> gûL teel, he split open. 129-3. (Pl. 24, fig. 5.)  
 dje<sup>ε</sup> gûn t'ats, he divided. 80-3.

tai-, ta-. Used relating to water or other fluids.<sup>43</sup> The usual duration is from .15 to .18, but coming before n or d, it sometimes takes a final n or t and shortens its vowel.

<sup>40</sup> III, 58.

<sup>41</sup> III, 61.

<sup>42</sup> III, 61.

<sup>43</sup> III, 61.

tai <sup>ε</sup>ac bũñ, it (water) will settle back. 85-8.

tai ɳan, drink. 88-6.

ta ya <sup>ε</sup>ō ɳañ, let them drink. 123-6. (Pl. 33, fig. 5.)

ta nas t ya, he came out of the creek. 175-3.

Cf. ɳan nas djöl <sup>ε</sup>, rolled out of fire. 147-9. (Pl. 41, fig. 3.)

ta te'õ' bũL, prepare (soup). 123-13. (Pl. 24, fig. 1; pl. 37, fig. 6.)

ɳat dũL sũs, we dragged out. (Pl. 35, fig. 6.)

ta gũL gal, he threw in water. 90-14.

ya gũL gal, he threw up. 142-3.

tai-, ta-. Uncertain, seems only to occur with stem -t'as -t'ats, meaning to butcher.<sup>44</sup>

tais t'ats, he cut up. 144-3.

ta' t'as, butcher (imp. plu.). 109-4.

ta gũt t'ats, they cut up. 175-4. (Pl. 24, fig. 2.)

dje <sup>ε</sup>gũn t'ats, he divided. 80-83.

te'-. Relating to water, but usually to motion into or position under water.<sup>45</sup> The vowel including marked aspiration has a duration of .16.

te'nō dũg ge <sup>ε</sup>, we will put in water. 139-9. (Pl. 7, fig. 5; pl. 24, fig. 3.)

te'nōl <sup>ε</sup>ũts, it ran in water. 174-10.

te'te' gũn tal <sup>ε</sup>, he stepped in water. (Pl. 38, fig. 10.)

te'na te'ũL deɳ, she washed them. (Pl. 38, fig. 3.)

te'nō nī gī ne, I put in water. 140-1.

nō nī gī ne, I put it down. 137-2.

t gũn-. Meaning around, back, behind.

t gũn nais <sup>ε</sup>ɳan, they turned around. 106-2.

t gũn nas t gets, he looked back. 132-2.

nas t gets, he looked around. 99-5.

ts'ũn-. Meaning away from, in verbs of fleeing.<sup>46</sup>

ts'ũn teL del <sup>ε</sup>, they ran off. 165-10; 178-10.

te'e-. Meaning out of, correlative of ye-, into.<sup>47</sup> The vowel has a duration of about .12. It unites in first person with e and in third person with modals n, l, and L.

te'e nan La, he jumped out. 142-6. (Pl. 34, fig. 4.)

te'e nal <sup>ε</sup>ac, she takes out. 180-11.

te'e nũn yac, come out. (Pl. 24, fig. 4.)

te'e n ɳan, he took out. 170-14.

<sup>44</sup> III, 62.

<sup>45</sup> III, 63.

<sup>46</sup> Compare Hupa tsin-, III, 63.

<sup>47</sup> III, 63.

t'e n gĩñ, he carried out. 98-5.  
 t'e kũ wũl tĩn, he was pulled out. 160-6.  
 t'e'l gal, he was thrown out. 102-7.  
 t'e'l t'ac bũñ, you must carry out. 104-1.  
 t'en yai, he went out. 102-9.

ka-. Used of motion up out of the ground or water and also up a hill or the sky.<sup>48</sup> The average duration is .17, but when the vowel is closed it is about .1.

ka ya<sup>ε</sup> ci<sup>ε</sup>, they dug (bulbs). 148-12.  
 kaɣ<sup>ε</sup> ai bũñ, it will grow up. (Pl. 26, fig. 9.)  
 ka na gũl lē, he came up (out of water). 175-3.  
 ka na mĩl<sup>ε</sup>, they carried it up (the river bank). 175-4.  
 ka nac, sun came up. 81-2. (Pl. 24, fig. 7.)  
 ka sĩ del<sup>ε</sup>, we came up. 141-2. (Pl. 1, fig. 7.)  
 ka gũl<sup>ε</sup> aL kwañ, they had sprung up along. 87-6. (Pl. 27, fig. 7.)  
 ka nac bũn dja<sup>ε</sup>, shall come up. 99-11.  
 k'ē nac bũn dja<sup>ε</sup>, it shall go down. 99-12.

kai-, ka- (kwa-). Used with verbs of searching or looking for.<sup>49</sup> The k is strongly aspirated. The duration of the vowel is normal, .18.

kai n te bũñ, (they) must look for. 173-9.  
 ka ya<sup>ε</sup> ũn te, they looked for it. 179-6.  
 kwa nō<sup>t</sup> tē, look for it. 164-11. (Pl. 24, fig. 6.)  
 ka kw nō<sup>t</sup> te, look for him. 160-1. (Pl. 39, fig. 1.)

kō, kwũn-. Used of general conditions, as of the weather.<sup>50</sup> There seem to be two forms: kwũn- is very short, .06, and kō-, .12.

kō wũn yan, it grew. 166-7.  
 kō wũn nũñ, it (ground) jarred. 177-14.  
 kō wũn sũl, it was hot. (Pl. 1, fig. 5.)  
 kō wũn tel, level. 106-6.  
 dō kō gĩs iñ, one couldn't see. 81-1. (Pl. 24, fig. 13.)  
 kwũn tel tē lit, it was becoming flat. 107-3. (Pl. 27, fig. 2.)  
 kwũn sat, deep water. 74-10. (Pl. 34, fig. 11.)  
 kwũn lañ, it is finished. 77. (Pl. 22, fig. 15.)  
 kō wũn sũL, it was hot. 81-2.  
 gũn sũL, it became warm. 96-4.

kō-, kwũt-. Meaning down, or down hill.<sup>51</sup>

kō te' gũl<sup>ε</sup> ũts, they ran down. 153-9.  
 kwũt te' gũn yai kwañ, he had come down to. 116-5. (Pl. 24, fig. 9.)

<sup>48</sup> Compare Hupa xa-, III, 56.

<sup>49</sup> Compare Hupa xa-, III, 66.

<sup>50</sup> Hupa xō-, III, 94.

<sup>51</sup> III, 57.

kwûn-. Used with a stem -yôt, the verb as a whole meaning to pursue. The vowel has a duration of .09.

kwûn t gi yôt, they pursued him. 145-14.

kwûn tin yôt, they ran after him. (Pl. 30, fig. 13.)

kwûn ya yôl, they followed. 179-8.

kwa-. Seems to be used with the meaning of "manner like."<sup>52</sup> The duration varies from .08 to .12. The glottal stop is usually present.

kwa'la, you (plu.) did. 109-4.

kwâl i mûñ, you must do it. 136-2.

kwâl iñ, he did. 129-4.

kwæ 'i ne, I always do that. (Pl. 28, fig. 12.)

dî kwa<sup>l</sup> siñ, he did this way. 79-12. (Pl. 24, fig. 15.)

coñk' kwa<sup>l</sup> lac, he did well. Cf. 104-6. (Pl. 22, fig. 3.)

kwûn ye'-. Under the ground or water. The first vowel is short, .06; the second syllable ends in an aspiration which may be identical with ye' on p. 43 above.

kwûn ye i dûl kwûc, underground we will go. 138-10.

kwûn ye dûl tûc tel, we will bury it. 115-8.

kwûn ye gûl lat, it has sunk. 174-12. (Pl. 24, fig. 8.)

kwûn ye hî dûl tē le, we will go (underground). 140-15.

tî dûl tē le, we will go. 136-5.

k'e-. Of severing as in biting and cutting.<sup>53</sup>

k'e tc' ûs t'ats, he cut. 146-11.

k'e tc'ûn yān kwān, bitten off. 161-7.

k'e tein nac bûñ, you must bite off. 101-7.

k'ē-. Apparently means down, used only of setting of heavenly bodies.

k'ē nac bûn dja<sup>l</sup>, it (sun) shall go down. 99-12.

k'e nin yac bûñ, you must go down. 101-15.

#### Deictic<sup>54</sup>

The third person of the verb does not have a subjective prefix of the sort and in the position found in the first and second persons, but is marked by the absence of such a prefix. In many cases, however, a prefix with demonstrative force is found.

The singular subject when indefinite or not named in connection with the verb is referred to by tc'-. This follows the

<sup>52</sup> Hupa xa-, III, 77.

<sup>53</sup> III, 85.

<sup>54</sup> III, 99.

adverbial but precedes the first modal prefixes. Usually it forms or begins a syllable which contains no vowels. A following consonant often seems to close the syllable.

- te'ús qōt, he speared it. (Pl. 8, fig. 8.)  
 te'ús t'ók', he flaked. 156-7. (Pl. 11, fig. 8.)  
 te'n neL yīl<sup>ε</sup>, she eats up. 180-9. (Pl. 1, fig. 9.)  
 te' nes tiñ, he lay down. 175-11. (Pl. 5, fig. 2.)  
 te' nūn yai, he came there. 142-14. (Pl. 25, fig. 6.)  
 te'n ne gūL ɛiñ<sup>ε</sup>, he looked at it. 156-16. (Pl. 25, fig. 12.)  
 te' sīn ūñ gī, he is standing. (Pl. 26, fig. 2.)  
 te't tel bañ, he walked lame. 133-6. (Pl. 24, fig. 14.)  
 te't tel būL kwān, he had hung up. 176-3. (Pl. 27, fig. 8.)  
 te'qāL ya<sup>ε</sup> nī, she was walking they say. 93-12. (Pl. 2, fig. 5.)  
 te'gūn yic, he broke it. 79-12. (Pl. 10, fig. 3.)  
 ye te' gūn yai, he went in. 97-11. (Pl. 10, fig. 9.)

What seems to be this prefix was often recorded ts'.

- ts'ūL san, he saw him. 97-4.  
 ts'ús li<sup>ε</sup>, he tied. 145-8.  
 ts' siñ, stood. 75-10.

With no apparent distinction in meaning s' was frequently heard in place of te', and ts'.

- s'ús yī<sup>ε</sup>, he made a house. 168-7. (Pl. 30, fig. 9.)  
 s'ús liñ<sup>ε</sup>, he became. 84-11. (Pl. 32, fig. 3.)  
 s'ús te'añ, he shot it. (Pl. 41, fig. 7.)  
 nūn s'ús dūk k'e<sup>ε</sup>, he got up. 98-5. (Pl. 23, fig. 10.)  
 nūn s'ús tiñ, he picked him up. 179-14. (Pl. 39, fig. 7.)

A subject which is named, or the last mentioned of two or more nouns, is referred to by yī-. This often unites with the third modals.

- ye yī gūn ɛañ, came in. 130-16.  
 yīL sañ, he found. 134-14.  
 yīL sūt, (water) broke. 75-3.  
 yīs t'āts, he cut it. 162-10.  
 nūn yīL t'ō gūt, when he stung. 156-15. (Pl. 26, fig. 3.)  
 yī nēl iñ<sup>ε</sup>, one man looked. 165-11.  
 te'n neL in<sup>ε</sup>, he looked. 88-16.

The plural and the dual when not distinguished by the stem, have ya<sup>ε</sup> in the position occupied by the other deictic prefixes.<sup>55</sup>

- ya<sup>ε</sup>n ya<sup>ε</sup> nī, they said they say. 82-11. (Pl. 4, fig. 4.)  
 be ya<sup>ε</sup>L ɛai<sup>ε</sup>, they tried it. 85-2. (Pl. 28, fig. 5.)  
 ta ya<sup>ε</sup> ō nañ, let them drink. 123-6. (Pl. 33, fig. 5.)  
 ka ya<sup>ε</sup> ūn te, they looked for it. 179-6.  
 ka ūn tē, she looked. 114-9.

<sup>55</sup> III, 99.

The deictic prefixes *te'*-, *yī*-, and *ya<sup>e</sup>*- occur not only referring to the subject but to the object, in which case they are found in all persons of the verb. The Hupa prefix corresponding to *te'*- when used of the object is *k*- or *ky*-, giving evidence of separate origins for forms now indistinguishable in Kato.<sup>56</sup>

- te'el na<sup>e</sup>*, roast. 109-6.  
*te'ic t'a tē le*, I will make. 156-5. (Pl. 40, fig. 5.)  
*te'ō' yañ*, you (plu.) eat. 148-6.  
*te'ō' sūt*, pound. 110-5.  
*te' wō' būl*, carry it (plu.). 110-15. (Pl. 37, fig. 4.)  
*yīs te'añ kwañ*, who shot. 141-12.  
*yī gūn yañ*, (they) ate it. 113-16.  
*te' ōñ gī la nē*, I went after. 136-10.  
*tō ōn gī la ne*, water I brought. 137-1.

### Objective

The object, except when of the third person and definitely named, is incorporated in the verb, occupying a position between the deictic prefixes and the first modals. These weaker forms of the pronoun are found also as possessive prefixes with nouns; first person singular *e*-, first person dual and plural *nō*-, or *n h*-, second person singular *n*-, second person plural *nō*- or *n h*-, third person singular *kw*-, third person plural *ya<sup>e</sup> kw*.

In the case of verbs of speaking with the stem *-nī*, *-n*, the pronoun is combined with *L*, "with," and precedes the deictic prefixes. The pronoun also precedes the prefix *ga*-, *wa*-, meaning "to," of which it is considered to be the object rather than that of the complete verb.

- cūL sūs e*, (nobody) sees me. 176-1.  
*c nōL iñ<sup>e</sup>*, look at me. 103-9.  
*c gī yal*, I am sleepy. 164-4. (Pl. 29, fig. 7.)  
*nō<sup>e</sup> cūL gaL*, throw me. 133-4. (Pl. 25, fig. 1.)  
*be cō' lōs*, lead me up. 147-6. (Pl. 6, fig. 1.)  
*te'e nō' nūñ a ne*, he killed us. 117-6. (Pl. 25, fig. 4.)  
*n he ōL ka kwic*, we will pass the night. 105-3. (Pl. 27, fig. 10.)  
*n hōc t ge<sup>e</sup>*, let me see you. 142-6. (Pl. 43, fig. 2.)  
*ne ō dūñ*, you will die. 177-4.  
*da' n dic ge<sup>e</sup>*, I take you up. 141-4. (Pl. 7, fig. 3.)  
*kw nīL iñ<sup>e</sup>*, she looked at him. 134-2. (Pl. 9, fig. 5.)  
*Cf. cūL te'nī*, he asked me. 182-3.  
*c gaL teōs*, give me. 97-13.

<sup>56</sup> III, 84.

*First Modal*

ō.—There are a few verbal stems which seem to require this prefix, but it has not been possible to isolate it sufficiently to find its meaning. Its position is after the objective and before the following prefixes.

- ōc lañ<sup>ε</sup>, I will get. 137-2. (Pl. 24, fig. 11.)  
 ō't gûc, look at them (imp. plu.). 164-9. (Pl. 25, fig. 13.)  
 n hōc t ge<sup>ε</sup>, let me see you. 142-6. (Pl. 43, fig. 2.)  
 te'ō na gût gûc, he looked back. 87-13. (Pl. 43, fig. 4.)  
 te'ōL yī kwān hût, he had named when. 117-12.

na-. With an iterative force indicating that the act is repeated or the direction is reversed.<sup>57</sup>

- nas li<sup>ε</sup>, he tied up. 145-7. (Pl. 32, fig. 6.)  
 nas dūL lin nē, we have got back. 95-12. (Pl. 3, fig. 6.)  
 nō na nī kats', I fell back. 182-16. (Pl. 44, fig. 11.)  
 te'e nan la, he jumped out. 142-6. (Pl. 34, fig. 4.)  
 te'e na gât dac, he came out again. 149-13. (Pl. 37, fig. 10.)  
 ka na gûl laç, she digs out. (Pl. 31, fig. 1.)  
 nas liñ<sup>ε</sup>, it became (again). 107-8.  
 sliñ<sup>ε</sup>, it became (first time). 76-9.

t-, te-. With a distributive or progressive force as regards the act itself, its object or subject.<sup>58</sup> The form te- is found in tenses expressing definite action. In other cases the vowel û, short and weak, is found, or the vowel is that required by a following prefix.

- tī dūL, let us go. 141-6. (Pl. 38, fig. 2.)  
 tûc ge<sup>ε</sup>, I will carry. 135-4. (Pl. 8, fig. 4.)  
 n tō laL, let him sleep. (Pl. 31, fig. 8.)  
 te' tōL k'as dja<sup>ε</sup>, let him drop acorns. 129-8. (Pl. 10, fig. 4.)  
 tût bûL, it rains. 74-4. (Pl. 36, fig. 12.)  
 te sîL teōl<sup>ε</sup>, I stole. Cf. 141-15. (Pl. 42, fig. 1.)  
 te't te gûs teī<sup>ε</sup>, nearly daylight; the east was reddening. (Pl. 41, fig. 12; pl. 8, fig. 2.)  
 te't te lōs, he led. 175-2. (Pl. 32, fig. 10.)  
 dō ha<sup>ε</sup> te't teL kût, they did not go. 167-17. (Pl. 45, fig. 7.)  
 te't teL bañ, he walked lame. 133-6. (Pl. 24, fig. 14.)  
 n tes laL ya<sup>ε</sup> nī, he went to sleep they say. 83-4. (Pl. 31, fig. 10.)  
 te'tes yai, he went. (Pl. 29, fig. 2.)  
 te't tes de lē, they went on. 108-12. (Pl. 38, fig. 1.)  
 te't tes giñ, he carried. 101-9. (Pl. 43, fig. 3.)

<sup>57</sup> III, 67.

<sup>58</sup> III, 78.

A prefix consisting of d-, the syllable completed by other elements, frequently occurs. No meaning has been discovered. It is, however, required by prefix de-, relating to fire, and na-, to be perpendicular.

- na del tea mûñ, they shall eat. 85-5.  
 na deL gal kwān, he had poured in. 125-13. (Pl. 42, fig. 12.)  
 na des bil<sup>é</sup>, he sprinkled. 123-2. (Pl. 23, fig. 9.)  
 na de gât tsan, they heard again. 107-6.  
 na dīc tea, let me eat. (Pl. 24, fig. 12.)  
 na dōL <sup>é</sup>a<sup>é</sup>, pile up. 103-11.  
 na dōL <sup>é</sup>a<sup>é</sup> bûñ, let stand on end. 108-3.  
 de dūñ <sup>é</sup>ac, you put on the fire. 131-9. (Pl. 23, fig. 15.)

-he, -h-. A prefix with he- or h- follows ye'-(yī), in, na-, back, and stands by itself. It has not been possible to assign any meaning for it.

- yī he <sup>é</sup>ac, take them in. 113-4.  
 ye heL a, come in. 143-1.  
 yī he dūL, you go in. 97-10.  
 ya<sup>é</sup> hes giñ, they carried it. 129-14.  
 nai hes <sup>é</sup>añ, they took it back. 107-10.  
 na hac gāt, I will untie it. 79-1.  
 na hes le ge, it swam along. 128-8.  
 na he sūn t ya de<sup>é</sup>, if you go back. 137-10.  
 na he sūL <sup>é</sup>ûts kwañ, I ran back. 182-6.  
 na hūn das, you go back. 120-12.  
 hī tes gin, she carried them. 135-7.  
 ka hes dī iñ<sup>é</sup>, we will look. 173-17.

### *Second Modals*<sup>59</sup>

There are a few verbs which have the second modal prefixes throughout, but in the greater number they do not occur in the indefinite present. It is in these few present tenses without other prefixes that the force of these second modals is most clearly seen. It is quite clear in these forms that n- indicates completion, s- progression, and g- inception of the act or state. In the great majority of verbs one of these three prefixes is required in the definite or past tense; in most cases, in fact, it is by the presence of one of these second modals that the definite tense is distinguished from the indefinite. They are regularly used with

<sup>59</sup> Cf. Hupa w-, III, 95.

certain adverbial prefixes without much regard to their meaning.<sup>60</sup>

These second modals directly precede the subjective prefixes in the first and second persons and the third modals in the third person with which they form syllables. The progressive *s-*, however, may stand alone in the syllable, be joined to the stem, or close a syllable of which a first modal is the initial.

*g-*, in a few verbs seems clearly to have an inceptive force; in others it seems to occur regularly with certain adverbial prefixes with which its tie seems to be formal rather than logical.

- gī dāt*, we will go. 96-13.  
*gūñ eL*, you carry. 137-13.  
*gūc caL*, I walk. 163-10.  
*ya<sup>ε</sup> gūL gal*, he threw up. 142-3. (Pl. 23, fig. 1.)  
*ye<sup>ε</sup> te<sup>ε</sup> gūn yai*, he went in. 132-13. (Pl. 23, fig. 2.)  
*ta gūt t'ats*, he butchered. 175-4. (Pl. 24, fig. 2.)  
*dje<sup>ε</sup> gūL tcel*, she split open. 129-3. (Pl. 24, fig. 5.)  
*kwūn ye<sup>ε</sup> gūL lat*, it sank. 174-12. (Pl. 24, fig. 8.)  
*kwūt te<sup>ε</sup> gūn yai*, he went down. 116-5. (Pl. 24, fig. 9.)  
*gūL tcat*, he shouted. 165-9. (Pl. 25, fig. 10.)  
*gūn nes*, it became long. 87-1. (Pl. 25, fig. 8.)

*s-*. Verbs employing *s-* are usually of acts or states which continue for some time.

- sī da ye*, I sit. 140-7.  
*sī tī ne*, I lie. 175-16.  
*s gin*, it was. 138-18.  
*stān*, lay. 176-18.  
*stīñ*, lay. 100-2.  
*sta*, he sits. 123-7.  
*sūn da*, you live. 79-7.  
*be nē sīL git de*, I am becoming afraid. 130-15. (Pl. 6, fig. 2.)  
*bī<sup>ε</sup> sta*, he was sitting in. 132-3. (Pl. 6, fig. 7.)  
*te'ūs lī<sup>ε</sup>*, he caught in a noose. 108-4. (Pl. 1, fig. 6.)  
*te'ūs qōt*, he speared it. 128-13. (Pl. 8, fig. 8.)  
*ka sī del<sup>ε</sup>*, we came up. 141-2. (Pl. 1, fig. 7.)

<sup>60</sup> Examples of all three of the second modal prefixes may be seen on *v*, 138. In line 14, *nī gī ne*, I bring, occurs without a prefix. In the next line it occurs in the same form with the prefix *nō*. In both of these the completion of the act is clear. In line 15 *g* occurs in *dō ha<sup>ε</sup> ge gin*, she did not bring it in. The inceptive force is not particularly clear, but the statement may well mean that she did not begin the carrying. The following line has *s* and the stem without other prefixes, *s gin*, it was, and here the meaning is clearly that of remaining in position with no reference to the beginning or end of the act.

n-. Seems to be exactly parallel in its use with g- above, having however the opposite meaning, completion.<sup>61</sup>

- nī ya ye, I came there. 136-17. (Pl. 29, fig. 6.)  
 nī gī ne, I bring. 138-14. (Pl. 43, fig. 8.)  
 nō' 'ac, you (plu.) put it. 110-11. (Pl. 28, fig. 7.)  
 na nūñ 'ai, a fish-weir (it is across). 133-9. (Pl. 28, fig. 3.)  
 nō' 'ac, you (plu.) put it. 110-11. (Pl. 28, fig. 4.)  
 be nīL ke' e, I have finished. 78-14. (Pl. 23, fig. 12.)  
 te'n nōL yōL, let it blow. 80-13. (Pl. 30, fig. 11.)  
 te'n nūL kūt, they came. 154-12. (Pl. 45, fig. 6.)  
 te' nūn yai, he came there. 142-14. (Pl. 25, fig. 6.)

### *Subjective*

The subjective prefixes are, with some exceptions, those used with nouns and postpositions. They stand between the second and third modal prefixes. In the third person the subject is referred to, if at all, by deictic elements.

The first person singular has two prefixes. In the indefinite tense c- is used. It is evidently connected with cī, the independent pronoun.<sup>62</sup>

- ūc yīt, I will make a house. (Pl. 30, fig. 8.)  
 ūc tei ee, I cried. 140-6. (Pl. 8, fig. 6.)  
 ōc lāñ', I will get. 137-2. (Pl. 24, fig. 11.)  
 na ca', I go about. 133-6. (Pl. 35, fig. 10.)  
 nūc 'i ne, I saw it. 137-1. (Pl. 28, fig. 10.)  
 bec 'ai', I will try it. 109-9. (Pl. 5, fig. 5.)  
 bec na', I will roast. 168-16. (Pl. 33, fig. 2.)  
 da'n dic ge', I will pick you up. 141-4. (Pl. 7, fig. 3.)  
 tūc ge', I will carry. 135-4. (Pl. 8, fig. 4.)  
 te'ic t'a tē le, I will feather arrows. 156-5. (Pl. 7, fig. 9.)  
 kwac 'i ne, I always do that. (Pl. 28, fig. 12.)  
 na hūc da, I will go back. 132-8.  
 na hūn dac, go back. 115-7.

The definite tense has the vowel ī, with no known connection with an independent pronoun form.<sup>63</sup>

- nī ya ye, I came there. 136-17. (Pl. 29, fig. 6.)  
 nī gī ne, I bring. 138-14. (Pl. 43, fig. 8.)  
 nō na nī kats', I fell back. 182-16. (Pl. 44, fig. 11.)  
 sī yī ne, I stand. (Pl. 25, fig. 7.)  
 sī tī ne, I lay. 175-16. (Pl. 39, fig. 9.)

<sup>61</sup> III, 95.

<sup>62</sup> Compare Hupa -iūw, -ūw, and -w, III, 97.

<sup>63</sup> III, 100.

cō<sup>ε</sup> gī la ce, I fixed it good. 76-12. (Pl. 31, fig. 5.)  
 dō yī he<sup>ε</sup> e, I am tired. 98-1. (Pl. 36, fig. 6.)  
 be nē sīL get de, I am getting afraid. 130-15. (Pl. 44, fig. 3.)  
 te sīL teōl<sup>ε</sup>, I stole. (Pl. 42, fig. 1.)  
 sī tī ne, I lay. 175-16. (Pl. 39, fig. 9.)  
 stiñ, she lay. 100-2.

The first person dual and plural has a syllable immediately before the stem beginning with d. The vowel is the weak short ū followed by the third modal prefix when it is present, surd l becoming sonant. In its absence the initial of the stem is taken over.<sup>64</sup>

nan dūL <sup>ε</sup>a<sup>ε</sup>, we will make a dam. 163-11. (Pl. 23, fig. 1.)  
 na dūL yīc, let us rest. 140-18. (Pl. 30, fig. 5.)  
 dō yī de he<sup>ε</sup> e, we are tired. 116-17. (Pl. 36, fig. 8.)  
 dō dūL sūs he, we did not see. 116-18. (Pl. 26, fig. 7.)  
 te'nō dūg ge<sup>ε</sup>, we will put in water. 139-9. (Pl. 24, fig. 3.)  
 ka<sup>ε</sup> dūt tea<sup>ε</sup>, well, let us cook. 149-7. (Pl. 25, fig. 11.)

When the stem of the dual and plural is different from that of the singular, instead of the prefix d- the first person in all tenses has ī-, not to be distinguished in sound from that found in the first person singular in the definite tense.

bē dūL, let us climb. (Pl. 23, fig. 13.)  
 tī dūL, let us go. 141-6. (Pl. 38, fig. 2.)  
 ka sī del<sup>ε</sup>, we came up. 141-2. (Pl. 1, fig. 7.)

The second person singular has -n, undoubtedly connected with the independent pronoun niñ, completing the syllable which precedes the stem. It appears to be dropped before the third modals l, L, and d.<sup>65</sup>

ūñ qōt, spear it. 128-12. (Pl. 44, fig. 7.)  
 na nūn dac, come down (imp.). (Pl. 23, fig. 6.)  
 de dūn <sup>ε</sup>ac, put on the fire (imp.). 127-12. (Pl. 23, fig. 15.)  
 te'e nūn yac, come out (imp.). (Pl. 24, fig. 4.)  
 ūL teī, make it. 79-8. (Pl. 41, fig. 8.)  
 nūn sūL gal, you hit. 129-10. (Pl. 42, fig. 8.)  
 te'ūL dūk, crack it. 138-2. (Pl. 38, fig. 8.)  
 k'wūn nūl lūc,<sup>66</sup> put it on. (Pl. 31, fig. 7.)  
 te'ūn yañ, you eat. 125-7. (Pl. 29, fig. 13.)  
 te'o' yañ, you (plu.) eat. 148-6. (Pl. 29, fig. 10.)

The prefix appearing in the second person dual and plural is

<sup>64</sup> III, 98.

<sup>65</sup> III, 98.

<sup>66</sup> n assimilated to the following l.

-ō', in which the aspiration is quite marked. The third modal L completes the syllable when present. In certain cases the vowel seems to be contracted, resulting in aspirated a.

- na te'ō' Lō, set snares. 108-2. (Pl. 25, fig. 5.)  
 n tō' lāL, go to sleep. 110-16. (Pl. 31, fig. 11.)  
 be cō' lōs, take me up. 147-6. (Pl. 6, fig. 1.)  
 ta te'ō' buL, make soup. 123-13. (Pl. 24, fig. 1.)  
 te'ō' yañ, you (plu.) eat. 148-6. (Pl. 29, fig. 10.)  
 ōL k'añ, make a fire. 103-7. (Pl. 3, fig. 7.)  
 na cōL na būñ, you must doctor me. 166-10. (Pl. 33, fig. 4.)  
 ne sōL yañ, you ate up. 136-16. (Pl. 24, fig. 10.)  
 te'n nōL t'as, cut them. 166-15. (Pl. 40, fig. 11.)  
 ō' t gūc,<sup>67</sup> look at them. 164-9. (Pl. 25, fig. 13.)  
 na' be, swim. 111-2. (Pl. 36, fig. 9.)

### *Third Modals*<sup>68</sup>

ō.—When it is desired to convey a command or permission to a third person ō is found directly preceding the prefixes discussed below. By its logical limitation it can only be used in the third person.

- te'ō gac, let him chew it. (Pl. 5, fig. 6.)  
 te'tōL k'as dja<sup>ε</sup>, let him drop it. 129-8. (Pl. 10, fig. 4.)  
 te'ōL tēi dja<sup>ε</sup>, let him make. 140-2. (Pl. 27, fig. 6.)  
 n he ōL ka kwic, we will spend the night probably. 105-3. (Pl. 27, fig. 10.)  
 te'n nōL yōL, let it blow. 80-13. (Pl. 30, fig. 11.)  
 n tō lāL, let him sleep. (Pl. 31, fig. 8.)  
 ta ya<sup>ε</sup> ō nañ, let them drink. 123-6. (Pl. 33, fig. 5.)  
 ō t yats, let it snow. 93-5.

A number of prefixes occur between the subjective prefixes and the stems. In the case of only one of these, L, is it ever possible to discover any meaning or force imparted by it. Certain stems seem always to be preceded by t or d and others by one of the other third modals.

It would seem that L in a few cases has a transitive force, since the same stems when they occur without it have intransitive meaning. In many other cases it is impossible to observe the transitive meaning because the real force of the stem itself is not apparent.

The stem -tāL, -tāL<sup>ε</sup>, referring to movement of the feet has

<sup>67</sup> ō is a prefix, see p. 52.

<sup>68</sup> III, 34.

L when transitive and is without it when used of walking or standing.

- na ûn gûL tɔL, he kicked out. 89-7.  
 nō dûn tɔL, you step. 82-1.  
 nō t gûn tɔL<sup>ε</sup>, stood. 82-3.

The stem -tin, -tic, used of persons, animals, and things of animate origin, has L when transitive or when used of the dead or sick, but does not have L otherwise.

- s'ûL tin, he sick lay down. 158-4.  
 nōL tiñ, he laid him down. 80-6.  
 stiñ, lay. 100-2.  
 nō<sup>t</sup> tic, lie down (plu.). 96-13.

It seems impossible to distinguish fully between the use of L and l. The latter is used always in the first person plural and the former in the second person plural. This difference is almost certainly due to phonetic causes. Occasionally l seems to be used of the passive but it may be that these passives belong to a set of forms with l, neutral in force, that seem to exist for many or all verbs with L.

- nō wil k'as, fell. 152-1.  
 te' tōL k'as dja<sup>ε</sup>, let him drop. 129-8. (Pl. 10, fig. 4.)  
 gûL k'an, a fire was. 108-2. (Pl. 45, fig. 10.)  
 gûL sañ, it was found. 83-13.  
 But compare gûL teɔt, they shouted. 114-3.  
 gûL teɔt, they (elk) shouted. 165-9.  
 gûL teiñ, they made. 178-3.  
 gûL teiñ, were made(?). 162-3.

On the other hand, the many transitive verbs treating of the movement of objects classified by the stem as to shape and number, do not have L, except -tcōs, relating to flat flexible objects.

A number of Kato verb stems are always preceded by t. The iterative prefix, na-, requires t in the same position. It is possible that t also has an iterative force in all cases.

- ō<sup>t</sup> t gûc, look at them. 164-9. (Pl. 25, fig. 13.)  
 n hōc t ge<sup>ε</sup>, let me see you. 142-6. (Pl. 43, fig. 2.)  
 wûn gût t yac, some became old. 107-11. (Pl. 30, fig. 6.)  
 bûL te' gût t yiñ, he doctored. (Pl. 30, fig. 3.)  
 dō ha<sup>ε</sup> ka nōn t yañ, do not be ashamed. 141-8. (Pl. 30, fig. 2.)  
 te t bil<sup>ε</sup>, it rained. 81-1. (Pl. 36, fig. 13.)  
 te' ōn t gets<sup>ε</sup>, he looked at them. (Pl. 43, fig. 5.)  
 ye na gût ya, he went again. 99-4.  
 te'e na gût dac, he came up again. 149-13. (Pl. 10, fig. 6.)

When *l* and *t* (due to preceding *na*) both occur, the *l* precedes the *t*.

- na he*l t kût, they went back. 163-6.  
*na gûl t bañ*, he limped along. 138-13.

#### STEMS

The verbal stems of Kato in many cases have two forms differing phonetically. The present usually has the shorter and weaker form.<sup>69</sup> In a number of cases the variation in the form of the stem is due to what appear to be reduced suffixes *-n*, *-l* and *-L*, and *-c*. It is possible that the glottal stop (°) which seems in some cases to characterize the definite past is also a remnant of a suffix.<sup>69a</sup>

Some stems phonetically identical have no discoverable similarity in meaning. Since the complete verbs built upon these are usually quite different, no confusion arises. It is possible that a number of these could be shown connected in meaning if the history of the language were known.

-°ai°, -°a°, to have position.<sup>70</sup>

- bee* °ai°, I will try it. 109-9. (Pl. 5, fig. 5.)  
*ka l*°a°, it sprang up. 76-10. (Pl. 9, fig. 1.)  
*Le ges* °a°, it was encircling. 82-15. (Pl. 23, fig. 5.)  
*nai* °ai bûñ, it will be across. (Pl. 23, fig. 8.)  
*dî* °ûn es °a°, up there in a row. 109-10. (Pl. 28, fig. 4.)

-°añ, -°ac, to transport or give position to round objects.<sup>71</sup>

- de t gûn* °añ, he put in the fire. (Pl. 7, fig. 2.)  
*nô ga* °ac, he put along. 86-11. (Pl. 23, fig. 11.)  
*de dûñ* °ac, put on the fire. 127-12. (Pl. 23, fig. 15.)  
*nô* °ac, put it (plural). 110-11. (Pl. 28, fig. 7.)

<sup>69</sup> These are discussed above, p. 18.

<sup>69a</sup> In many cases it is difficult or impossible to establish the exact form of the stem. There are several with endings *-c* and *-n* as *-tc'an* and *tc'ac*, to shoot; *-tean* and *-teic*, to leave. It seems probable that *-c* is a suffix. It may be that *-n* is also a suffix and that the stem ends in a vowel. If the *-n* belongs to the stem its disappearance before *c* would occasion no surprise. There are several stems, however, which have the simpler form occurring. In both Hupa and Kato the stem meaning to carry on the back has the forms: *-ge°*, *-gûc*, *-geL*, *-gin* (Kato); *-we*, *-wûw*, *-weL*, *-wiñ*, *-wen* (Hupa).

<sup>70</sup> III, 203.

<sup>71</sup> III, 206. This is probably the stem above to which *-ñ* and *-c* are added.

**-al<sup>ε</sup>, -al, to chew.<sup>72</sup>**

te' gûn al<sup>ε</sup> ya<sup>ε</sup> nî, he chewed it they say. 109-7. (Pl. 26, fig. 4.)  
na te' al, he was chewing. 143-3. (Pl. 41, fig. 5.)

**-atc, -ac, to walk, to crawl.<sup>73</sup>**

ta te'ûl atc ã kwa nañ, (turtles) have come out of water. 95-8.  
tûl ac bûñ, (turtles) must walk. 121-4.  
te't tûl ac bûñ, (crawfish) must walk. 121-4.

**-êil, -êil<sup>ε</sup>, to sit (plural only).**

nô'îl, you stay. 168-1.  
te'nûñ êil<sup>ε</sup>, they sat down. 170-8. (Pl. 28, fig. 9.)  
nô'êil bûñ, you must stay. 105-2. (Pl. 28, fig. 8.)

**-êiñ<sup>ε</sup>, to look.<sup>74</sup>**

n dûl êiñ<sup>ε</sup>, let us look. 168-1. (Pl. 3, fig. 3; pl. 28, fig. 11.)  
kw nîl in<sup>ε</sup>, he looked at him. 134-2. (Pl. 9, fig. 5.)  
dô kô gîs iñ<sup>ε</sup>, one couldn't see. 81-1. (Pl. 24, fig. 13.)  
ya te' kw neL iñ<sup>ε</sup>, they saw him. (Pl. 25, fig. 3.)  
te'n ne gûl êiñ<sup>ε</sup>, he looked at it. 156-16. (Pl. 25, fig. 12.)  
nec êiñ<sup>ε</sup> tê le, I will look. (Pl. 27, fig. 3.)  
nûc êi ne, I saw it. 137-1. (Pl. 28, fig. 10.)

**-êiñ<sup>ε</sup>, to do.<sup>75</sup>**

kwac êi ne, I always do that. (Pl. 28, fig. 12.)  
kwaL iñ<sup>ε</sup>, you (plu.) do that. 113-4. (Pl. 28, fig. 13.)

**-êûts, to run, to move aimlessly.<sup>76</sup>**

nas êûts, he ran about. 134-3. (Pl. 29, fig. 1.)

**-êûts, to shoot.<sup>77</sup>**

te êûts, he shot along. 144-9.

**-yai, -ya, -yac, to go.<sup>78</sup>**

da hes ya<sup>ε</sup>, he climbed up. 180-6. (Pl. 6, fig. 4; pl. 23, fig. 14.)  
ye' te' gûn yai, he went in. 97-11. (Pl. 10, fig. 9; pl. 23, fig. 2.)  
te'e nûn yac, come out. (Pl. 24, fig. 4.)  
kwût te' gûn yai, he went down. (Pl. 24, fig. 9.)  
te' nûn yai, he came there. 142-14. (Pl. 25, fig. 6.)  
te' nûn ya hût, when he came. (Pl. 26, fig. 6; pl. 29, fig. 8.)  
te' tes yai, he went. 116-9. (Pl. 29, fig. 2.)  
Lûn tes yai, they came together. (Pl. 29, fig. 4.)  
ca k'êñ yai, sun went down. (Pl. 29, fig. 5.)  
nî ya ye, I came there. 136-17. (Pl. 29, fig. 6.)

<sup>72</sup> III, 206.

<sup>73</sup> III, 209.

<sup>74</sup> III, 209.

<sup>75</sup> III, 211.

<sup>76</sup> III, 212.

<sup>77</sup> III, 211.

<sup>78</sup> III, 212.

-yal, relating to sleepiness. Used with person affected as object.

c gī yal, I am sleepy. 164-4. (Pl. 29, fig. 7.)

c gī ya lē, I am sleepy. 114-10.

-yan, -yac, -yaL, to grow, to become old.<sup>79</sup>

nes ya nī kwa nañ, it had grown.

wūn gūt t yac, some became old. 107-11. (Pl. 30, fig. 6.)

kō wī yaL, they were growing. 88-15.

-yan, to like (used with possessive prefix and -dji<sup>ε</sup>, heart).

dō kw dji yan, he didn't like. 91-7.

dō s tei kw yan ūñ gī, I don't like him. 142-16.

-yañ, to clear off.

niñ yañ kwañ ūñ gī, it has cleared off. 168-1. (Pl. 26, fig. 1.)

niñ yan de<sup>ε</sup>, when it cleared off. 167-17. (Pl. 27, fig. 1.)

-yañ, to be ashamed.

dō ha<sup>ε</sup> ka nōn t yañ, do not be ashamed. 141-8.

ka nō t yan, she was ashamed. 180-8.

-yan<sup>ε</sup>, -yil<sup>ε</sup>, to eat.<sup>80</sup>

ne sōL yan, you ate up? 136-16. (Pl. 24, fig. 10.)

te' gūn yan<sup>ε</sup>, he ate of it. 129-5. (Pl. 29, fig. 9.)

te' ō' yañ, you (plu.) eat. 148-6. (Pl. 29, fig. 10.)

te' ūn yan, you (sing.) eat. 125-7. (Pl. 29, fig. 13.)

te' neL yil<sup>ε</sup>, she eats up. 180-9. (Pl. 1, fig. 9.)

Cf. nes yī dja<sup>ε</sup>, let me eat. 181-12.

-yats, to snow.<sup>81</sup>

ō t yats, let it snow. 93-5.

-yel<sup>ε</sup>, to stop crying (?).

te't deñ yel<sup>ε</sup>, he stopped crying. 148-4. (Pl. 29, fig. 14.)

-yeg, -ye', to make a deer drive.

te'n na dūl yeg, we will drive. 110-9.

te'n na dūl yeg, she always hunts. 181-7.

-yī, to name, to call by name.

te'ōL yī kwañ hūt, he had named when. 117-12.

ōl yī būn dja<sup>ε</sup>, shall be called. 99-7.

-yiñ, to stand.<sup>82</sup>

sī yī ne, I stand. (Pl. 25, fig. 7.)

Cf. te' siñ ūñ gī, he is standing. (Pl. 26, fig. 2.)

<sup>79</sup> III, 219.

<sup>80</sup> III, 217.

<sup>81</sup> Cf. yas, snow, III, 19.

<sup>82</sup> III, 220.

- yiñ, to live at a place.<sup>83</sup>  
 nō nūn yiñ, they lived. 160-12. (Pl. 29, fig. 12.)
- yīc, yī, to speak. (First and second persons only).<sup>84</sup>  
 kūn nūc yīc, I will speak. 120-9.  
 a dōc yī, I boast. 128-1.  
 kwī nūn yīc, you will talk. 174-3.  
 kō nō' īc, speak (plu.). 120-8.
- yīc, to break.<sup>85</sup>  
 te' gūn yīc, he broke it. 79-12. (Pl. 10, fig. 3.)
- yīc, to whistle.<sup>86</sup>  
 kwōL yīc, he whistled. (Pl. 30, fig. 7.)
- yītc, -yīc, to rest.<sup>87</sup>  
 na dūl yīc, let us rest. 140-18. (Pl. 30, fig. 5.)  
 na ges yītc, he rested. 161-4. (Pl. 30, fig. 4.)
- yīt, yīk, -yī<sup>ε</sup>, to build a house.<sup>88</sup>  
 ūc yīt, I will make a house. 168-6. (Pl. 30, fig. 8.)  
 s'ūs yī(k)<sup>ε</sup>, he made a house. 168-7. (Pl. 30, fig. 9.)  
 gūl yī<sup>ε</sup> ya<sup>ε</sup> nī, he built a house they say. 83-11. (Pl. 30, fig. 10.)
- yōl, -yōL, yō, to blow.<sup>89</sup>  
 te'n nōL yōL, let it blow. 80-13. (Pl. 30, fig. 11.)  
 Cf. ō wī yō, she fanned. 153-3.
- yōs, to lead, to drag.  
 ye<sup>ε</sup> kwil yōs, they took her in. 153-15.
- yot, -yō, -yōl, yōL, to chase.<sup>90</sup>  
 kwūn tin yōt, they ran after him. (Pl. 30, fig. 13.)  
 būn tī gī yō, they chased it. 174-10.  
 kwūn ī yōl, they followed him. 98-11.  
 na būn yōL, they drove. 170-16.
- lai, -la, -lāc, to move several objects.  
 ka na gūl lāc, she digs out. (Pl. 31, fig. 1.)  
 ū na<sup>ε</sup> te'ena lai, her eye she took out. 152-9. (Pl. 31, fig. 2.)  
 k'wūn nūl lāc, put it on (sing. imp.). (Pl. 31, fig. 7.)  
 bel get k'wūn nō'lāc, spear points put on. 168-11. (Pl. 31, fig. 6.)

<sup>83</sup> III, 220.

<sup>84</sup> III, 246. See -nī, -n below, p. 65.

<sup>85</sup> Cf. Hupa -yeūw, to rub, to knead. III, 220.

<sup>86</sup> Cf. Hupa -yeūw, to rest, to get one's breath. III, 220.

<sup>87</sup> III, 220.

<sup>88</sup> See ye, yīk, house, p. 19.

<sup>89</sup> III, 221.

<sup>90</sup> III, 221.

**-lal, -laL, to sleep, to dream.<sup>91</sup>**

n tō laL, let him sleep. (Pl. 31, fig. 8.)

n tes laL ya<sup>ε</sup> nī, he went to sleep they say. 83-4. (Pl. 31, fig. 10.)

nō hin n tō'laL, you (plu.) go to sleep. 110-16. (Pl. 31, fig. 11.)

ū nas laL, he dreamed about. 145-2.

**-lañ, to laugh.**

ya<sup>ε</sup>s lañ, they laughed. 155-2.

dō slañ, he did not laugh. 103-15.

**-lañ<sup>ε</sup>, to get.**

ōc lañ<sup>ε</sup>, I will get. 137-2. (Pl. 24, fig. 11.)

ō' lañ, you get. 133-14. (Pl. 1, fig. 4.)

**-lat, to float.<sup>92</sup>**

kwūn ye' gūllat, it sank. 174-12. (Pl. 24, fig. 8.)

te'n nūllat, it floated there. 148-1.

**-lag, -la', -le', to do.<sup>93</sup>**

kwai la' ya<sup>ε</sup> nī, he did it they say. (Pl. 31, fig. 3.)

dī kwa<sup>ε</sup> lag, he did this way. 154-5. (Pl. 31, fig. 4.)

cō<sup>ε</sup> gī la ge, I fixed it good. 76-12. (Pl. 31, fig. 5.)

a cō<sup>ε</sup> ūl le', dress yourself. 103-1.

**-le<sup>ε</sup>, to sing.**

te'e lē<sup>ε</sup>, he sang. 149-11. (Pl. 32, fig. 1.)

te'e gūlle<sup>ε</sup>, he commenced singing. 105-11. (Pl. 32, fig. 4.)

**-leg, -le', to swim under water.<sup>94</sup>**

na gūll eg, fish were swimming down. 164-1. (Pl. 32, fig. 2.)

wān nī le get, I swam to because. 175-5.

**-lī<sup>ε</sup>, to snare.<sup>95</sup>**

te'ūs lī<sup>ε</sup>, he caught in a noose. 108-4. (Pl. 1, fig. 6; pl. 32, fig. 7.)

nas lī<sup>ε</sup>, he tied up. 145-7. (Pl. 32, fig. 6.)

**-liñ, to flow.**

na na gūll i ne, it runs down. 121-9.

**-liñ<sup>ε</sup>, -le, to become.<sup>96</sup>**

nas dūll i ne, we have got back. 95-12. (Pl. 3, fig. 6.)

s'ūs liñ<sup>ε</sup>, he became. 84-11. (Pl. 32, fig. 3.)

<sup>91</sup> III, 232.

<sup>92</sup> III, 232.

<sup>93</sup> III, 230.

<sup>94</sup> III, 237.

<sup>95</sup> Cf. Hupa -loi, to tie, III, 236.

<sup>96</sup> III, 233.

-lō, to hail.

ō lō, let it hail. 93-6.

-lō, to deceive.

te' kwL lō<sup>ε</sup> út, when he fooled him. 136-14. (Pl. 26, fig. 5.)

skō lō ē kwāñ, he was pretending. 134-6.

-lōs, to lead.<sup>97</sup>

be cō<sup>ε</sup> lōs, take me up. 147-6. (Pl. 6, fig. 1.)

gūl lōs tē le, he will bring it. (Pl. 32, fig. 9.)

te't te lōs, he led. 159-9. (Pl. 32, fig. 10.)

-lūt, -Lūt, to burn (see Lūt, smoke).<sup>98</sup>

ī gī lūt ūñ gī, we are burning. 104-13.

gūl lūt, it was burning. 173-16. (Pl. 32, fig. 8.)

nais Lūt, is burning? 119-6.

na'Lūt, you burn. 119-1.

Cf. de lūg, burns. 100-6.

-lûts, to urinate.

bī<sup>ε</sup> ō<sup>ε</sup> lûts, in it urinate. 138-14.

-lûk, to tell, to relate.<sup>99</sup>

wān te' kō lûk, he told about it. (Pl. 32, fig. 11.)

dō ha<sup>ε</sup> wan kwīl lûk būñ dja<sup>ε</sup>, you must not tell him. 139-13.

-La, to shoot.

ō nō<sup>ε</sup> La būñ, you must shoot. 173-4.

te La, he shot. 144-12.

-Lañ, to be many.

gūn Lañ, became many. 83-14. (Pl. 33, fig. 10.)

gūn La ne, have become many. 169-10. (Pl. 33, fig. 11.)

-Lat, -La (-Lag?), to jump.<sup>100</sup>

na nūn Lat, jump across (sing. imp.). (Pl. 34, fig. 3.)

te'e nan La, he jumped out. 142-6. (Pl. 34, fig. 4.)

na nūn La gât, he jumped across when. 147-7.

-Leg, Le<sup>ε</sup>, relating substances of dough-like consistency.<sup>101</sup>

bī nō<sup>ε</sup> Le<sup>ε</sup>, soak them. 110-6. (Pl. 34, fig. 1.)

bī<sup>ε</sup> nō gūL Leg, they soaked them. 179-1. (Pl. 34, fig. 2.)

-Lûts, to be rough, to be strong.

n Lûts, it is stout. 78-12. (Pl. 34, fig. 5.)

<sup>97</sup> III, 237.

<sup>98</sup> III, 236, 239.

<sup>99</sup> III, 236.

<sup>100</sup> III, 238.

<sup>101</sup> III, 239.

-Lōi, -Lō, -Lōn, to twine a basket, to braid.<sup>102</sup>

te' Lōi ūñ gī, she is making a basket. (Pl. 2, fig. 7.)

na te'ōt Lō, set snares. 108-2. (Pl. 25, fig. 5.)

ōt Lō, braid. 113-3.

a de<sup>e</sup> te'ūs Lō kwān, he had girded himself. 103-3.

na t gūt Lōn, he set snares. 108-4.

-na, relating to hunger. (It has the person affected as an object.)

c gī na<sup>e</sup>, I am hungry. 141-14.

c gī na e, I am hungry. 168-15.

-nai<sup>e</sup>, -na<sup>e</sup>, to roast.<sup>103</sup>

te'eL nai<sup>e</sup>, it is roasted. 113-15.

bec na<sup>e</sup>, I will roast. 168-16. (Pl. 33, fig. 2.)

te'geL na<sup>e</sup>, he roasted. (Pl. 33, fig. 1.)

-na (?)

nōL tin na<sup>e</sup>, were left. 158-10.

-nān, to drink.<sup>104</sup>

ta ya<sup>e</sup> ō nāñ, let them drink. 123-6. (Pl. 33, fig. 5.)

tai nān, drink. 88-6.

ta nān, he drank. 79-2.

-nac, -nai, -na, to go. (Third person only.)<sup>105</sup>

ka nac, it came up. 81-2. (Pl. 24, fig. 7.)

ka gūn nāc, he came up. 75-2. (Pl. 33, fig. 8.)

ye gūn nac, went in. 165-15.

ye gī nai<sup>e</sup>, they went in. 107-17.

ye nī na, came in. 143-11.

-nat', to lick with the tongue.

te'ūL nat', licked. 103-14.

-nes, to be long.

gūn nes, it became long. 87-1. (Pl. 25, fig. 8.)

-nī, -ne, -n, -nec, -nīL, to speak.

he ū<sup>e</sup> te'n nī, yes he said. (Pl. 33, fig. 9.)

te'te gūñ nī, it makes a noise, thundered. 77-10. (Pl. 33, figs. 6, 7.)

a dō<sup>e</sup> ne kwān nāñ, you talk. 166-9.

ya<sup>e</sup>n ya<sup>e</sup> nī, they said they say. 82-11. (Pl. 4, fig. 4.)

kwūL ūn ya<sup>e</sup> nī, he told him they say. 151-9. (Pl. 3, fig. 2.)

te' kūn nec, he talked. 160-1. (Pl. 25, fig. 14.)

dō kīn nec, didn't speak. 141-16.

t gūn nīL, it kept hooting. 179-7.

<sup>102</sup> III, 239.

<sup>103</sup> III, 242.

<sup>104</sup> III, 243.

<sup>105</sup> III, 242.

- níc*, to play.<sup>106</sup>  
 na gō' *níc*, you played with. 134-17.  
 na gūs *níc kwān*, he had been playing. 115-10.
- nūk*, to relate.  
 wūn *kw nūk de*, you tell about when. 176-2.
- sas*, to pull, to drag.  
 ta nas *sas*, he pulled it out. 132-7.  
 tāt *dūl sas*, we dragged out. (Pl. 35, fig. 6.)
- sat*, to be deep.  
 kwūn *sāt*, deep water. 74-10. (Pl. 34, fig. 11.)
- sat*, -*sāt*, to sit.  
 nūn *sāt*, sit down. 140-18. (Pl. 34, fig. 10.)  
 na nō' *sāt*, you (plu.) camp. 173-7.
- sī*, relating to one's head and its position.  
 be t gūn *sī*, had her head close. 152-3.  
 t gūn na *sī*, turned heads. 165-12.
- sīl*, to steam (?).<sup>107</sup>  
 nē *sīl*, I am sweating. (Pl. 35, fig. 1.)
- sīl*, -*sūL*, -*tsūL*, to strike (repeatedly).<sup>108</sup>  
 na neL *sīl*, it struck. 162-11.  
 kwūn ye te'ūL *sīl*, it pounded into the ground. 154-10.  
 ōL *sūL*, peck. 113-9.  
 nūn yīL *tsūL*, beats against it. 86-12.
- sō* (?)  
 nō te gūl *sō*, she pushed in. 153-3.
- sūl*, -*sūL*, to be warm.<sup>109</sup>  
 kō wūn *sūl*, it was becoming hot. 81-2. (Pl. 1, fig. 5.)  
 gūn *sūl le*, is hot. 149-7.  
 gūn *sūL*, it became warm. 96-4.
- sūñ*, to think. (First and second person.)  
 dō *kw ne sūñ*, I was insensible. 182-17. (Pl. 35, fig. 5.)  
 nō nūc *sūñ út*, I thought you. 171-6.
- sūn*, to hide.  
 be nō' *sūñ*, you (plu.) hide it. 113-4. (Pl. 35, fig. 3.)  
 be nōn *sūn kwañ ūñ gī*, you were hiding it. 101-10.  
 be nō gūs *sūn*, she hid. 135-11.

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<sup>106</sup> III, 247.

<sup>107</sup> III, 253.

<sup>108</sup> Cf. -*sūt*, to pound.

<sup>109</sup> See -*sīl* above. III, 253.

**-sũñ, -sũs, to hang, or to be hanging.**

te' teL sũñ, he hung up. 176-13. (Pl. 35, fig. 4.)

naL sũs, hanging. 176-16.

**-sũs, to see.<sup>109a</sup>**

cũL sũs e, (nobody) sees me. 176-1.

dõ dũL sũs he, we did not see. 116-18. (Pl. 26, fig. 7.)

**-sũt, to fall.<sup>110</sup>**

nũL sũt, he fell. 147-8.

te' teL sũt, he fell. 147-7.

**-sũt, to pound.<sup>111</sup>**

ũs sũt, I will pound. 110-3. (Pl. 35, fig. 8.)

k' gũn sũt, she pounded. 135-9. (Pl. 35, fig. 9.)

**-sũt', to wake up.<sup>112</sup>**

tee' sũt, wake up. 100-9.

te'e'n sũt', woke up. 134-13.

**-ca<sup>e</sup>, -cac, to go. (First person only.)<sup>113</sup>**

na ca<sup>e</sup>, I will go about. 133-6. (Pl. 23, fig. 7.)

nan ca<sup>e</sup>, I will cross. 154-1.

ta cac, I went. 182-17.

**-ca', to catch with a hook.<sup>114</sup>**

gũs ca', they caught. 158-8.

**-ce', to spit.<sup>115</sup>**

k'wũt te'e ya ce', they spit on. 154-14. (Pl. 35, fig. 12.)

**-cĩ<sup>e</sup>, -cũ<sup>e</sup>, to be black.**

et cĩ nẽ kwã nãñ, it had turned black. 94-7. (Pl. 3, fig. 1.)

nL cũ<sup>e</sup>, black. (Pl. 36, fig. 2.)

**-cĩ<sup>e</sup>, to dig.<sup>116</sup>**

ka te' gũc cĩ<sup>e</sup>, they dug. 148-11. (Pl. 35, fig. 13.)

ka te' gũn cĩ<sup>e</sup>, they were digging. 148-8. (Pl. 35, fig. 14.)

ka ya<sup>e</sup> cĩ<sup>e</sup>, they dug. 148-12.

**-cõñ, to be good, to be good looking.<sup>117</sup>**

n cõ ne, it is good. 79-4.

n cõñ ãñ gĩ, it is beautiful. 100-5.

<sup>109a</sup> See Hupa -tsis. III, 272.

<sup>110</sup> Hupa -tsit. III, 273.

<sup>111</sup> Hupa -tsit, III, 272.

<sup>112</sup> III, 253.

<sup>113</sup> Hupa -hwai, -hwa, -hwauw, III, 248.

<sup>114</sup> Hupa -hwal, -hwaL, III, 248.

<sup>115</sup> Cf. cek, spit.

<sup>116</sup> Hupa -hwe, III, 249.

<sup>117</sup> Hupa, -hwõñ, III, 201.

-he<sup>ε</sup>, to be tired (but only when used with a negative prefix).

dō yī he<sup>ε</sup>, I am tired. 98-1. (Pl. 36, fig. 6.)

nīñ dōñ he<sup>ε</sup> ũñ, are you (sing.) tired? 141-1. (Pl. 36, fig. 7.)

dō yī de he<sup>ε</sup>, we are tired. 116-7. (Pl. 36, fig. 8.)

-ba, to be thirsty.

ta gī ba, I am thirsty. 141-10.

t gī ba e, I am thirsty. 118-4.

-bañ, to walk lame.

te't tel bañ, he walked lame. 133-6. (Pl. 24, fig. 14.)

nae ba nē, I am lame. 133-8.

na gũl t bañ, he limped along. 138-13.

-bat, -baç (-bûc), to embrace (?).

be te' ma dût, he embraced it when. 131-2.

da kit dũl bûc, he embraced it. 180-3.

-be<sup>ε</sup>, to bet.

te'ûc be<sup>ε</sup>, I bet. 146-12.

-be, -bīl<sup>ε</sup>, to pick.

ya<sup>ε</sup> te' bē, they were picking. (Pl. 36, fig. 10.)

ya<sup>ε</sup> k' tē bīl<sup>ε</sup>, they went to gather. 152-5.

ya<sup>ε</sup> te' be dũñ, they were picking where. 120-6.

ka gũm me, he gathered. 76-4.

-be, -bīn, -bīc, to swim.<sup>118</sup>

nō hin na' be, swim (plu. imp.). 111-2. (Pl. 36, fig. 9.)

nī bī ne, I swam. 118-17.

na nō' bīc, swim across. 96-11.

tũm mīc, swim. 118-16.

-bīl<sup>ε</sup>, -bũl, -bũL, to fall, to rain (plural object).<sup>119</sup>

te t bīl<sup>ε</sup>, it rained. 81-1. (Pl. 36, fig. 13.)

ya<sup>ε</sup> ga bīl<sup>ε</sup>, they threw over. 149-8.

kw na s'is bīl<sup>ε</sup>, he sprinkled around him. 80-6.

cōñk tũt bũl, good it rains. (Pl. 36, fig. 12.)

ce nan t bũL, come to me again. 143-8.

-bũL, to handle flour (?).

ta te'ũm mũL, cook mush (sing. imp.). 163-14. (Pl. 6, fig. 8; pl. 37, fig. 5.)

ta te'õ' bũL, cook mush (plu. imp.). 123-13. (Pl. 24, fig. 1; pl. 37, fig. 6.)

-bũL, to hang up.

te't tel bũL, he hung it up. 79-13. (Pl. 37, fig. 2.)

tũc bũL, I will hang up. 115-6. (Pl. 37, fig. 3.)

te' tel bũL kwañ, he had hung up. 176-3. (Pl. 27, fig. 8.)

<sup>118</sup> Hupa -me, -men, III, 240.

<sup>119</sup> Hupa -meL, -mil, -mil, III, 240.

**-bûn, to be small ( ? ).**

dō bûn nē kwa nāñ, were small. 95-6.

ya<sup>ε</sup> dō mûñ, they became small. 107-12.

**-bûñ<sup>ε</sup>, to be full.<sup>120</sup>**

dē mûñ<sup>ε</sup> (din bûñ<sup>ε</sup>), it was full. 129-12. (Pl. 37, fig. 1; pl. 6, fig. 6.)

L te mûn<sup>ε</sup>, were full. 82-14.

dō te bûn ne, is not full. 149-6.

tes dûl bûñ, we filled. 182-2.

**-da, -dai, to sit, to remain.<sup>121</sup>**

sûn da, you stay (sing. imp.). 79-7. (Pl. 37, fig. 7.)

bī<sup>ε</sup> sta, he was sitting in. 132-3. (Pl. 6, fig. 7.)

sī dai, I sit. 140-7.

te'n nes dai, he sat down. 161-10. (Pl. 37, fig. 8.)

**-dai, to be exhausted ( ? ).**

dō teō<sup>ε</sup> dai, he didn't give out. 126-12.

**-dac, to travel.<sup>122</sup>**

te'e na gût dac, he came up again. 149-13. (Pl. 10, fig. 6; pl. 37, fig. 10.)

yaL dac bûñ, you must jump up. 82-16.

**-dac, to dance.**

nûc dac, I will dance. 103-9. (Pl. 37, fig. 9.)

te' gûn dac kwañ, he had danced. (Pl. 37, fig. 11.)

**-dele<sup>ε</sup>, -dûL, to go (dual only).<sup>123</sup>**

te'n nûn del<sup>ε</sup>, they came up. 153-6. (Pl. 37, fig. 13.)

ka sī del<sup>ε</sup>, we came up. 141-2. (Pl. 1, fig. 7; pl. 37, fig. 12.)

te't tes dē le, they went on. 108-12. (Pl. 38, fig. 1.)

bē dûL, let us climb. (Pl. 23, fig. 13.)

tī dûL, let us go. 141-6. (Pl. 38, fig. 2.)

**-dele<sup>ε</sup>, -deL, -dûl, to handle objects (plural).**

de t gûl del<sup>ε</sup> kwān, had put in the fire. 131-7.

da nōL dēL kwāñ, he had put on a frame. 135-4.

ta ya iL dûl, she put in water. 143-4.

**-deg, -de<sup>ε</sup>, to win.**

na<sup>ε</sup> te'ûs deg, he won back. 147-1.

na<sup>ε</sup> te'ûs de<sup>ε</sup>, he won back. 146-14.

kō wān te' gûl de<sup>ε</sup>, from him he won. 146-8.

<sup>120</sup> Hupa -men, -miñ, III, 241.

<sup>121</sup> III, 254.

<sup>122</sup> Cf. -dauw, III, 255.

<sup>123</sup> III, 256.

**-deg, -de', to wash.**

te' na te'ús dēg, he washed it. 129-2.

te' na te'gūL de', she washed them. 153-5. (Pl. 38, fig. 3.)

te' na te'ús de, he washed it. 168-16.

**-dīñ<sup>e</sup>, to shine.<sup>124</sup>**tcin ús dīñ<sup>e</sup>, shone. 85-9.

na te' nún dīn būñ, it will be light. 140-4.

cún dī ne, the sun shines. 182-13. (Pl. 38, fig. 4.)

**-dō<sup>e</sup>, to be none.<sup>125</sup>**n dō<sup>e</sup> būñ, it will not be. 80-13. (Pl. 38, fig. 5.)nát dō<sup>e</sup>, all gone. 99-11.n dō<sup>e</sup> ye, there is none. 109-1. (Pl. 38, fig. 6.)**-dûl, -dûL, relating to the movement of fish in numbers.**

nún dûl, they came. 169-8.

tún dûL, come. 120-17.

tún dûL būñ, must come. 120-18.

**-dûL, to move something up and down (?).**

na nail dûL, he moved (a basket) up and down. 150-2.

**-dûn, to die.**ne<sup>e</sup> ô dûn, you will die. 177-4. (Pl. 25, fig. 2.)

ce dûn ne, I died. 128-4. (Pl. 38, fig. 7.)

ce e dûn tê le, I will die. 177-5. (Pl. 38, fig. 9.)

**-dûts, -dûs, to twist.**

gût dûts, is twisted. 114-1.

**-dûk, to crack (acorns).**

te'úc dûk e, I crack them. 140-4.

te'ûL tûk, crack them. 138-2.

te'ûL tûk būñ, you must crack. 136-1.

**-djiñ, to be day.**

ô djiñ kwie, about day probably. 134-1.

**-djöl<sup>e</sup>, to roll.**taş nas djöl<sup>e</sup>, it rolled out of the fire. 147-9. (Pl. 10, fig. 1; pl. 41, fig. 3.)**-tal<sup>e</sup>, tãL, to step or move the foot.<sup>126</sup>**te' te' gún tal<sup>e</sup>, he stepped in water. (Pl. 38, fig. 10.)

nō dún tãL, you step. 82-1.

te't te' gūL tãL, he dragged his foot along. 90-4.

<sup>124</sup> III, 260.<sup>125</sup> Cf. dō, not, the negative prefix.<sup>126</sup> III, 261.

- tañ*, -*tīc*, to handle a large object.<sup>127</sup>  
*te'en tañ*, he took out (spear-shaft). 170-14.  
*nō wān tic būñ*, give us (fish-spear). 128-13.
- tan*, to eat (third person only).<sup>128</sup>  
*te't tan ūñ gī*, he is eating. 174-1. (Pl. 38, fig. 11.)
- te*, to look for anything.<sup>129</sup>  
*ka kw nō' te*, look for him. 160-1. (Pl. 39, fig. 1.)  
*ka ūn tē*, she looked. 114-9.  
*ka ya<sup>e</sup> n tē*, they looked. 114-8.
- tel*, -*teL*, to be wide or flat.  
*n tel*, flat. 180-14.  
*kwūn teL tē lit*, it was becoming flat. 107-3. (Pl. 27, fig. 2.)  
*gūn teL*, was flat. 106-11.  
*te'ūc teL kwān*, he had spread. 115-11.
- teg*, to teach (?).<sup>130</sup>  
*be gūn teg*, he taught. 122-11. (Pl. 39, fig. 3.)  
*ke gūt t'eg*, he taught them. 122-1.
- tīn*, -*tūc*, relating to movement or position of an animal alive or dead, with transitive or intransitive meaning.<sup>131</sup>  
*nes tiñ*, it is lying. 182-3. (Pl. 39, fig. 5; pl. 10, fig. 7.)  
*nūn s'ūs tiñ*, he picked him up. 179-14. (Pl. 39, fig. 7.)  
*tañ nas tiñ*, she took out again. 129-2. (Pl. 39, fig. 8.)  
*cī sī tī ne*, I lay. 175-16. (Pl. 39, fig. 9.)  
*nō nīL tī ne*, he put it. (Pl. 39, fig. 10.)  
*te' nes tiñ*, he lay down. 175-11. (Pl. 5, fig. 2.)  
*ūL tūc*, give it. 179-2.  
*na nūn tūc*, lie down again. 100-1.  
*dō c gaL tūc*, you did not give it to me. 179-5.
- tō<sup>e</sup>*, relating to position or movement of water.<sup>132</sup>  
*nō te'ūn tō<sup>e</sup>*, water came so far. 75-1. (Pl. 7, fig. 6.)
- tōñ<sup>e</sup>*, to jump or to cause to jump.<sup>133</sup>  
*na te'ōL tōñ<sup>e</sup>*, he snapped it. (Pl. 39, fig. 11.)
- tūñ*, -*te*, to be cold.  
*ūs tūñ*, it was cold. 96-1.  
*ūs tūn e*, it is cold. (Pl. 40, fig. 3.)  
*kō wūn tūn*, it is cold. 121-10.  
*ūc te lī<sup>e</sup> ūñ*, I might be cold(?). 133-8.

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<sup>127</sup> III, 262.

<sup>128</sup> III, 263.

<sup>129</sup> III, 264.

<sup>130</sup> Cf. Hupa -*tū*, -*te*, -*tel*, to sing, in a ceremony. III, 267.

<sup>131</sup> III, 264-6.

<sup>132</sup> Cf. *tō*, "water," p. 20, and III, 267.

<sup>133</sup> III, 267.

- tûk, to burst.  
gûL tûk, it burst. 182-5. (Pl. 8, fig. 1; pl. 40, fig. 1.)
- tûk, to kill.<sup>134</sup>  
s dji' ôL tûk, kill me (plu.) "my heart(?)" 151-8. (Pl. 40, fig. 4.)
- t'a, to use a sling.  
na kw nic t'a kwic, I am going to sling at him. 122-14. (Pl. 40, fig. 9.)
- t'an, relating to wax-like substances.<sup>135</sup>  
k'we ya<sup>ε</sup> heL t'añ, they stuck on. 170-6.
- t'ats, -t'as, to cut.<sup>136</sup>  
yis t'ats, he cut it. 162-10.  
ta gât t'ats, he butchered. 175-4. (Pl. 24, fig. 2.)  
te'n ne sîL t'ats, I cut it up. 138-15. (Pl. 40, fig. 12.)  
te'n nôL t'as, cut them (plu. imp.). 166-15. (Pl. 40, fig. 11.)
- t'ag, -t'a', to fly.<sup>136a</sup>  
nûn t'ag, it flew. 182-11. (Pl. 40, fig. 6.)  
te'ic t'a t'ê le, I will feather. 156-5. (Pl. 7, fig. 9; pl. 40, fig. 5.)
- t'e, to have an appearance or disposition.<sup>137</sup>  
ac t'ê, I am. 159-10.  
a nô' t'e, you are. 139-1.  
an dât t'ê ye, we are. 132-5.  
an t'ê, it is. 100-10.  
kûn t'ê, she is like. 181-11.
- t'e, to cook.  
tôL t'e, you cook (plu. imp.). 167-16. (Pl. 40, fig. 10.)  
ûs t'e ye', it is cooked. 163-15. (Pl. 40, fig. 8.)
- t'iñ, to do.<sup>138</sup>  
dô kwa t'iñ, he never did that. 130-14. (Pl. 9, fig. 4.)  
kwac t'iñ, I did that. 147-5.
- t'ôt, to suck.<sup>139</sup>  
k'ûL t'ôt, he sucked it. 159-2. (Pl. 40, fig. 2.)  
te'il t'ôt, (make) it suck. 115-3.
- t'ôg, -t'ô', to sting.  
na te'eL t'ô, she stung. 156-14.  
nûn yîL t'ô gât, she stung them when. 156-15. (Pl. 26, fig. 3.)  
te't dûL t'ô' kwûc, something stung I guess. 114-14.

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<sup>134</sup> Cf. -tûk, to burst.<sup>135</sup> III, 268.<sup>136</sup> III, 268.<sup>136a</sup> Cf. t'a<sup>ε</sup>, feathers, and Hupa -tau, III, 268.<sup>137</sup> III, 268.<sup>138</sup> III, 269.<sup>139</sup> Cf. Hupa -tôt, to drink, to suck. III, 267.

-t'ók', to flake flint.

te'ús t'ók', he flaked. 156-7. (Pl. 11, fig. 8.)

-tsai, -sai, to be dry.<sup>140</sup>

ól sai dja<sup>é</sup>, let them dry. 136-3.

gúl tsai, it was dry. 123-4. (Pl. 34, fig. 8.)

te'ús sai, she dried it. 181-4.

-tsaŋ, -sañ, to find, to see.<sup>141</sup>

te'úl tsaŋ, he found. 97-4. (Pl. 34, fig. 6.)

dō ha<sup>é</sup> te'úl tsa ne, he did not find. (Pl. 34, fig. 7.)

úl sañ, do you see? 141-2.

dō gúl sañ, it was never found. 179-6. (Pl. 34, fig. 9.)

-tsañ, to hear.

ōc tsañ, I heard. 182-8.

ya<sup>é</sup> teō súl sañ, they listened. 178-1.

-tsō, to be blue.

dúl tsō, blue. 113-13. (Pl. 35, fig. 2.)

-tsût, to know.

dō ō dül tsût de, we didn't know him. 119-8.

-ts'eg, -ts'e', to eat soup.

k gúl ts'eg, he ate soup. (Pl. 41, fig. 1.)

-ts'eg, -ts'e', -s'ûL (-ts'î<sup>é</sup>), to hear.

na ya<sup>é</sup> dī ts'eg, they heard again. 106-16.

ka nəl ts'î<sup>é</sup>, they heard again. 106-14.

-tcāi, -tea, to bury, to cook by burying.<sup>142</sup>

te' gūn tcāi, he buried it. 129-2.

ka<sup>é</sup> dūt tea<sup>é</sup>, well, let us cook. 149-7. (Pl. 25, fig. 11.)

be te gūL ca<sup>é</sup>, she put in sand. 152-8.

-teą, to eat in company.<sup>143</sup>

na dül tcañ kwañ, he had eaten. (Pl. 41, fig. 4.)

na dīc teą ne, I ate. 171-9. (Pl. 41, fig. 6.)

na dīc tea, let me eat a meal. (Pl. 24, fig. 12.)

-teąñ, to defecate.<sup>144</sup>

ts' gūn teąñ, he defecated. 142-7.

<sup>140</sup> III, 270.

<sup>141</sup> III, 270.

<sup>142</sup> Hupa -tcwai, -tcwa, III, 275.

<sup>143</sup> Hupa, -tcwan, -tcwūñ, III, 275.

<sup>144</sup> Cf. Hupa -tcwen, -tcwiñ, III, 278.

-tean, -teic, to leave one.

ō teō nō' teic būñ, you may leave it. 118-1.

dō teōs teic tē le, I will not leave. 139-18.

ō tsōñ gūt tcañ, they left them. 178-11.

ō te'ō nī tea ne, I left him. 117-17. (Pl. 41, fig. 10.)

-teat, -tea, to be sick.<sup>145</sup>

t gūn tea de, is sick. 140-5.

đūn tea būñ, will be sick. 79-5.

-teat, -teat, to shout.

gūL teat, they shouted. 165-9. (Pl. 25, fig. 10.)

ūc teat, I will shout. 164-12.

ūL teat, shout. 164-13.

gūL teat, they shouted. 114-3.

-teag, -tea', to be large.<sup>146</sup>

gūn teag kwān, had become large. 116-4.

ō tea', let be large. 93-7.

wō<sup>e</sup> n tea', teeth large. 86-5. (Pl. 4, fig. 2.)

-tee<sup>e</sup>, -ce<sup>e</sup>, to be bad.<sup>147</sup>

n tee<sup>e</sup> e, bad. 140-18.

dō ha<sup>e</sup> n tee<sup>e</sup> mūn dja<sup>e</sup>, let it not be bad. 171-10.

-teel<sup>e</sup> (?), -tcūL (-tceL), to split.<sup>148</sup>

dje<sup>e</sup> gūL teel, she split open. 129-3. (Pl. 24, fig. 5.)

gūL tcūL, were opened. 125-6.

dje<sup>e</sup> kūL tcūL, split it. 80-9.

dje<sup>e</sup> gūL teel, he split open. 129-3.

-tee<sup>e</sup>, -tee', (-ce'), to cry.<sup>149</sup>

te' gūn tee ge, he cried. 133-1. (Pl. 41, fig. 11.)

ūc teī ge, I cried. 140-6. (Pl. 8, fig. 6.)

ūn tee' būñ, you may cry. 115-7.

dō ha<sup>e</sup> kw ūn ce', do not for it cry. 117-8.

-teī, to blow, said of the wind.<sup>150</sup>

wa nūn teī būñ, it will blow through. 80-14. (Pl. 23, fig. 4.)

-teī<sup>e</sup>, to be red, to dawn.

te' t te gūs teī<sup>e</sup>, it was about dawn. (Pl. 8, fig. 2.)

te' gūs teī<sup>e</sup>, it was red. 148-5.

<sup>145</sup> III, 274.

<sup>146</sup> Cf. Hupa -kya ō, -kya, III, 201.

<sup>147</sup> Cf. te'ūñ gūn tee<sup>e</sup>, he was angry. (Pl. 41, fig. 13.)

<sup>148</sup> Cf. Hupa -kil, -kil, III, 282.

<sup>149</sup> Hupa -tewū, -tewe, III, 280.

<sup>150</sup> Hupa -tee, III, 274.

**-tcin, -tcī, -tcīL, to make.**<sup>151</sup>

ûL tcī, make it. 79-8. (Pl. 41, fig. 8.)

tc' gûl tcīL, it is growing. (Pl. 41, fig. 9.)

kw na<sup>ε</sup> ûL tcī, make him live. (Pl. 10, fig. 2.)

tc'ôL tcī dja<sup>ε</sup>, let him make. 140-2.

gûl tcīñ, they made. 178-3.

ya<sup>ε</sup> heL tcīn, they made. 170-4.

tc'is tein, he made. 77-6.

gic tcīL, I place along. 88-1.

**-tcōs, relating to flat, flexible objects, such as skins.**<sup>152</sup>

naL tcōs, she put. 180-7.

c gal tcōs, give me. 97-13.

**-tcōt, -tcōl, to steal.**

k't teL tcōt, he stole. 118-11. (Pl. 9, fig. 6.)

cī te sīL tcōl<sup>ε</sup>, I stole. (Pl. 42, fig. 1.)

**-tcōk (-cūk), to arrange in a row, to string.**<sup>153</sup>

tc' gûn tcōk kwān, he had filled. 159-6.

tc' gûn cūk kwān, he had strung. 135-1.

**-tcûl, -tcûL, to be wet or damp.**

na gûL tcûL ya<sup>ε</sup> nī, he got wet they say. 126-16. (Pl. 42, fig. 3.)

naL tcûL út, it was wet because. 126-11.

**-tcûn, -tcic, to smell.**

ye gûn tcûn, he smelled it. 114-4.

gûL cûn ne, it smells. 109-6.

sûL tcic, you smell. 141-5.

**-tcût, -tcī, to catch hold of.**<sup>154</sup>

yīL tcût, caught it. 114-4.

gûl tcût, he caught them. (Pl. 42, fig. 2.)

tc'eL tcī<sup>ε</sup> ya<sup>ε</sup> nī, he caught it they say. 142-5. (Pl. 42, fig. 5.)

naL tee būñ, you must catch. 116-16.

**-tcût', to feed.**<sup>155</sup>

kū wa gût tcût', they fed her. 151-15. (Pl. 36, fig. 4.)

**-tcût, to stretch.**

nûL tcût, you stretch. 78-15.

tc'eL tcût, stretch it out. 77-13. (Pl. 42, fig. 4.)

<sup>151</sup> Hupa -tewen, -tewiñ, -tewe, III, 276.

<sup>152</sup> Hupa -kyōs, III, 284.

<sup>153</sup> Hupa -tewōk, III, 279.

<sup>154</sup> Hupa, -kit, III, 283.

<sup>155</sup> Hupa -kit, III, 283.

- tc'añ*, -*tc'ac*, to shoot with a bow.  
*s'ús tc'añ*, he shot it. (Pl. 41, fig. 7.)  
*gút tc'añ<sup>ε</sup>*, he shot. 110-13. (Pl. 25, fig. 9.)  
*ún tc'ac*, you shoot. 178-1.
- ga*, -*gai*, to walk (third person only).<sup>156</sup>  
*na ga kwān*, he had walked. 154-12. (Pl. 42, fig. 6.)  
*na gai bün dja<sup>ε</sup>*, shall travel. 99-13.
- gal<sup>ε</sup>*, -*gal*, -*gaL*, to throw.<sup>157</sup>  
*nō tel gal<sup>ε</sup>*, she threw it. 181-4.  
*ka tc'el gal<sup>ε</sup>*, he tipped it. 154-3.  
*k'e gūL gal<sup>ε</sup>*, she threw away. (Pl. 42, fig. 11.)  
*na<sup>ε</sup> del gəl kwān*, he had poured. 125-13. (Pl. 42, fig. 12.)  
*ya<sup>ε</sup> gūL gal<sup>ε</sup>*, he threw up. 142-3. (Pl. 23, fig. 1.)  
*na nōL gaL*, put across. 153-18.  
*nō<sup>ε</sup> cūL gaL*, throw me. 133-4. (Pl. 25, fig. 1.)
- gal<sup>ε</sup>*, -*gəl*, -*gaL*, to drop, to beat.  
*nañ gūL gal<sup>ε</sup>*, he beat it. 177-6.  
*nūn ic gəl*, let me chop. (Pl. 42, fig. 7.)  
*nūn sūL gal*, you hit. 129-10. (Pl. 42, fig. 8.)  
*naL gəl*, hit again. 177-7.
- gan<sup>ε</sup>*, to be mouldy.  
*tc't gañ<sup>ε</sup>*, it is mouldy. 167-16. (Pl. 42, fig. 9.)
- gan*, -*gaL*, to kill (with plural object).  
*úc gañ*, I kill! 96-10.  
*ō' gañ*, kill. 113-6.  
*tc' gūñ ga ne*, he was killed. (Pl. 42, fig. 10.)  
*tc'e nō' nūñ a ne*, he killed us. (Pl. 25, fig. 4.)  
*nai gī gaL būñ*, must kill. 173-2.
- gac*, to chew.  
*tc'ō gac*, let them chew it. (Pl. 5, fig. 6.)  
*yō gac*, let him chew them. 110-7.
- gat*, to sew.  
*tc'e naiL gat de*, he sewed up. 122-13. (Pl. 44, fig. 5.)  
*nō na<sup>ε</sup>ñ ñat*, he untied it. 122-15. (Pl. 44, fig. 6.)  
*na he gat*, he loosened. 122-14.  
*na hūñ a būñ*, you must untie it. 78-15.  
*na hūñ at*, you untie. 123-7.
- gats*, -*gas*, to scrape.<sup>158</sup>  
*ō' gas*, scrape. 113-7.  
*te' ge gats*, she scraped them. 153-5.

<sup>156</sup> Hupa -*wai*, -*wa*, III, 221.

<sup>157</sup> Hupa -*waL*, -*wūl*, -*wūL*, III, 222.

<sup>158</sup> Cf. Hupa -*was*, III, 224.

-ge<sup>ε</sup>, to whip.

ōl ge<sup>ε</sup>, whipped? 102-9.

-gel<sup>ε</sup>, -geL, -gûl, relating to the passing of night.<sup>159</sup>

gûl ge le, it was getting late. (Pl. 43, fig. 1.)

tea kwōl gel<sup>ε</sup>, very dark. 127-3. (Pl. 2, fig. 4.)

ûl gûl, evening. 82-9.

-get, to thunder.

dō nai t get, it didn't thunder. 74-4.

-get, -ge, to spear.<sup>160</sup>

wai te' gûn get, he struck over. 164-2.

ya<sup>ε</sup> te' ōn ge, they speared. 166-16.

-gets, -gûc, -ge<sup>ε</sup>, to look, to see.

n hōc t ge<sup>ε</sup>, let me see you. 142-6. (Pl. 43, fig. 2.)

te'ō na gût gûc, he looked back. 87-13. (Pl. 43, fig. 4.)

te'on t gets<sup>ε</sup>, he looked at them. (Pl. 43, fig. 5.)

ō' t gûc, look at them. 100-9. (Pl. 25, fig. 13.)

ōn t gûc. look. 95-12.

-gîñ, to kill.<sup>161</sup>

sel giñ ya<sup>ε</sup> nî, he killed they say. (Pl. 43, fig. 10.)

-gîn, -gûc, -ge<sup>ε</sup>, -geL, to carry on the back.<sup>162</sup>

te' nō dâg ge<sup>ε</sup>, we will put in water. 139-9. (Pl. 7, fig. 5; pl. 24, fig. 3; pl. 43, fig. 6.)

te'n nûg gûc, she brings in. 180-9. (Pl. 43, fig. 7.)

nî gî ne<sup>ε</sup>, I bring. 138-14. (Pl. 43, fig. 8.)

te'n nûñ ñîñ, he brought it. 135-11. (Pl. 43, fig. 9.)

da n dic ge<sup>ε</sup>, I will pick you up. 141-4. (Pl. 7, fig. 3.)

tûc ge<sup>ε</sup>, I will carry. 135-4. (Pl. 8, fig. 4.)

te't tes gîn, he carried. 101-9.

gûc geL, I will carry. 141-1.

gûñ eL, you carry. 137-13.

-git, -gûc, to be afraid.<sup>163</sup>

be nē sîL git de, I am getting afraid. 130-15. (Pl. 6, fig. 2; pl. 44, fig. 3.)

wûn ye nel git, they were afraid of it. 154-6.

wûn tōL gûc ūñ, might be frightened. 99-15.

-gîts, to tie.

Le gîts<sup>ε</sup>, he tied together.

teûm meLyîts, a stick he tied. 169-5. (Pl. 30, fig. 12.)

<sup>159</sup> Hupa -weL, -wil, -wîL, III, 224.

<sup>160</sup> Cf. bel get, spear head. 133-8.

<sup>161</sup> Hupa -wen, -wiñ, -we, III, 225.

<sup>162</sup> Hupa -wen, -wiñ, -wûw, -we, III, 226.

<sup>163</sup> III, 280.

- gûts, to bite.  
be te gûts, he bit it. 109-7.
- kai, to be alive.  
na kai, alive. 114-2.
- kal, -kaL, to break.  
tas kal, break. 81-11.  
tûc kaL, I will break. 110-1.
- kan, -ka, -kai, -kaL, relating to the passing of the night.<sup>164</sup>  
n hes ka nî, we spent the night. 167-7. (Pl. 44, fig. 10.)  
n he ôL ka kwic, we will spend the night probably. 105-3. (Pl. 27, fig. 10.)  
dō yîL kai, not day. 178-12.  
yî gûl kaL, it was daylight. 105-5.  
yî gûn ka lit, it got light when. 114-5.
- kañ, -kac, -ka, to move a vessel containing liquid.<sup>165</sup>  
wa<sup>ε</sup> ûñ kañ, she gave him. 129-4. (Pl. 23, fig. 3.)  
kō wa kac, give him (a basket of food). (Pl. 45, fig. 1.)  
Used of fishing with a net, probably the same stem.  
Cf. ô' kan, net it. 168-14.  
ts' gûn kan, he had caught. 120-1.  
dō ya<sup>ε</sup> kac, they didn't net it. 168-14.  
kwa te'gûs t ka, for him they dipped. 155-7.
- kañ, -kûn, to be sweet.<sup>166</sup>  
L kûn, is sweet. 166-11.  
tûl ka mûn dja<sup>ε</sup>, sweet will be. 91-5.
- ke<sup>ε</sup>, to finish.<sup>167</sup>  
be nîL ke<sup>ε</sup>, I have finished. 82-15. (Pl. 23, fig. 12.)  
bel ke<sup>ε</sup>, he finished. 172-12. (Pl. 45, fig. 3.)  
be iL ke get, he finished when. 149-15.  
be gec ke ge, I am finishing. 76-7.
- ke<sup>ε</sup>, to bathe (plural only).  
na' ke<sup>ε</sup>, bathe. 172-14. (Pl. 45, fig. 2.)
- ket, to trade.<sup>168</sup>  
Le te'ôñ ket, they traded. 172-6.
- kût, to ask, to question.<sup>169</sup>  
dō ha<sup>ε</sup> cō dōL kût, do not ask me. 166-8. (Pl. 45, fig. 8.)

<sup>164</sup> Hupa -xa, -xal, -xal, -xûñ, III, 250.<sup>165</sup> Hupa -xan, -xûñ, -xauw, III, 250.<sup>166</sup> Hupa -xan, -xûn, III, 250.<sup>167</sup> Hupa -xe, -xû, III, 252.<sup>168</sup> Cf. Hupa -xait, -xai, to buy, III, 251.<sup>169</sup> Hupa -xût, -xûl, III, 252.

-kût, to travel (plural only).

te'n nûl kût, they came. 154-12. (Pl. 45, fig. 6.)

dô ha<sup>e</sup> te't teL kût, they did not go. 167-17. (Pl. 45, fig. 7.)

-kût, to swallow.

te' gûl kût, he swallowed. 109-7. (Pl. 1, fig. 3; pl. 45, fig. 5.)

nôc kût, may I swallow you. 181-14.

kw sal kût, his mouth he put in. 157-15.

-kût, to fall.

wal kût, fell through. 158-1.

na te'ûñ kût, it fell. 83-4.

-kût, -kûs, to float.

yal kût, floated. 143-7.

teL kût, were washed away. 71-7.

nô nûk kûs, it floated about. 127-8.

-k'ag, -k'a', to be fat.<sup>170</sup>

l k'a' bûn dja<sup>e</sup>, let it be fat. 85-14. (Pl. 26, fig. 10.)

l k'ag, is fat. 83-15.

-k'ai, to hit (with an arrow).<sup>171</sup>

nûn nel k'ai, he hit. 156-14. (Pl. 45, fig. 9.)

-k'an, to build a fire.<sup>172</sup>

ôL k'añ, make a fire. 103-7. (Pl. 3, fig. 7.)

gûl k'añ, there was a fire. 162-13. (Pl. 45, fig. 10.)

ûL k'añ, make a fire. 127-11. (Pl. 45, fig. 11.)

-k'ats, -k'as, -k'aL, relating to position and movement of long objects only.

te' tōL k'as dja<sup>e</sup>, let him drop. 129-8. (Pl. 10, fig. 4.)

ya<sup>e</sup> gûL k'as, he threw up. 154-5.

wan t gûL k'ac, she threw up. 144-7.

nô wil k'as, fell. 152-1.

nûn ya<sup>e</sup>L k'as, they pushed them in. 154-14.

te' gûL k'aL, it fell. 154-10.

te'ûL k'aL, it struck. 154-11.

-k'e<sup>e</sup>, to brace oneself in getting up from a sitting or lying position.<sup>173</sup>

nûn s'ûs dûk k'e<sup>e</sup>, he got up. 98-5. (Pl. 23, fig. 10.)

nûn ûn dûk k'e<sup>e</sup>, get up. 100-3. (Pl. 44, fig. 8.)

-k'ôts, to be sour, to be bitter.

dûñ k'ôts, sour. 139-11.

dô dûñ k'ô teit, it is not salt because. 87-10.

<sup>170</sup> Hupa -kau, -ka, III, 202.

<sup>171</sup> III, 281.

<sup>172</sup> Cf. Hupa, wil kan nei, a fire is burning. I, 151, l. 4.

<sup>173</sup> Cf. Hupa -kai, -ka, III, 280.

-k'ûc, to lighten.

dō te't tûL k'ûc, it did not lighten. 74-6. (Pl. 44, fig. 9.)

-k'ûñ<sup>ε</sup>, to twist.<sup>174</sup>

ō'k'ûñ<sup>ε</sup>, twist. 163-12.

na te' k'ûñ<sup>ε</sup>, it is writhing. 177-8.

-k'ûts, to push in.

wəL k'ûts, put in. 105-14.

nai neL k'ûts kwən, had stuck in. 158-4.

tət ūs k'ûts, he pulled it out. 127-9.

-qal, -qal, to walk (third person only).<sup>175</sup>

te' qal ya<sup>ε</sup> nī, he was walking they say. 93-12. (Pl. 2, fig. 5;  
pl. 44, fig. 1.)

-qōt, to penetrate with a point, to spear.<sup>176</sup>

te' ūs qōt, he speared. 128-13. (Pl. 8, fig. 8.)

ûñ qōt, spear it. 128-12. (Pl. 44, fig. 7.)

ûc qōt, I will spear it. 164-2.

#### SUFFIXES

The source of the information upon which the statement is based, the degree of probability, and the time and stage of completion are indicated by suffixes which stand after the stem of the verb. In some cases it is a matter of doubt whether these should be treated as separate words or as word parts merely. In most cases they do not seem to carry definite meaning when disjointed from the verb. Several of them are affixed to nouns and other parts of speech.

#### *Source of Information*

-e, -ē are used of facts directly observed or in which the speaker is concerned and has personal knowledge. The forms with -ē seem to be more emphatic.

be ne sīL git dī, I am becoming afraid. 130-15. (Pl. 6, fig. 2.)

be nīL ke<sup>ε</sup>e, I have finished. 82-15. (Pl. 23, fig. 12.)

sī yī ne, I stand. (Pl. 25, fig. 7.)

ye s<sup>ε</sup>a ne, house stands. (Pl. 28, fig. 6.)

ûc ga nē, I kill. 138-4.

na ūñ gūL <sup>ε</sup>a<sup>ε</sup> ē, he put across. 134-5.

nas dūL līn nē, we have got back. 95-12. (Pl. 3, fig. 6.)

te' ōñ gī la nē, I went after. 136-10.

<sup>174</sup> Cf. k'ûñ<sup>ε</sup>, withes. 163-12.

<sup>175</sup> III, 284.

<sup>176</sup> III, 285.

-*ûñ gī* states the fact as undoubtedly true and directly observed but seems to indicate a degree of surprise.

te' Loi *ûñ gī*, she is making a basket. (Pl. 2, fig. 7.)

niñ yañ kwañ *ûñ gī*, it has cleared off. 168-1. (Pl. 26, fig. 1.)

te' sin *ûñ gī*, he is standing. (Pl. 26, fig. 2.)

te't tan<sup>e</sup> *ûñ gī*, he is eating. 174-1. (Pl. 38, fig. 11.)

ya<sup>e</sup> nī, te'in, are in form independent verbs. The former is the regular quotative used in myths and tales and is quite indefinite as to its subject.

te' qal ya<sup>e</sup> nī, he was walking they say. 93-12. (Pl. 2, fig. 5.)

te' gūñ al<sup>e</sup> ya<sup>e</sup> nī, he chewed it they say. 109-7. (Pl. 26, fig. 4.)

kwai<sup>e</sup> la' ya<sup>e</sup> nī, he did it they say. (Pl. 31, fig. 3.)

na gūL teūL ya<sup>e</sup> nī, he got wet they say. 126-16. (Pl. 42, fig. 3.)

sēl giñ ya<sup>e</sup> nī, he killed they say. (Pl. 43, fig. 10.)

-*kwañ* refers to acts which while not directly observed, are inferred with certainty from the nature of the evidences observed.

ka gūL<sup>e</sup> qal kwañ, they had sprung up along. 87-13. (Pl. 27, fig. 7.)

te't teL būL kwañ, he had hung up. 176-3. (Pl. 27, fig. 8.)

te' gūn dac kwañ, he had danced. (Pl. 37, fig. 11.)

na ga kwañ, he had walked. 154-12. (Pl. 42, fig. 6.)

na<sup>e</sup> deL gaL kwañ, he had poured. 125-13. (Pl. 42, fig. 12.)

-*kwa nañ* seems to be used with suffix -e, -ē and indicates that the evidence but not the act is directly observed.

et cī nē kwa nañ, were black. 94-7.

et ga ye kwa nañ, were getting white. 94-5.

ta te'ūL ate ē kwa nañ, turtles have come out of water. 95-8.

te'teL teōt ye kwa nañ, someone had stolen. 138-15.

-*kwûc*, -*kwic*, is used with the first person only, and denotes conjecture as to past, present, or future happenings.

añ kwûc, it cries I guess. 115-4.

na hûc ða kwûc, I will go back. 137-10.

na kw nîc t'a kwic, I am going to sling at him. 122-14. (Pl. 40, fig. 9.)

n he ôL ka kwic, we will spend the night probably. 105-3. (Pl. 27, fig. 10.)

kwûn s'ûs nōL ke<sup>e</sup> kwûc, might track us. 142-11.

-*kwûl luc*. This suffix seems to be related to the last in both form and meaning.

ûñ gī kwûl lûc, is I think. 170-13.

ûs t'e kwûl lûc ûñ, it is done I guess. 169-1.

### Modal

-*bûñ* predicts the act or happening with more or less determination on the part of the speaker that it shall come to pass.

- wa nûn teĩ bûñ, it will blow through. 80-14. (Pl. 23, fig. 4.)  
 nai ʼai bûñ, it will be across. 85-8. (Pl. 23, fig. 8.)  
 kạl ʼai bûñ, it will grow up. 84-11. (Pl. 26, fig. 9.)  
 nõ ʼil bûñ, you must stay. 105-2. (Pl. 28, fig. 8.)  
 na cõl na bûñ, you must doctor me. 166-10. (Pl. 33, fig. 4.)

-dja<sup>e</sup> is used of future predictions in which determination or desire on the part of the speaker that the events shall come to pass is usually evident. For this reason it occurs more frequently in the first person.

- te' tõl k'as dja<sup>e</sup>, let him drop. 129-8. (Pl. 10, fig. 4.)  
 te'õl teĩ dja<sup>e</sup>, let him make. 140-2. (Pl. 27, fig. 6.)  
 kúc na<sup>e</sup> dja<sup>e</sup>, I want to live. 171-7. (Pl. 27, fig. 5.)  
 L k'a' bûn dja<sup>e</sup>, let it be fat. 85-14. (Pl. 26, fig. 10.)  
 a dûl le' dja<sup>e</sup>, we will do it. 83-2.  
 õc t ge<sup>e</sup> dja<sup>e</sup>, I will look at. 149-13.

-teL, -tẽ le. The simple future prediction without an implication of duty, necessity, or intention is expressed by teL; te le is used when the information is on the speaker's authority.

- te'ic t'a tẽ le, I will feather arrows. 156-5. (Pl. 7, fig. 9.)  
 nõc iñ tẽ le, I will look. 165-4. (Pl. 27, fig. 3.)  
 be nac ʼai<sup>e</sup> tẽ le, I will try again. 139-1. (Pl. 27, fig. 4.)  
 gûl lõs tẽ le, he will bring it. (Pl. 32, fig. 9.)  
 ce dũn tẽ le, I will die. 177-5. (Pl. 38, fig. 9.)  
 nan dûl teL, are you going home? 120-13.  
 na hõ tũn nạc teL, will you move? 140-8.  
 nõl lin teL bûñ, will flow for. 89-5.  
 õl teĩ teL, you will make. 139-10.  
 na hũn dacteL, will you go back? 137-9.  
 na hũc dạc tẽ le, I will go back. 117-18.

-ût, -hût, when, because. This suffix subordinates the verb to which it is attached either as to time or cause as the context may require. It is confined in its use to the past. The suffix usually takes over as the initial of its syllable the final consonant of the stem. An h may be the final aspiration of the preceding stem.

- õl gûl lût, it was evening when. 105-6.  
 yai nõl tĩ nût, they brought it when. 128-16.  
 ya<sup>e</sup> gûl k'a sit, he threw up when. 154-11.  
 yĩl t'õ gût, stuck him when. 156-1.  
 Lũn tes ya hût, they came together when. 148-9.  
 na nũn la gût, he jumped across when. 147-7.  
 õ dji te'us tũk ùt, he killed because. 157-7.  
 wạn nĩ le get, I swam to because. 175-5.  
 naL cũl ùt, it was wet because. 126-11.  
 nas li<sup>e</sup> nût, he was tied because. 146-5.  
 te sĩ ya hût, I went because. 118-5.

*Temporal*

-de<sup>ε</sup>, when, if. This suffix is used of events in the future, whether certain to occur or not, fixing the time of another act or event.<sup>177</sup>

- ō dji sōL tāk de<sup>ε</sup>, you kill it if. 177-5.  
 wūn kw nūk de<sup>ε</sup>, you tell about when. 176-2.  
 naL kūt de<sup>ε</sup>, you come back if. 117-18.  
 na nūL gaL de<sup>ε</sup>, when you put across. 153-11.  
 na he sūn t ya de<sup>ε</sup>, if you go back. 137-10.  
 ts'ūs qōt de<sup>ε</sup>, if he spears it. 128-9.  
 te'nūn ya de<sup>ε</sup>, if he comes. 142-11.  
 gūn gel<sup>ε</sup> de<sup>ε</sup>, night when. 97-10.  
 gūn dō<sup>ε</sup> de<sup>ε</sup>, is gone if. 140-2.  
 kō wūn tūn de<sup>ε</sup>, it is cold when. 172-15.  
 kō te' gūl 'ūts de<sup>ε</sup>, when she runs down. 153-11.

-ūñ expresses a contingency as less certain than -de<sup>ε</sup>.

- ūc te lī<sup>ε</sup> ūñ, I might be cold(?). 133-8.  
 wūn tōL gūc ūñ, might be frightened. 99-15.  
 na ōn te lē' ūñ, may come. 133-9.  
 tōt būL ūñ, it may rain. 168-6.  
 Cf. na nō te' ūL ke<sup>ε</sup> ū leñ<sup>ε</sup>, he might track us. 138-10.  
 ta nan ō da ū leñ<sup>ε</sup>, he might come again. 135-8.

-kwa<sup>ε</sup> denotes the continuance of the act until a stated time.<sup>178</sup>

- na hūc ga kwa<sup>ε</sup>, I am untying yet. 123-10.  
 te'n nūn dac kwa<sup>ε</sup>, he danced until. 130-15

-l, -L suffixed to the syllable of stem is used for acts or conditions that are continuous in time or place.

- gūn yaL, walk. 104-13.  
 t gūn nūL, it kept hooting. 179-7.  
 tee' gūl laL,<sup>179</sup> he cried along. 145-5.

-c is used of continuous or often repeated acts. It is also found in the imperative of many verbs without its meaning being clearly manifest.

- ta cac, I went. 182-17.  
 tūn yac, you go. 78-13.  
 tām mīc, swim. 118-16.

-bī<sup>ε</sup>, in. This suffix common with nouns occurs with verbs with the sense of when.

- tea kwūL gel<sup>ε</sup> bī<sup>ε</sup>, very dark in. 179-8.  
 tea kwūL gel<sup>ε</sup> bī<sup>ε</sup> ūñ<sup>ε</sup>, very dark in. 179-7.

<sup>177</sup> III, 321.

<sup>178</sup> Cf. Hupa -ūx, -x, III, 304.

<sup>179</sup> The stem is tee', therefore -gūllaL is an extended form or a compound suffix.

-ûñ is used in asking a question to be answered by yes or no.

wan 'ac ûñ, did you give? 137-8.

nan t ya ûñ kwān, have you come back? 132-14.

te'ûn yan ûñ kwān, you have eaten? 138-3.

-kwan hût, two of the suffixes presented above, when combined make a relative temporal reference to the completion of the act.

nas liñ ût kwāñ hût, it was again because. 107-6.

te'is teiñ kwān hût, he had made when. 120-1.

te'ôL yī kwān hût, he had named when. 117-12.

te'ûs t'a kwān hût, he had feathered when. 116-12.

kē nōL get kwān hût, because you were afraid. 123-12.

#### TENSES AND MODES

In addition to temporal and modal variations expressed by means of prefixes and suffixes discussed above there are two forms of the completed verb resulting in part from accent which have different temporal modal force associated with them. The present indefinite is usually the shorter of the two forms and is used mostly for the imperative, for intended or proposed action in the first person, and in negative statements. It might be distinguished as the non-indicative. The subject prefix of the first person singular is c, the second modals are usually absent, and the weaker form of the stem is usually found.

The definite tense is usually indicative in mode, referring to an act or state as existing at a definite time, usually past. It is distinguished by i as the subjective prefix in the first person singular, by the presence of one of the second modal prefixes, and by the stronger form of the stem. The glottal stop is so frequently found as the final element of the stem that it seems plausible that it is a morphological or phonetic characteristic of this form.

##### *Present Indefinite*

ôc lañ<sup>é</sup>, I will get. 137-2. (Pl. 24, fig. 11.)

nac be, let me swim.

cô<sup>é</sup> ôc le<sup>é</sup>, I will fix it. 77-3.

tûc ca<sup>é</sup>, I am going. 161-1.

ta te' ô' bûL, prepare mush (imp. plu.). 123-13. (Pl. 37, fig. 6.)

tôt bûL, let it rain. 80-12.

tô gûc bûñ, let him carry. 140-1.

##### *Past Definite*

ôn gī la ne, I brought. 137-1.

nī bī ne, I swam. 118-17.

cô<sup>é</sup> gī la ge, I am fixing it. 76-12.

te sī yai, I went. 120-17.

ta te sô' bīl<sup>é</sup>, have you cooked? 169-14.

tet bīl<sup>é</sup>, it rained. 81-1. (Pl. 36, fig. 13.)

tes gin, he carried. 101-11.

TABLE OF ANALYZED VERBS

Adverbial	Deictic ya te'	Objective kw	1st Modal n	2nd Modal (n)	Subjective	3rd Modal L	Stem 'aiñ	Suffix	
ya'				g		L	gal'		they saw him. (Pl. 25, fig. 3.)
ye'	te'			g		n	yai		he threw up. (Pl. 23, fig. 1). he went in. 132-13. (Pl. 23, fig. 2).
wa'						n	kañ		she gave him. 129-4. (Pl. 23, fig. 3).
Le			ge	s			'a'		it was encircling. 82-15. (Pl. 23, fig. 5).
na			de	s			bil'		he spilled. 123-2. (Pl. 23, fig. 9).
na	te'				õ'		Lõ		set snares. 108-2. (Pl. 26, fig. 8).
nõ'		c				L	gal		throw me. 133-4. (Pl. 25, fig. 1).
nûn	y					L	t'õ	gût	when he stung. 156-15. (Pl. 26, fig. 8).
nûn	s'			s		d	k'e'		he got up. 98-5. (Pl. 23, fig. 10).
na			te	g		L	'a	L	he stood them up along. 88-13. (Pl. 26, fig. 8).
be na				s	i		yîn	e	I stand. (Pl. 25, fig. 7).
de			d		e		'ai'	të le	I will try again. 139-1. (Pl. 27, fig. 4).
dõ					n		'ac	bûñ	put on the fire. 127-12. (Pl. 23, fig. 15).
te'nõ					d	l(L)	sûs	he	we did not see. 116-18. (Pl. 26, fig. 7).
	te'		ne	g		L	ge'		we will put in water. 139-9. (Pl. 24, fig. 8).
	te'	kw				L	'iñ	ût	he looked at it. 156-16. (Pl. 26, fig. 12).
	te'			n		n	ya	hât	when he fooled him. 136-14. (Pl. 26, fig. 5).
ka						l	'ai	bûñ	when he came. (Pl. 26, fig. 6). it will grow up. 84-11. (Pl. 26, fig. 9).

## INTERPRETATION OF TRACINGS

Plates 3 and 4 have nasal tracings for the upper line. These are made as follows: a glass bulb open at each end is inserted in one nostril, from the outer end of which a rubber tube passes to a tambour having a rubber membrane rather tightly stretched. To this rubber membrane a straw lever ending in a horn tracing point is attached. As long as the posterior orifices of the nostrils are closed by the velum the line will be straight, but as soon as the velum falls the tracing point rises. The tracings show that the vibrations are recorded both in the nasal consonants and nasalized vowels, when the breath passes through the nose, and in the pure vowels, when the nasal passage is closed. In the latter case the vibrations must be transmitted through the soft and hard palate.

In plates 1, 2, and 5-11 the upper line is from the larynx. A metal tube ends in a cup-shaped termination over which a sheet of thin rubber is stretched. This is applied to one side or the front of the larynx. In these tracings the attachment was in most cases to the front near the notch of the Adam's apple. The subject's neck was soft and flabby, the larynx projecting but slightly. The connection and tambour were the same as those used for nasal tracings.

In both cases the points of the tracing levers were so adjusted that vertical lines drawn with the instrument cut the two tracings at synchronous points. The error due to irregularities of the drum does not exceed a millimeter (about .02 second).

The lower line in the above mentioned plates and the tracings in the remainder of the plates are made by the air column of the breath taken from the lips by a metal mouthpiece fitting closely and transmitted by a small rubber tube to a Marey tambour. All the tracings were, with one or two exceptions, made with the same tambour with no material change in its adjustment.

Vowels and semi-vowels result in more or less elevation of the tracing point which inscribes the vibrations; these are in most cases the fundamentals not the partials of the sounds. The liquid *l* has vibrations similar to those of the vowels, but usually shows one or more deep notches at its beginning. The nasals result in straight horizontal lines at the lowest level, since no breath issues

from the mouth during the articulation. The spirants are smooth upward curves showing only the varying strength of the air-column, which is controlled by the size of the opening of the mouth passage and the lung pressure. The instrument is not delicate enough to record the agitation of the air produced by the rubbing against the opening which gives the spirants their characteristic sounds.

The stops are shown by horizontal lines of the lowest level during the period of closure, and by nearly or quite vertical lines caused by the sudden release of air at the moment of explosion. If the stop be a sonant the point immediately falls and traces the vibrations. If an aspirated surd is spoken the point continues to rise or falls slowly without marking regular vibrations. If the stop is accompanied by glottal action the points fall sharply to or below the level marked by the tracer during the closure, the vibrations beginning as it recovers from this descent.

By observing the points where the vertical lines cut the horizontal ones in plates 1-11, the exact beginning and end of sonancy and nasalization can be ascertained as regards the movements within the mouth indicated by the breath tracing. The straight horizontal line is drawn mechanically while the paper is on the drum and constitutes a time line extremely accurate, with 50 mm. equal to one second. The duration of words, syllables, individual sounds, and often their component parts may be quickly determined.

Varying elevations of the tracings of the same sound in the same word indicate changing stress. It is probable that vowels being but slightly impeded in the passage through the mouth regardless of their quality show stress. The amplitude of the vibrations in the tracings varies with both stress and pitch, since the natural period of the membrane and lever favors a certain rate of vibration which is rendered more strongly. The pitch can often be determined, relatively at least, by counting the number of vibrations in a given length of base line.

Little can be determined as to the quality of the vowels by tracings such as these.

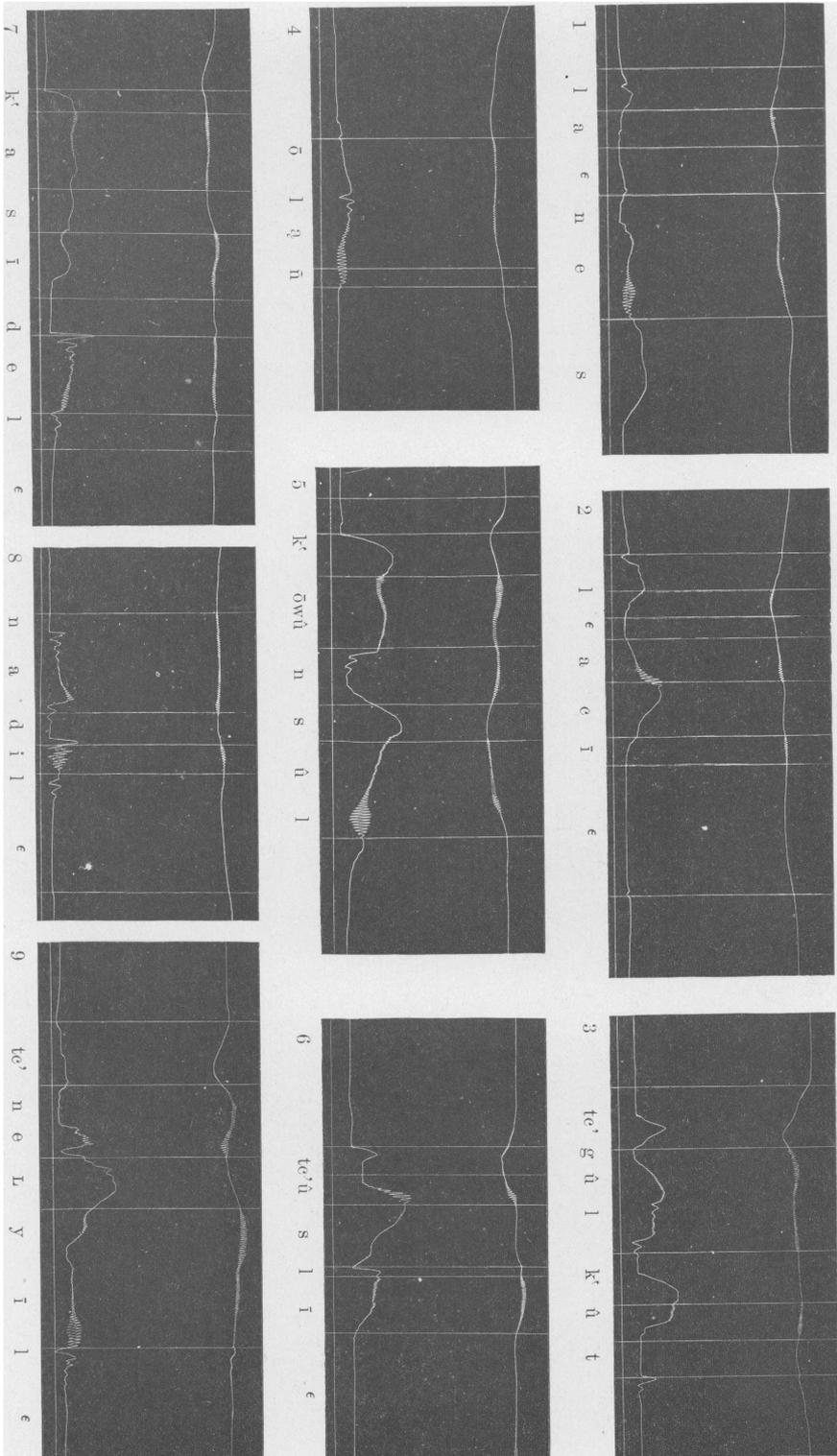
*Transmitted March 1, 1911.*

EXPLANATION OF PLATE 1

LATERAL SONANT AND SPIRANT

Upper line larynx, lower line breath.

- Fig. 1.— la<sup>é</sup> nes, raccoon. 112-5.
- Fig. 2.— l<sup>é</sup>a cí<sup>é</sup>, buckeye. 94-6.
- Fig. 3.— tc' gûl kût, he swallowed. 109-7.
- Fig. 4.— ô lañ, you get (imp.), 133-14.
- Fig. 5.— kô wûn sûl, it was becoming hot. 172-14.
- Fig. 6.— tc'ús hî<sup>é</sup>, he caught in a noose. 108-4.
- Fig. 7.— -ka sî del<sup>é</sup>, we came up. 141-2.
- Fig. 8.— na dil<sup>é</sup>, sugar-pine. 89-17.
- Fig. 9.— tc'n neL yil<sup>é</sup>, she eats up. 180-9.



## LATERAL SPIRANT

Upper line larynx, lower line breath.

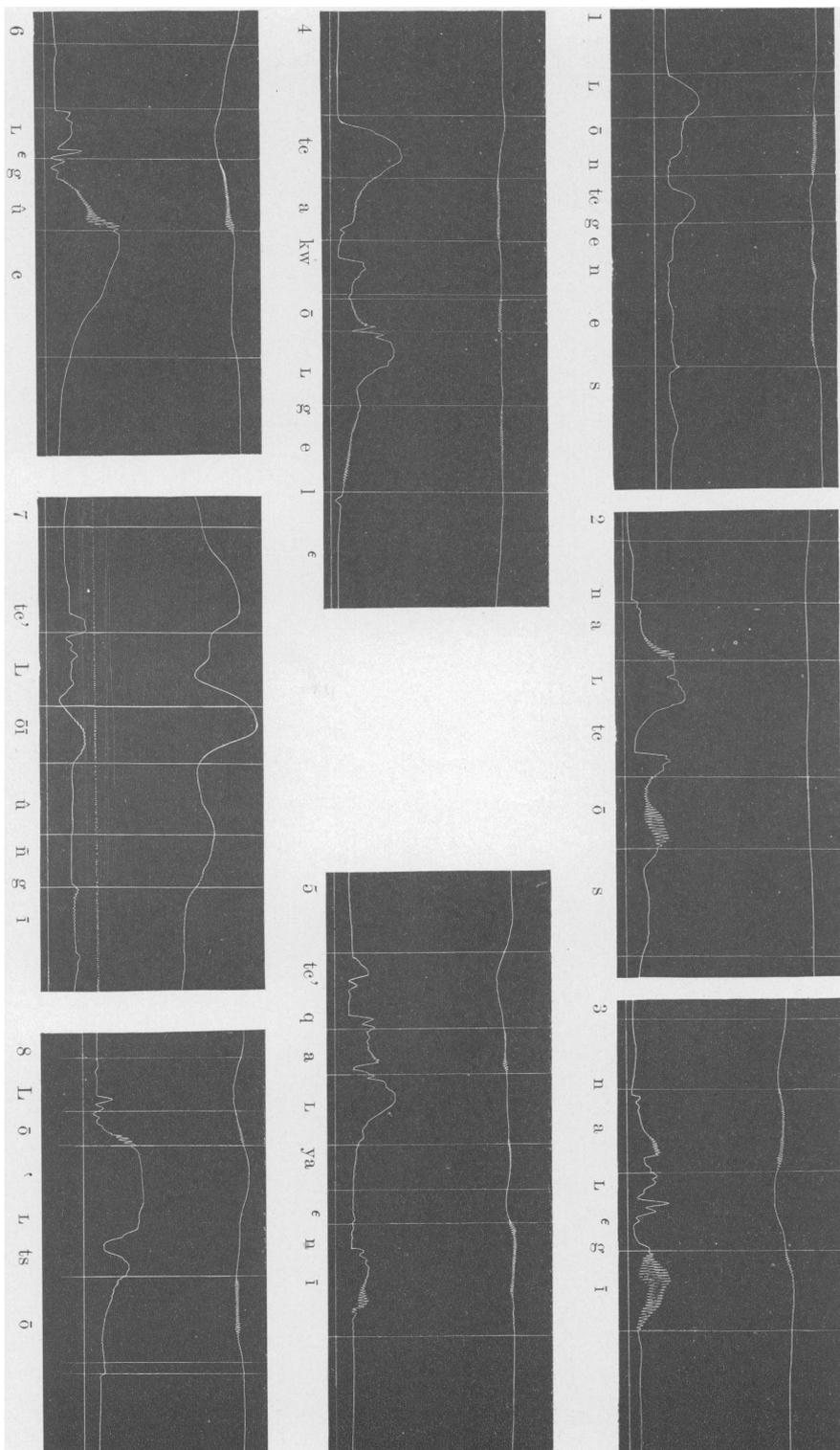
Fig. 1.— Lōn te ge nes, "rodent ears long," a mouse.

Fig. 2.— naL teōs, she put a blanket. 180-7.

Fig. 3.— naL<sup>ε</sup> gī, dog. 91-9.Fig. 4.— tea kwōL gel<sup>ε</sup>, very dark. 74-8.Fig. 5.— te' qaL ya<sup>ε</sup> ni, he was walking they say. 93-12.Fig. 6.— L<sup>ε</sup> gūc, rattlesnake. 91-17.

Fig. 7.— te' Lōi ũn gi, she is making basket.

Fig. 8.— Lō' L tsō, grass blue. 76-6.

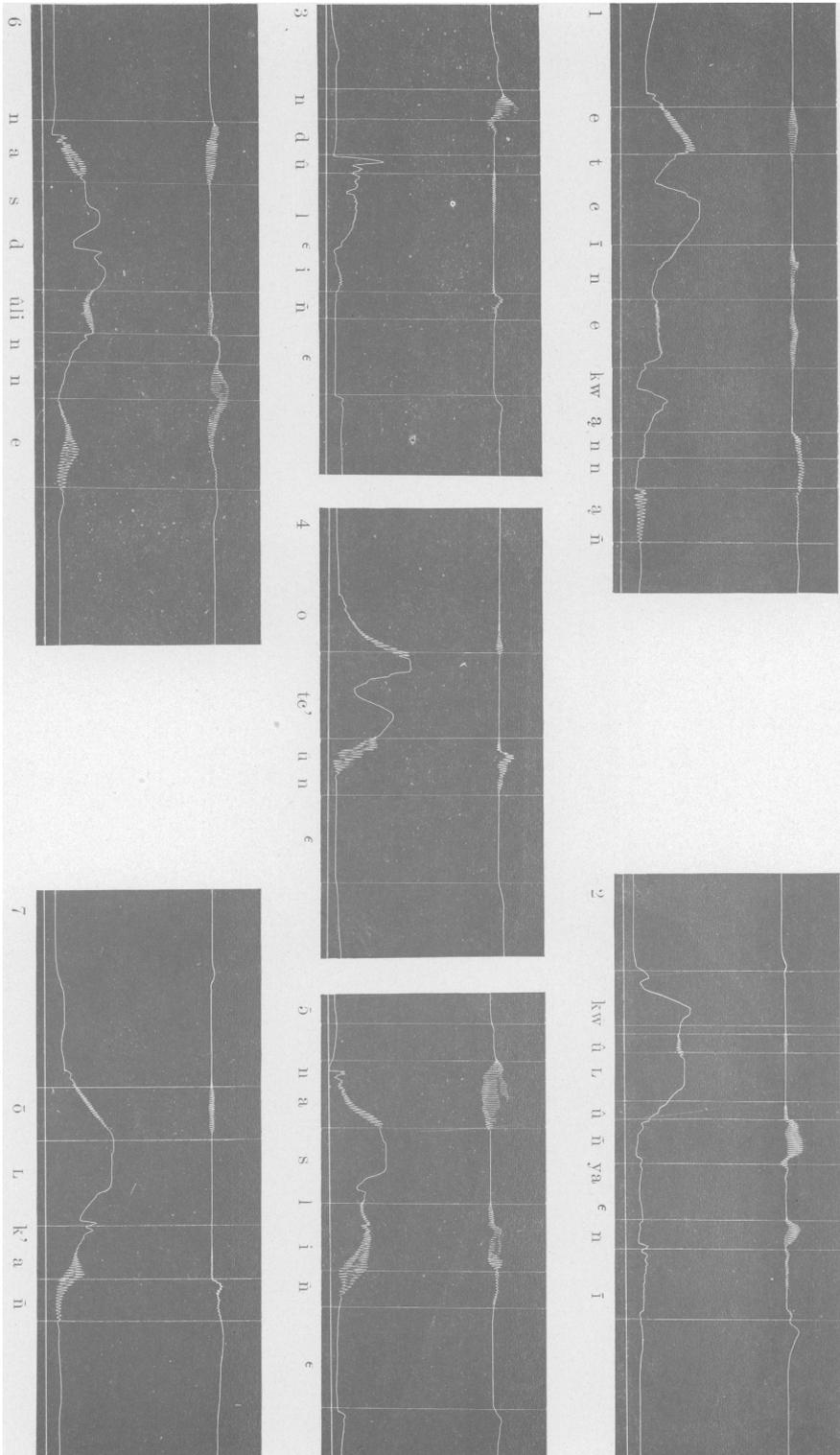


EXPLANATION OF PLATE 3

NASALS

Upper line from bulb in nostril, lower line breath.

- Fig. 1.— *et eī nē kwān nāñ*, it had turned black. 94-7.  
 Fig. 2.— *kwūL ūn ya<sup>ε</sup> nī*, they told him they say. 125-2.  
 Fig. 3.— *n dūl 'iñ<sup>ε</sup>*, let us look. 168-1.  
 Fig. 4.— *ō te'ūñ<sup>ε</sup>*, to him. 79-9.  
 Fig. 5.— *nas liñ<sup>ε</sup>*, he became. 107-8.  
 Fig. 6.— *nas dūl lin ne*, we have got back. 95-12.  
 Fig. 7.— *ōL k'añ*, make a fire (plu. imp.). 103-7.

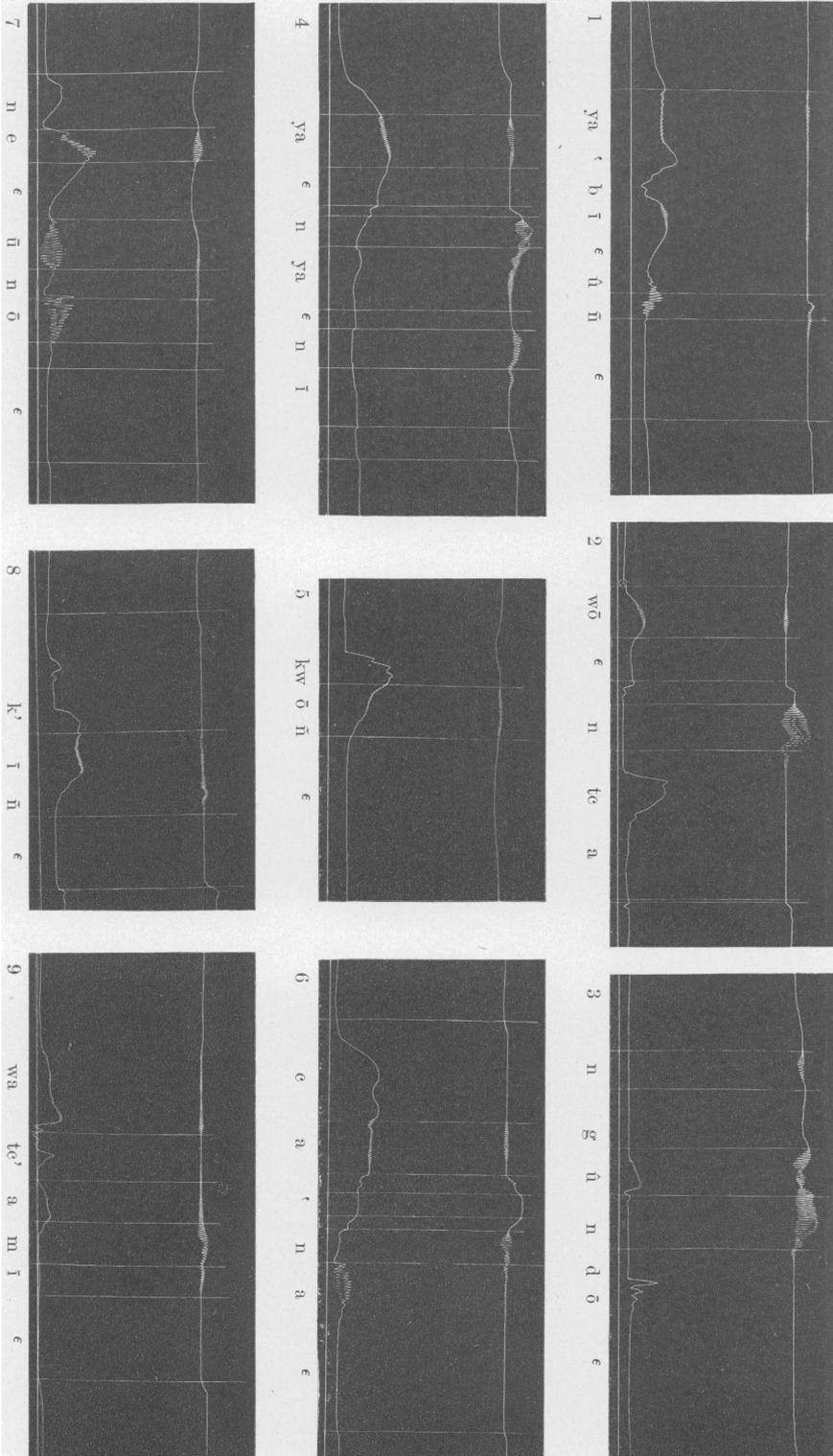


EXPLANATION OF PLATE 4

NASALS

Upper line from bulb in nostril, lower line breath.

- Fig. 1.— *ya' bī<sup>é</sup> ūñ<sup>é</sup>*, sky in. 81-2.  
 Fig. 2.— *wō<sup>é</sup>n tca'*, teeth large. 86-5.  
 Fig. 3.— *n gūn dō<sup>é</sup>*, it became none. 76-12.  
 Fig. 4.— *ya<sup>é</sup>n ya<sup>é</sup> nī*, they said they say. 82-11.  
 Fig. 5.— *kwōñ<sup>é</sup>*, fire. 81-3.  
 Fig. 6.— *ca'na<sup>é</sup>*, creek. 79-3.  
 Fig. 7.— *ne<sup>é</sup> ū nō<sup>é</sup>*, behind the hill. 164-16.  
 Fig. 8.— *k'īñ<sup>é</sup>*, juneberry. 133-3.  
 Fig. 9.— *wa tc'a mī<sup>é</sup>*, hole in. 156-12.

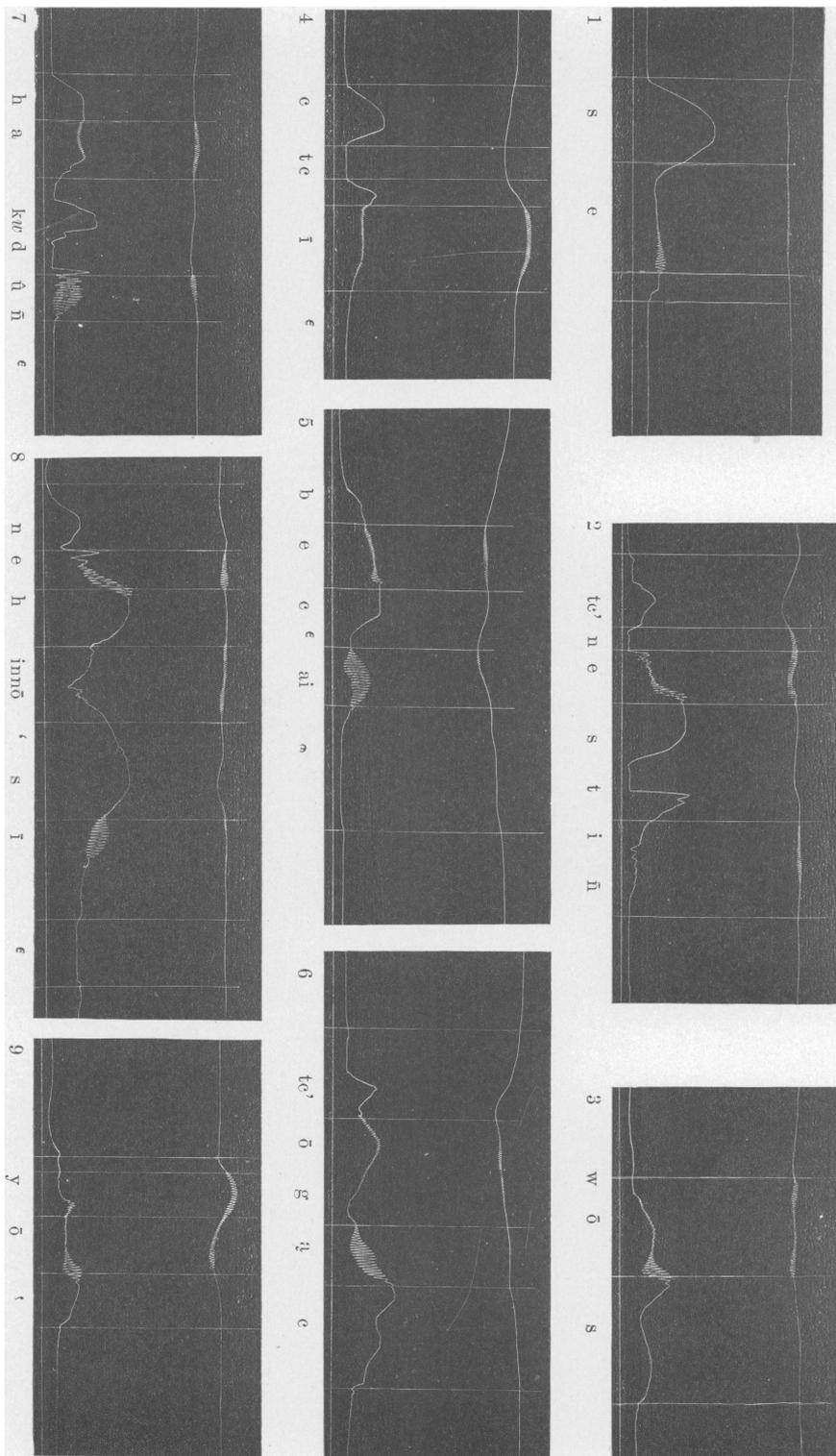


EXPLANATION OF PLATE 5

SPIRANTS

Upper line larynx, lower line breath.

- Fig. 1.— se, stone. 71-3.  
 Fig. 2.— te'nes tiñ, he lay down. 175-11.  
 Fig. 3.— wōs, leg. 79-10.  
 Fig. 4.— c teī<sup>ε</sup>, my heart. 101-5.  
 Fig. 5.— bec 'ai<sup>ε</sup>, I will try it. 109-9.  
 Fig. 6.— te'ō gæc, let him chew it.  
 Fig. 7.— hakw dūñ<sup>ε</sup>, that time. 71-2.  
 Fig. 8.— ne hin nō'si<sup>ε</sup>, our heads. 129-10.  
 Fig. 9.— yō<sup>t</sup>, scoter(?), a bird. 122-6.

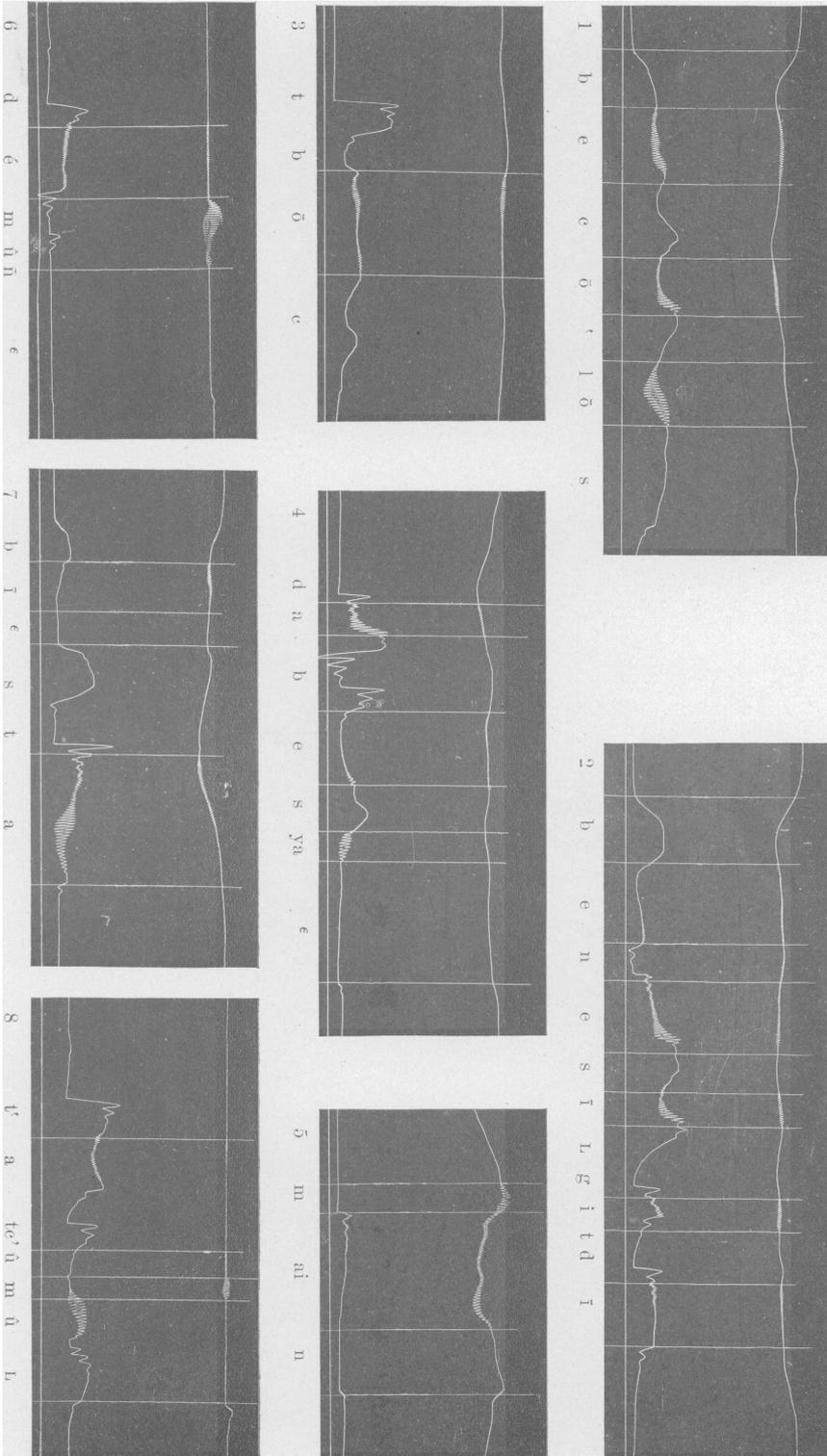


EXPLANATION OF PLATE 6

LABIAL STOP AND NASAL

Upper line of figs. 1-4, 7, larynx, of figs. 5, 6, 8, from bulb in nostril,  
lower line breath.

- Fig. 1.— be cō' lōs, take me up (plu.), 147-6.
- Fig. 2.— be ne sīL git dī, I am afraid of. 130-15.
- Fig. 3.— t bōc, it is round. 80-1.
- Fig. 4.— da bes ya<sup>ε</sup>, he climbed up. 180-6.
- Fig. 5.— main, weasel. 74-2.
- Fig. 6.— dē mûñ<sup>ε</sup>, it is full. 129-13.
- Fig. 7.— bī<sup>ε</sup> sta, he was sitting in. 132-3.
- Fig. 8.— ta te'ûm mûL, cook mush (imp. sing.). 163-14.

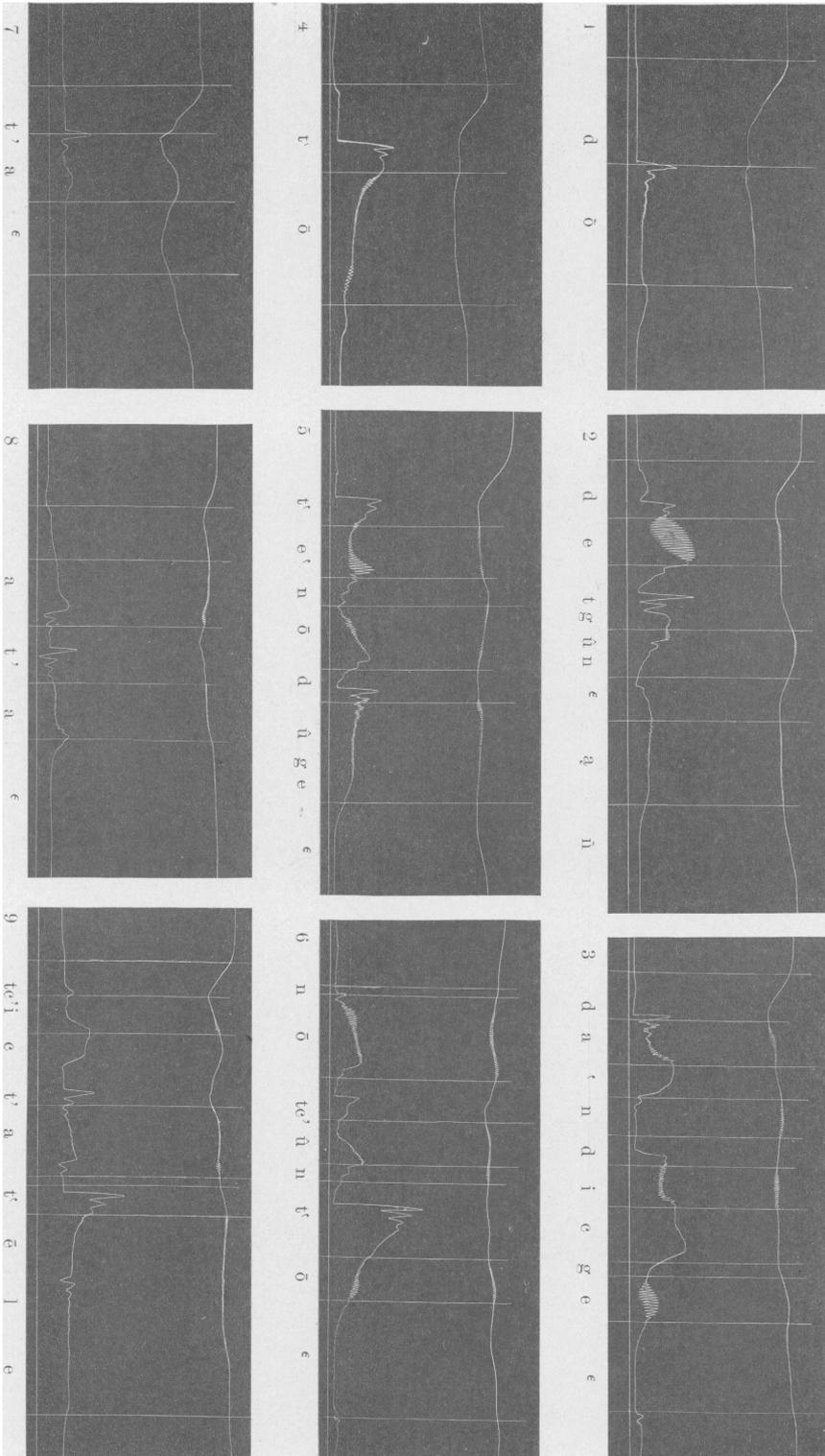


EXPLANATION OF PLATE 7

DENTAL STOPS

Upper line larynx, lower line breath.

- Fig. 1.— dō, not. 137-2.
- Fig. 2.— de t gūn ʼaŋ, he put in the fire. 168-17.
- Fig. 3.— daʼ n die geʼ, I will pick you up. 141-4.
- Fig. 4.— tō, water. 71-1.
- Fig. 5.— teʼ nō dūg geʼ, we will put in water. 139-9.
- Fig. 6.— nō teʼūn tōʼ, water came so far. 75-1.
- Fig. 7.— tʼaʼ, feather. 105-14.
- Fig. 8.— a tʼa, her blanket fold. 181-9.
- Fig. 9.— teʼic tʼa tē le, I will feather arrows. 156-5.

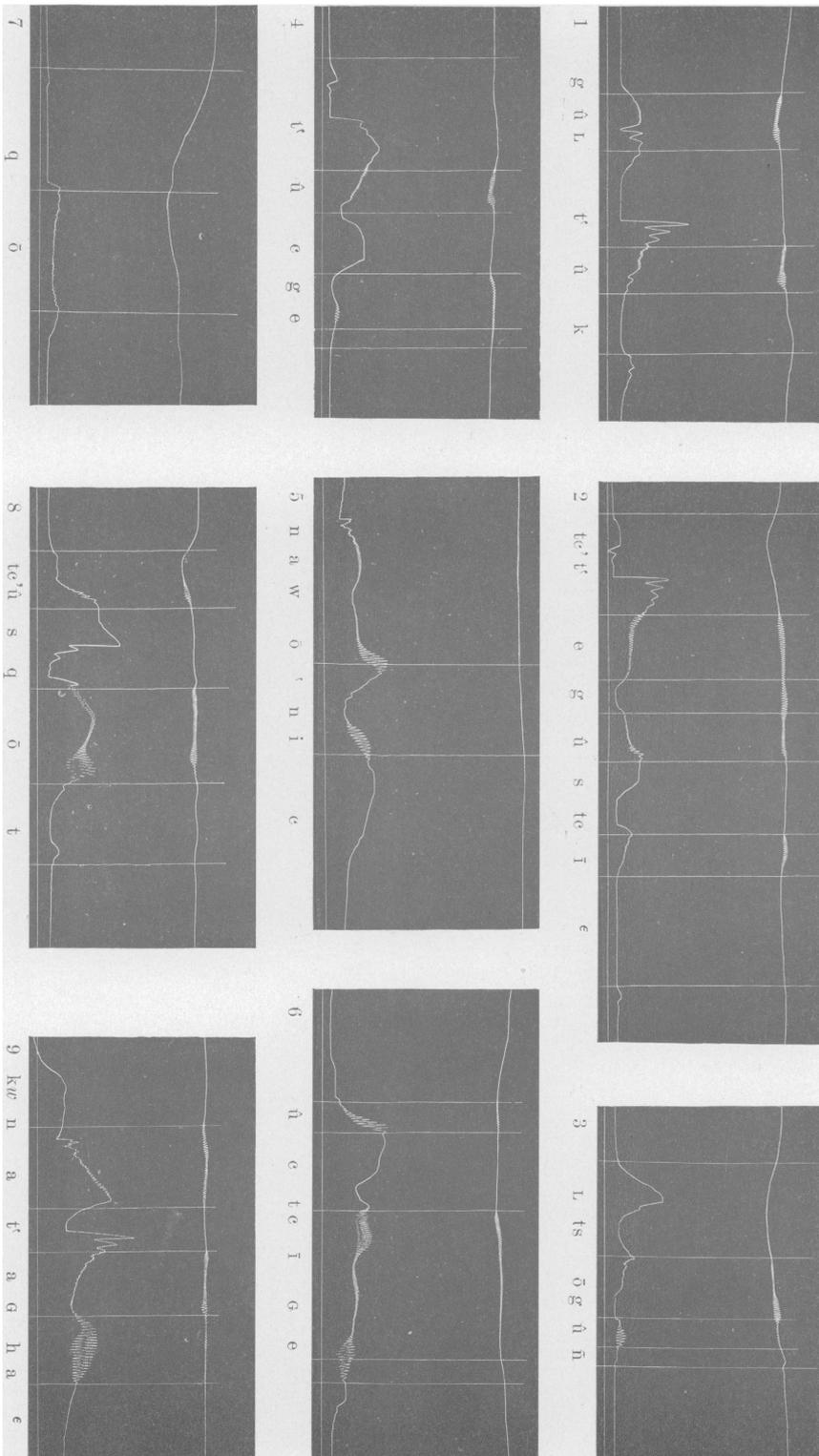


EXPLANATION OF PLATE 8

SONANT PALATAL STOPS

Upper line larynx, lower line breath.

- Fig. 1.— gûl tâk, it burst. 182-5.  
 Fig. 2.— te't te gûs tei<sup>é</sup>, it was about to dawn.  
 Fig. 3.— L tsô gûñ, fox. 73-3.  
 Fig. 4.— tâc ge<sup>é</sup>, I will carry. 135-4.  
 Fig. 5.— na wô' nic, you (plu.) played. 134-17.  
 Fig. 6.— ûc tei ge, I cried. 140-6.  
 Fig. 7.— qô, worm.  
 Fig. 8.— te'ûs qôt, he speared it. 128-13.  
 Fig. 9.— kw na tag ha<sup>é</sup>, without his knowledge.

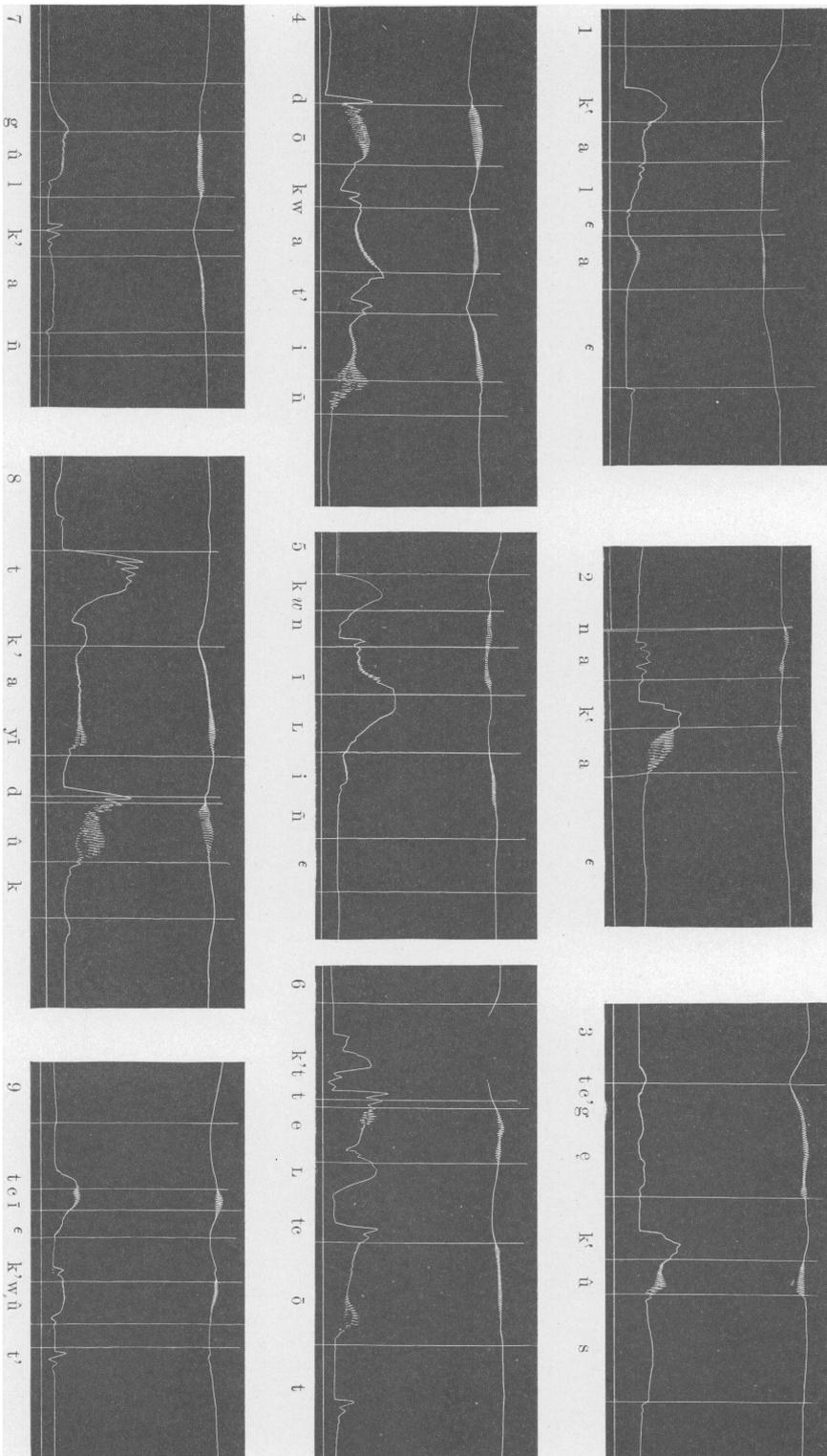


EXPLANATION OF PLATE 9

SURE PALATAL STOPS

Upper line larynx, lower line breath.

- Fig. 1.—ka l'a<sup>ε</sup>, it sprang up (of vegetation). 76-10.  
 Fig. 2.—nak ka<sup>ε</sup>, two. 178-4.  
 Fig. 3.—te'gε kūs, a boat went. 126-7.  
 Fig. 4.—dō kwa t'ĩñ, he never did that. 130-14.  
 Fig. 5.—kw nĩl iñ<sup>ε</sup>, he looked at him. 134-2.  
 Fig. 6.—k't tεL tεōt, he stole. 118-11.  
 Fig. 7.—gũl k'añ, there was a fire. 162-13.  
 Fig. 8.—t k'an yi dũk, up the ridge. 99-3.  
 Fig. 9.—ō tēi k'wũt', on his tail. 162-14.

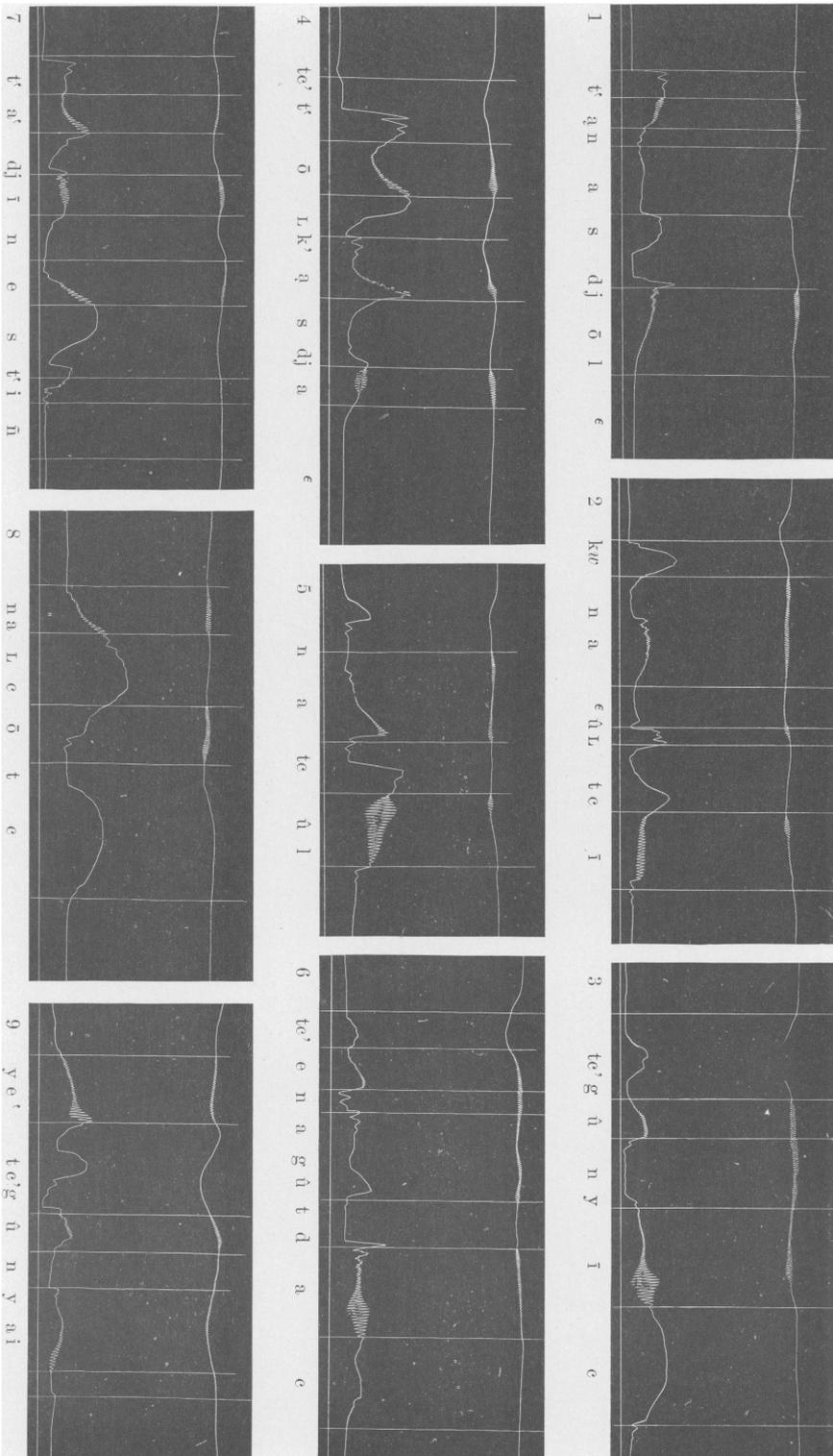


EXPLANATION OF PLATE 10

AFFRICATIVES

Upper line larynx, lower line breath.

- Fig. 1.— *t̄an nas dj̄ol̄ε*, it rolled out of the fire. 147-9.  
 Fig. 2.— *kw naε ûl̄ tci*, make him live.  
 Fig. 3.— *te' ḡun̄ yic*, he broke off. 79-12.  
 Fig. 4.— *te' t̄ol̄ k'as̄ djaε*, let him drop. 129-8.  
 Fig. 5.— *na t̄c̄ul̄*, orphan. 102-6.  
 Fig. 6.— *te'e na ḡut̄ dac*, he came out again. 149-13.  
 Fig. 7.— *ta' d̄ji nes̄ tiñ*, where is he lying? 182-3.  
 Fig. 8.— *naL̄ c̄ote*, grass-snake. 84-5.  
 Fig. 9.— *ye' te' ḡun̄ yai*, he went in. 97-11; 132-13.

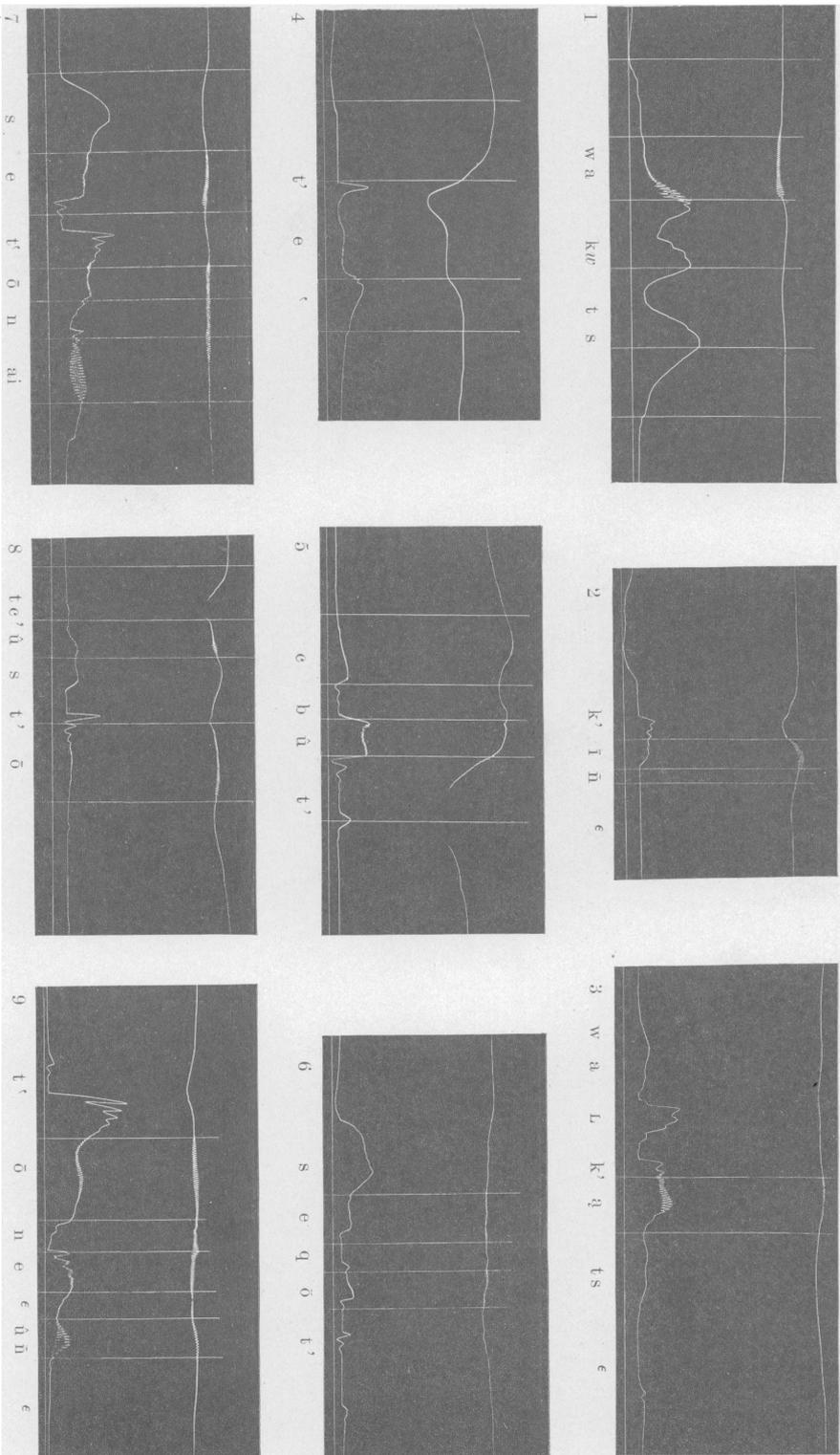


EXPLANATION OF PLATE 11

MISCELLANEOUS

Upper line larynx, lower line breath.

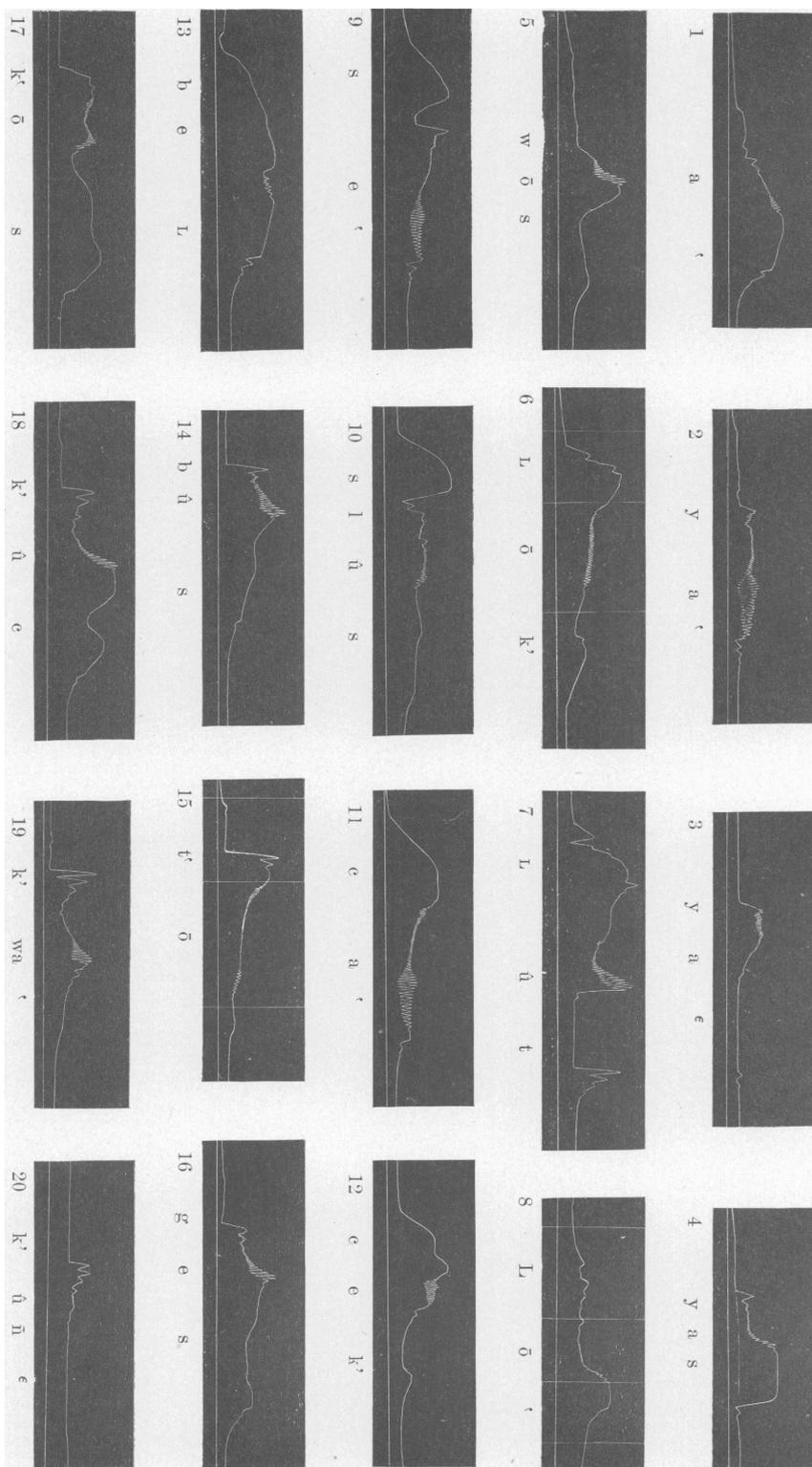
- Fig. 1.— wakʷts, one side, away from.  
 Fig. 2.— k'ĩñ<sup>é</sup>, juneberry. 133-3.  
 Fig. 3.— waLk'ąts<sup>é</sup>, he put in. 105-14.  
 Fig. 4.— t'e<sup>é</sup>, raw. 91-5.  
 Fig. 5.— c băt', my stomach.  
 Fig. 6.— se qôt', a headdress. 176-17.  
 Fig. 7.— se tō nai, stone-fish (sword-fish?). 86-1.  
 Fig. 8.— te'ūs t'ōk', he flaked. 156-7.  
 Fig. 9.— tō ne<sup>é</sup> ũñ<sup>é</sup>, water behind. 126-6.



EXPLANATION OF PLATE 12

MONOSYLLABIC NOUNS

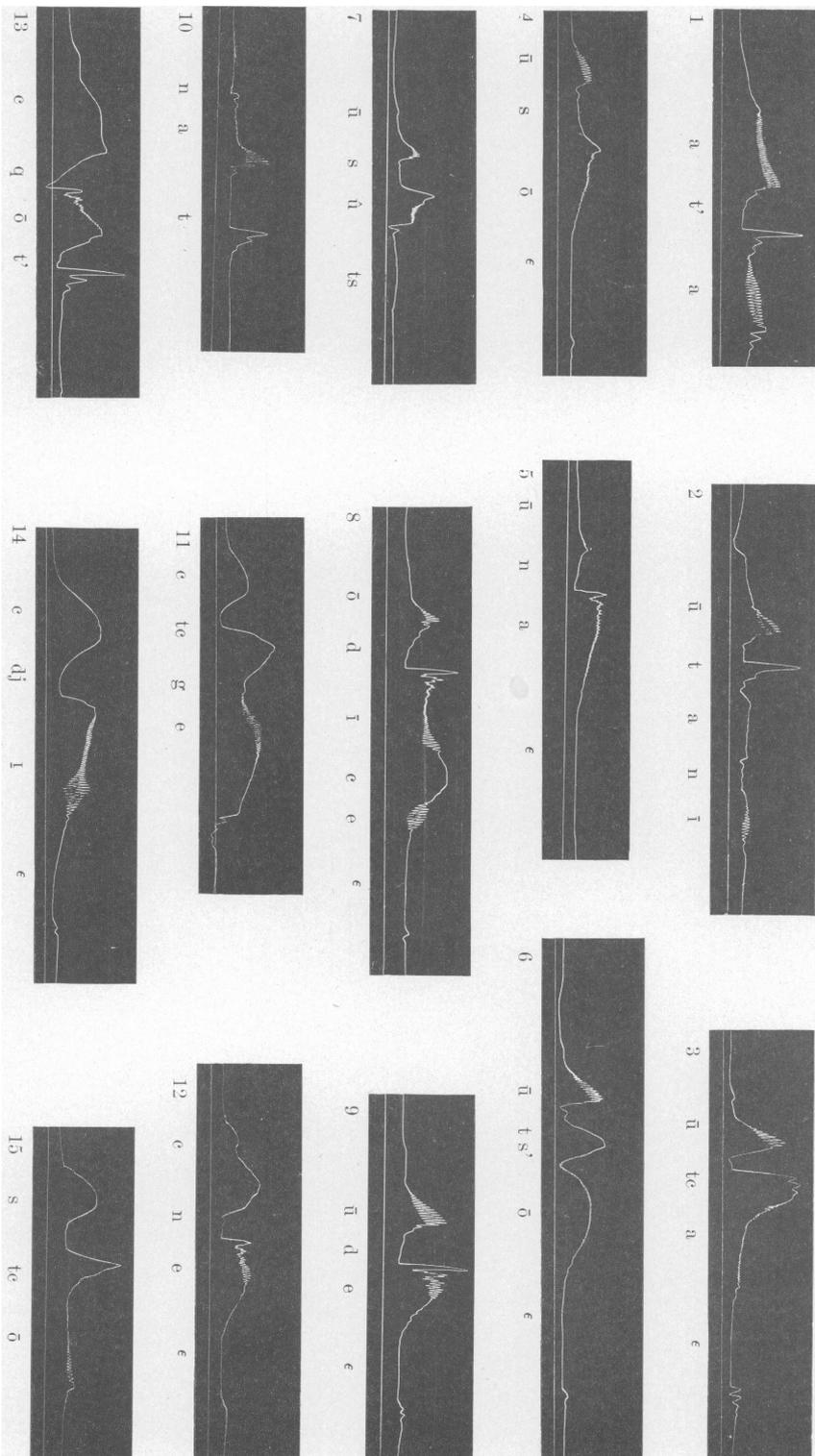
- Fig. 1.—a', clouds. 74-6.
- Fig. 2.—ya', sky. 77-13.
- Fig. 3.—ya<sup>ε</sup>, louse. 152-5.
- Fig. 4.—yas, snow. 74-3.
- Fig. 5.—wōs, leg. 79-10.
- Fig. 6.—Lōk', steel-head salmon. 84-5.
- Fig. 7.—Lūt, smoke. 141-2.
- Fig. 8.—Lō', herb. 71-3.
- Fig. 9.—se', stone. 71-3.
- Fig. 10.—slūs, ground-squirrel. 73-7.
- Fig. 11.—ca', sun. 74-9.
- Fig. 12.—cek', sputum. 154-14.
- Fig. 13.—beL, rope. 101-7.
- Fig. 14.—būs, slide of soil. 86-11.
- Fig. 15.—tō, water. 71-1.
- Fig. 16.—ges, salmon. 84-3.
- Fig. 17.—kōs, cough.
- Fig. 18.—k'ûc, alder.
- Fig. 19.—k'wa', fat. 83-15.
- Fig. 20.—k'ûñ<sup>ε</sup>, hazel. 133-10.



EXPLANATION OF PLATE 13

NOUNS WITH POSSESSIVE PREFIXES

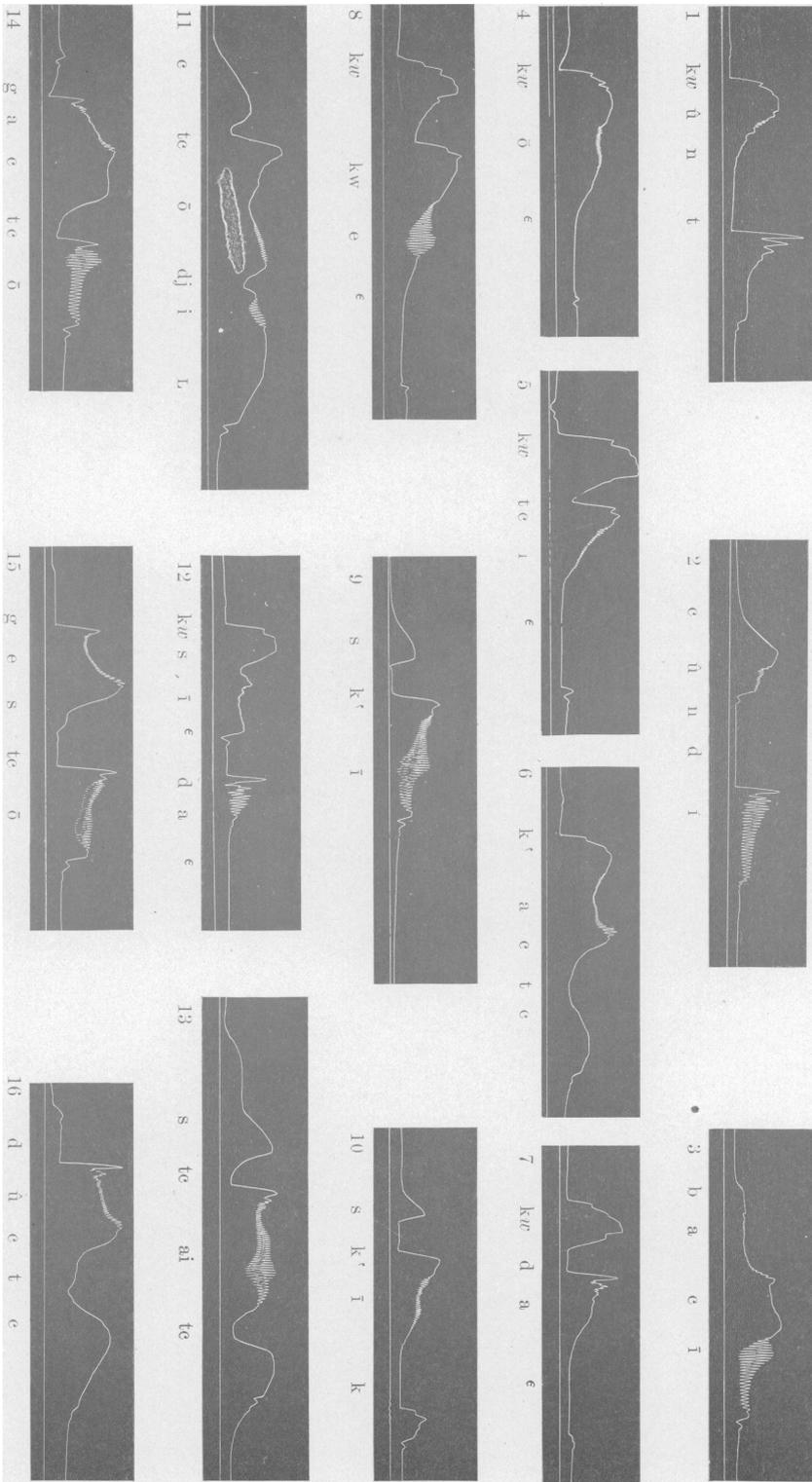
- Fig. 1.— a t'a, her blanket fold. 181-9.  
 Fig. 2.— ū t'a nī, her dress. 165-6.  
 Fig. 3.— ū tca<sup>ε</sup>, her apron. 165-8.  
 Fig. 4.— ū sō<sup>ε</sup>, his tongue. 110-3.  
 Fig. 5.— ū na<sup>ε</sup>, his eye. 152-10.  
 Fig. 6.— ū ts'ō<sup>ε</sup>, her milk.  
 Fig. 7.— ū sūts, its hide. 110-4.  
 Fig. 8.— ō dī ce<sup>ε</sup>, its shoulder. 75-1.  
 Fig. 9.— ū de<sup>ε</sup>, its horn. 74-10.  
 Fig. 10.— nat', your sister. 132-4.  
 Fig. 11.— c te ge, my grandfather. 153-10.  
 Fig. 12.— c ne<sup>ε</sup>, my leg.  
 Fig. 13.— c qōt', my knee.  
 Fig. 14.— c djī<sup>ε</sup>, my heart.  
 Fig. 15.— s teō, my grandmother. 97-16.



EXPLANATION OF PLATE 14

NOUNS WITH POSSESSIVE PREFIXES.

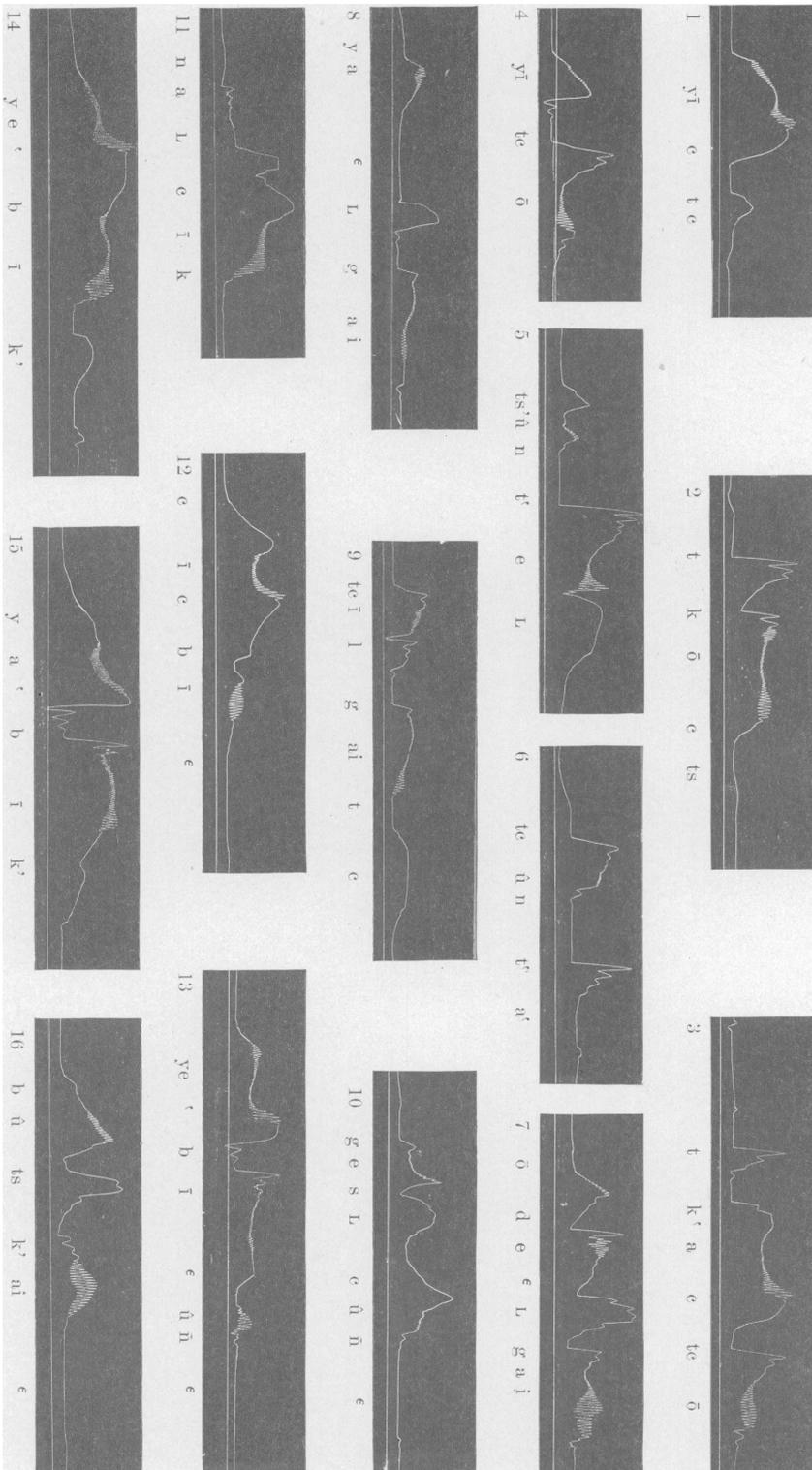
- Fig. 1.—kwânt, cousin. 145-2.  
 Fig. 2.—cûn dî, my cousin. 145-3.  
 Fig. 3.—ba cî, his nephew. 145-3.  
 Fig. 4.—kwô<sup>é</sup>, his teeth. 181-8.  
 Fig. 5.—kw teî<sup>é</sup>, his tail.  
 Fig. 6.—kacte, knife. 110-10.  
 Fig. 7.—kw da<sup>é</sup>, his mouth. 123-2.  
 Fig. 8.—kw kwe<sup>é</sup>, his foot. 82-5.  
 Fig. 9.—skî, boy. 102-6.  
 Fig. 10.—skik, children. 132-8.  
 Fig. 11.—c teô djil, my kidney. 133-3.  
 Fig. 12.—kw sî<sup>é</sup> da<sup>é</sup>, his crown. 79-4.  
 Fig. 13.—s teaité, my grandchild. 97-16.  
 Fig. 14.—gac teô, redwood, 86-8.  
 Fig. 15.—ges teô, elk. 71-5.  
 Fig. 16.—dûete, quail. 72-5.



EXPLANATION OF PLATE 15

NOUNS WITH SUFFIXES

- Fig. 1.—yītc, wolf. 71-6.  
 Fig. 2.—t kōctš, chestnut. 89-8.  
 Fig. 3.—t kac tēō, pelican. 72-13.  
 Fig. 4.—yī tēō, dance house. 83-11.  
 Fig. 5.—ts'ūñ tēL, turtle (bone broad). 90-14.  
 Fig. 6.—tēūñ ta', among trees. 171-9.  
 Fig. 7.—ō de° L gai, its horn white. 161-16.  
 Fig. 8.—ya° L gai, louse white.  
 Fig. 9.—tēil gaitc, tail white. 138-12.  
 Fig. 10.—ges L cūñ°, salmon black. 86-2.  
 Fig. 11.—na L cīk, eye shining. 181-9.  
 Fig. 12.—cīc bī°, red earth in (a mountain). 102-15.  
 Fig. 13.—ye' bī° ūñ, house in. 110-15.  
 Fig. 14.—ye' bīk, house inside. 99-5.  
 Fig. 15.—ya' bīk, sky inside. 101-15.  
 Fig. 16.—būts k'ai°, seagull. 122-6.



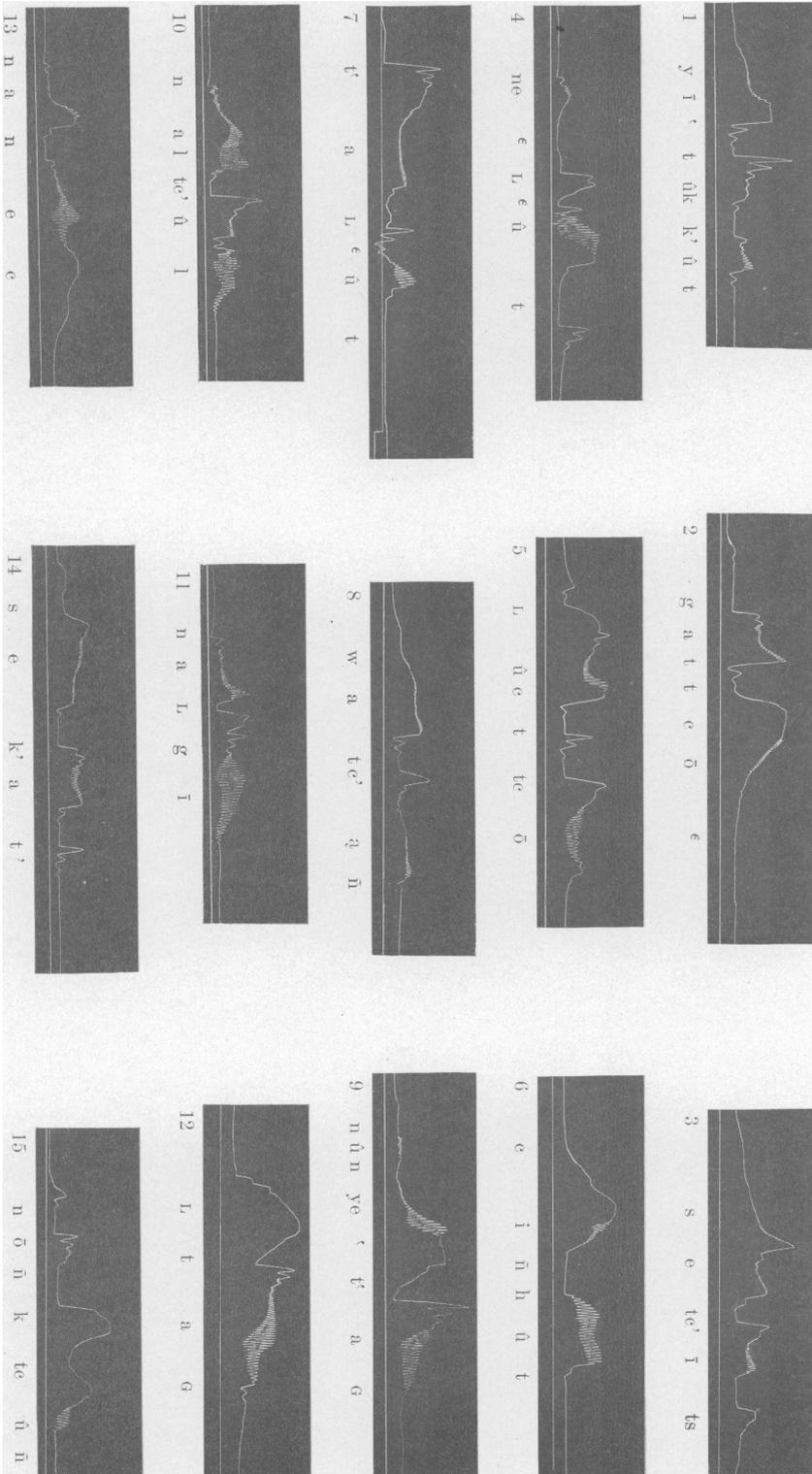
EXPLANATION OF PLATE 16

NOUNS WITH SUFFIXES

- Fig. 1.—yī' tūk gât, house middle. 142-13.  
 Fig. 2.—gat teō<sup>ε</sup>, barnacle.  
 Fig. 3.—se teits, stone rough (sand-stone). 77-9.  
 Fig. 4.—ne<sup>ε</sup> L<sup>ε</sup>ât, world middle. 75-3.  
 Fig. 5.—Lûc t teō, rotten log. 134-15.  
 Fig. 6.—ciñ hût, summer time. 155-1.  
 Fig. 7.—ta L<sup>ε</sup>ât, ocean middle. 126-8.  
 Fig. 8.—wa te'añ, hole. 78-8.  
 Fig. 9.—nûn ye' tag, ground under is found (bulbs). 148-8.  
 Fig. 10.—nal te'ûl, white thorn. 91-14.  
 Fig. 11.—naL gî, dog. 91-9.  
 Fig. 12.—L tag, black oak. 89-17.  
 Fig. 13.—na nec, people. 71-7.  
 Fig. 14.—se k'at', grinding stone. 137-16.  
 Fig. 15.—nõñ k teûñ, pounded seeds. 94-4.

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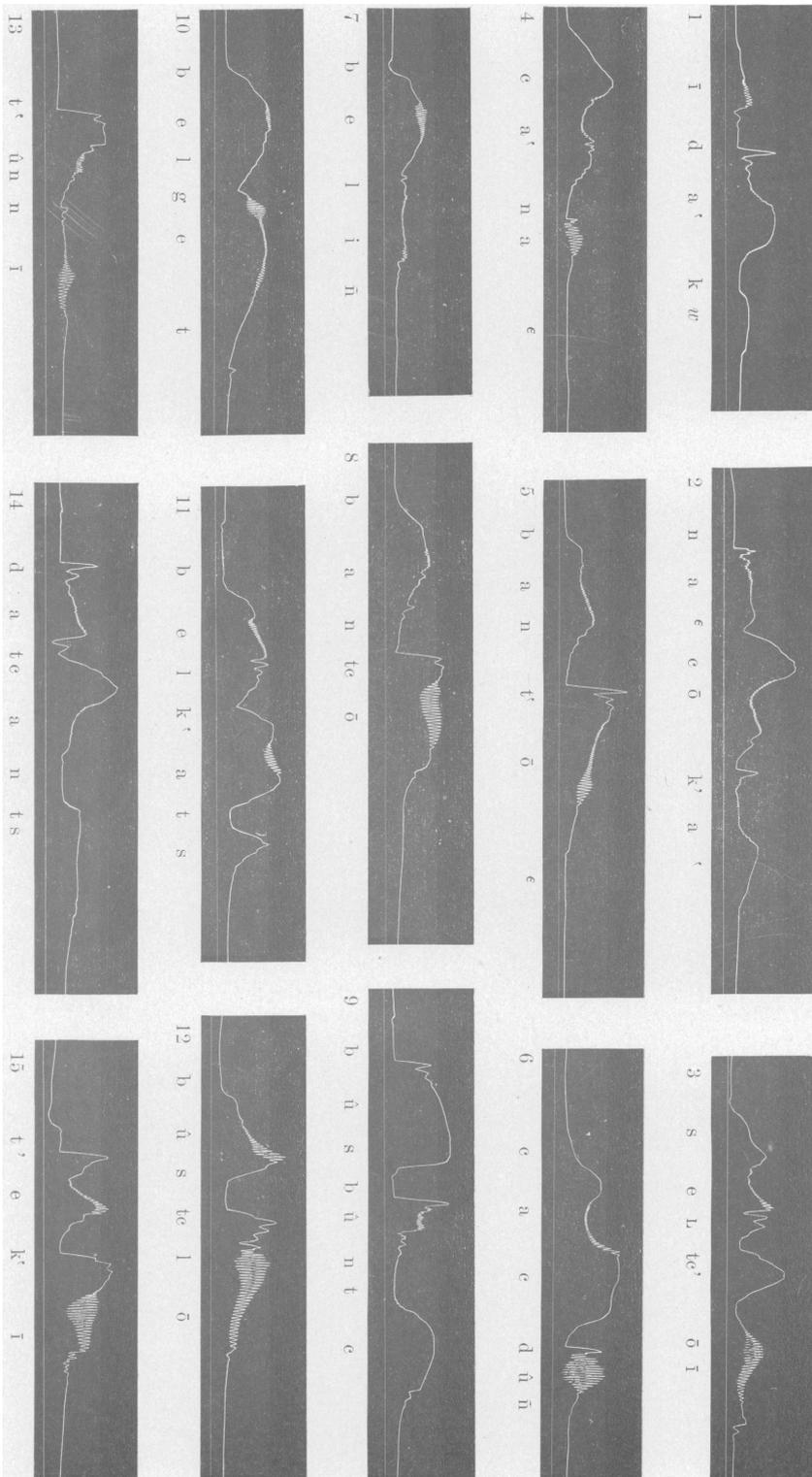
[GODDARD] PL. 15



EXPLANATION OF PLATE 17

POLYSYLLABIC NOUNS

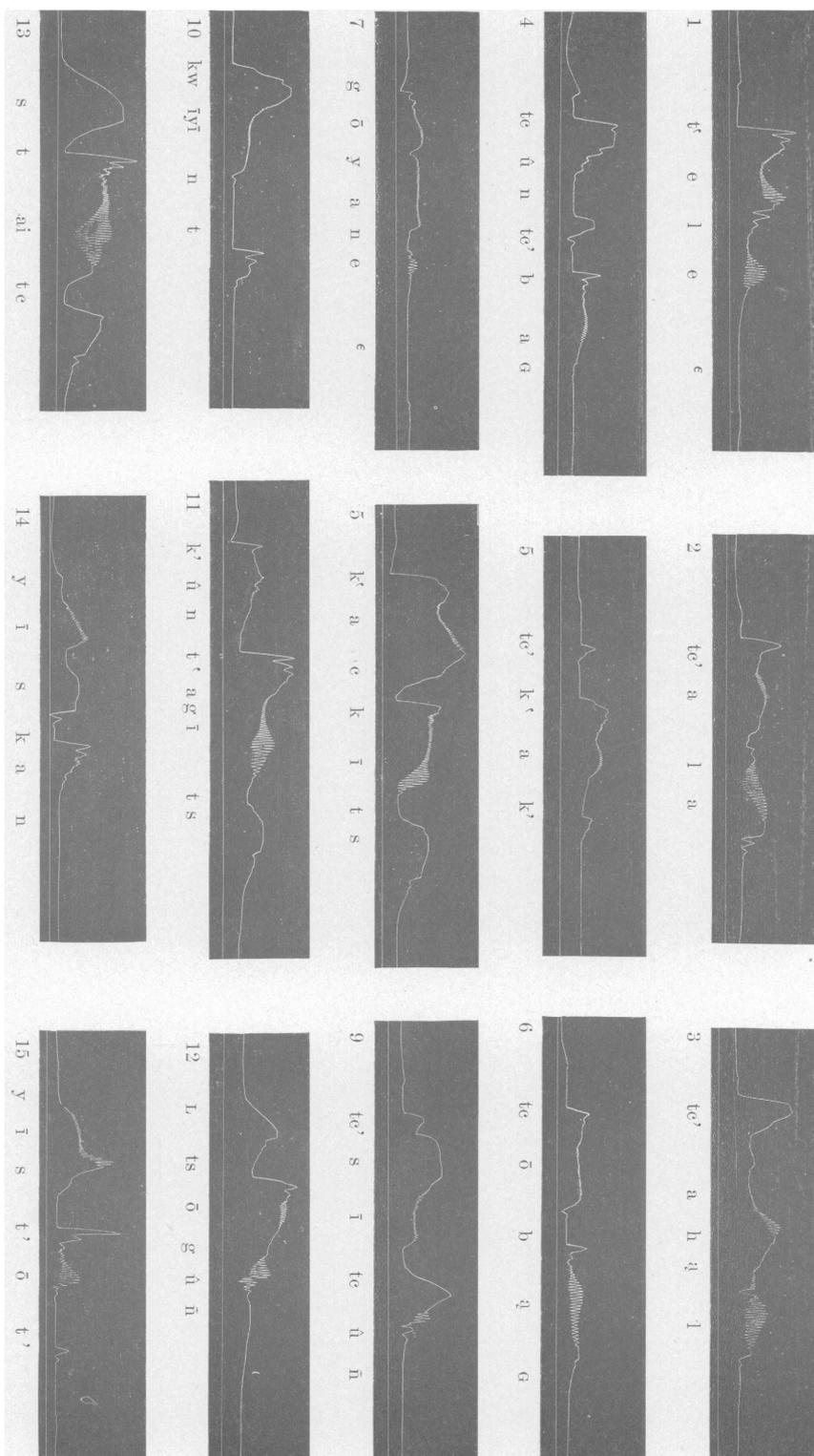
- Fig. 1.— *i da' kw*, Wailaki or Yuki. 170-9.  
 Fig. 2.— *na<sup>ε</sup> cō k'a'*, robin. 72-9.  
 Fig. 3.— *seL te'ō i*, heron. 72-4.  
 Fig. 4.— *ca'na<sup>ε</sup>*, stream 79-3.  
 Fig. 5.— *ban tō<sup>ε</sup>*, ocean. 86-10.  
 Fig. 6.— *cac dūñ*, bear clover. 94-9.  
 Fig. 7.— *be liñ*, eel. 90-15.  
 Fig. 8.— *ban tēō*, mussel. 84-13.  
 Fig. 9.— *būs būnte*, an owl. 92-8.  
 Fig. 10.— *bel get*, fish spear. 133-8.  
 Fig. 11.— *bel kats*, pole of fish-spear. 128-12.  
 Fig. 12.— *būs te lō*, owl. 72-2.  
 Fig. 13.— *tūn nī*, road. 78-4.  
 Fig. 14.— *da teants*, crow. 72-15.  
 Fig. 15.— *t'e kī*, girls. 111-2.



EXPLANATION OF PLATE 18

POLYSYLLABIC NOUNS

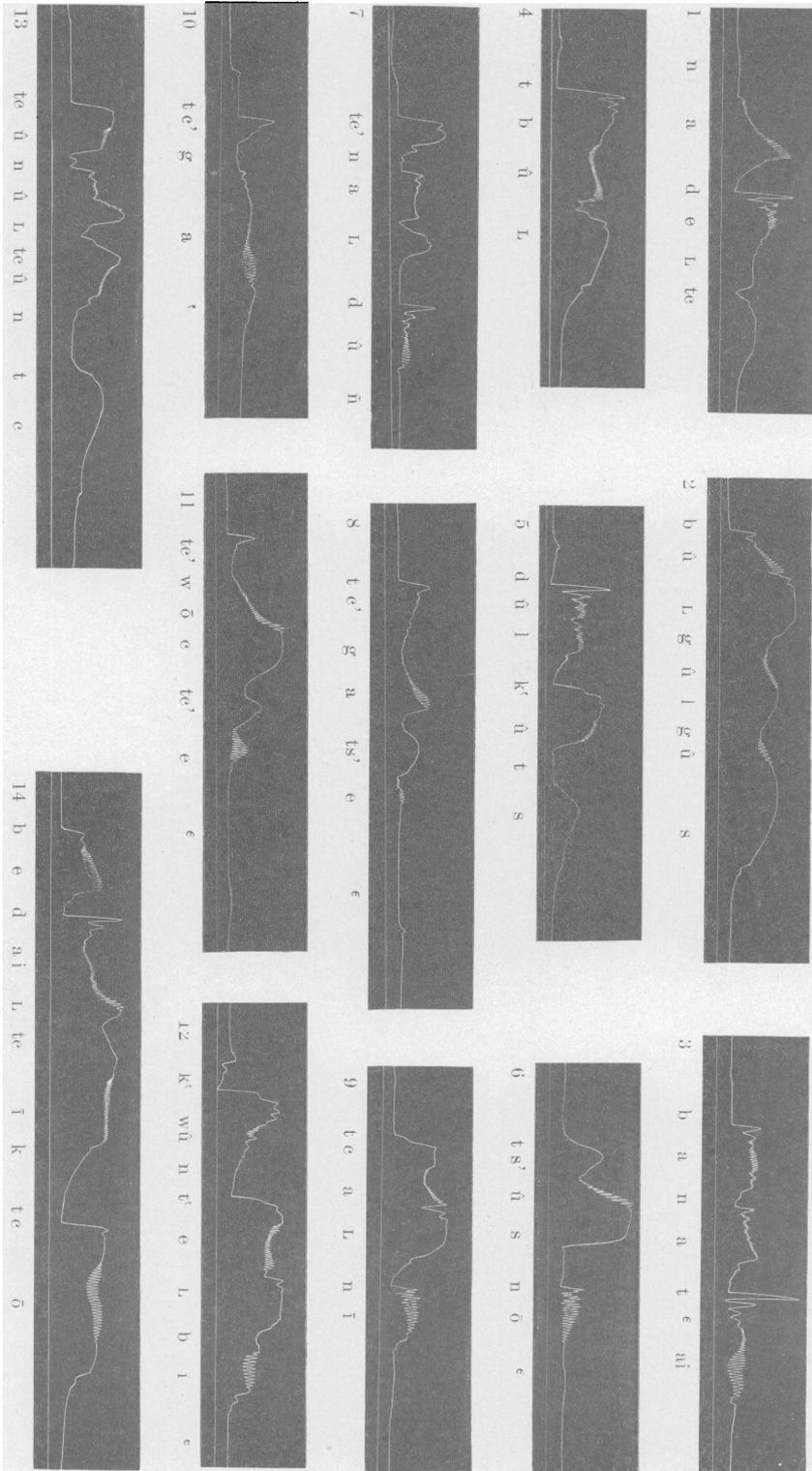
- Fig. 1.— tele<sup>é</sup>, sack. 113-7.  
 Fig. 2.— te'a la, sun-flower. 138-6.  
 Fig. 3.— te'a hał, frog. 112-11.  
 Fig. 4.— teún te' bağ, a bird. 72-11.  
 Fig. 5.— te' kak', net. 84-8.  
 Fig. 6.— teō bağ, poison. 163-7.  
 Fig. 7.— gō ya ne<sup>é</sup>, stars. 74-7.  
 Fig. 8.— kaç kits, old man. 108-2.  
 Fig. 9.— te' si teún, coyote. 72-1.  
 Fig. 10.— kwi yint, pigeon. 73-12.  
 Fig. 11.— k'un ta gits, jackrabbit. 73-6.  
 Fig. 12.— L tsō gūñ, fox. 73-3.  
 Fig. 13.— s taitc, cotton-tail rabbit. 155-12.  
 Fig. 14.— yis kan, day. 100-12.  
 Fig. 15.— yis t'öt', fog. 126-2.



EXPLANATION OF PLATE 19

NOUNS OF VERBAL ORIGIN

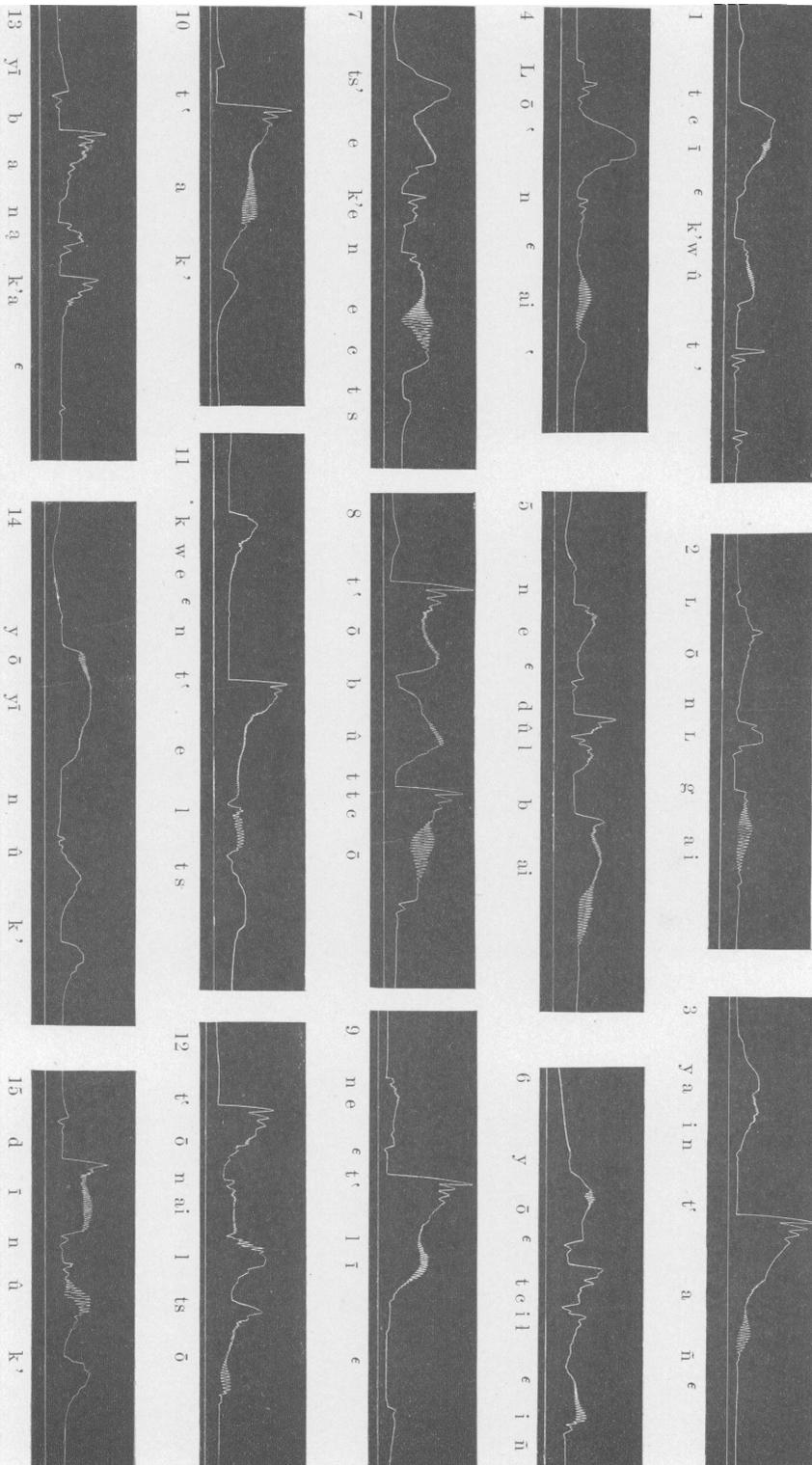
- Fig. 1.— na deLte, a small pine. 88-11.  
 Fig. 2.— bûL gûL gûs, fire-sticks. 110-11.  
 Fig. 3.— ba na t'ai, post of dance-house. 130-17.  
 Fig. 4.— t bûL, burden basket. 179-11.  
 Fig. 5.— dûL kûts, fawn. 108-9.  
 Fig. 6.— ts'ûs nō<sup>ε</sup>, mountain. 71-2.  
 Fig. 7.— te'n naL dûñ, adolescent girl. 109-9.  
 Fig. 8.— te'ga ts'e<sup>ε</sup>, twine. 116-10.  
 Fig. 9.— teal nî, mountain robin. 72-4.  
 Fig. 10.— te'ga', basket-pan. 113-10.  
 Fig. 11.— te'wōc tee<sup>ε</sup>, foam. 85-3.  
 Fig. 12.— kwûn teL bî<sup>ε</sup>, valley. 174-9.  
 Fig. 13.— teûn nûL teûnte, Lewis' woodpecker. 72-8.  
 Fig. 14.— be daiL teik teō, a woodpecker, "its head red large."



EXPLANATION OF PLATE 20

POLYSYLLABIC NOUNS

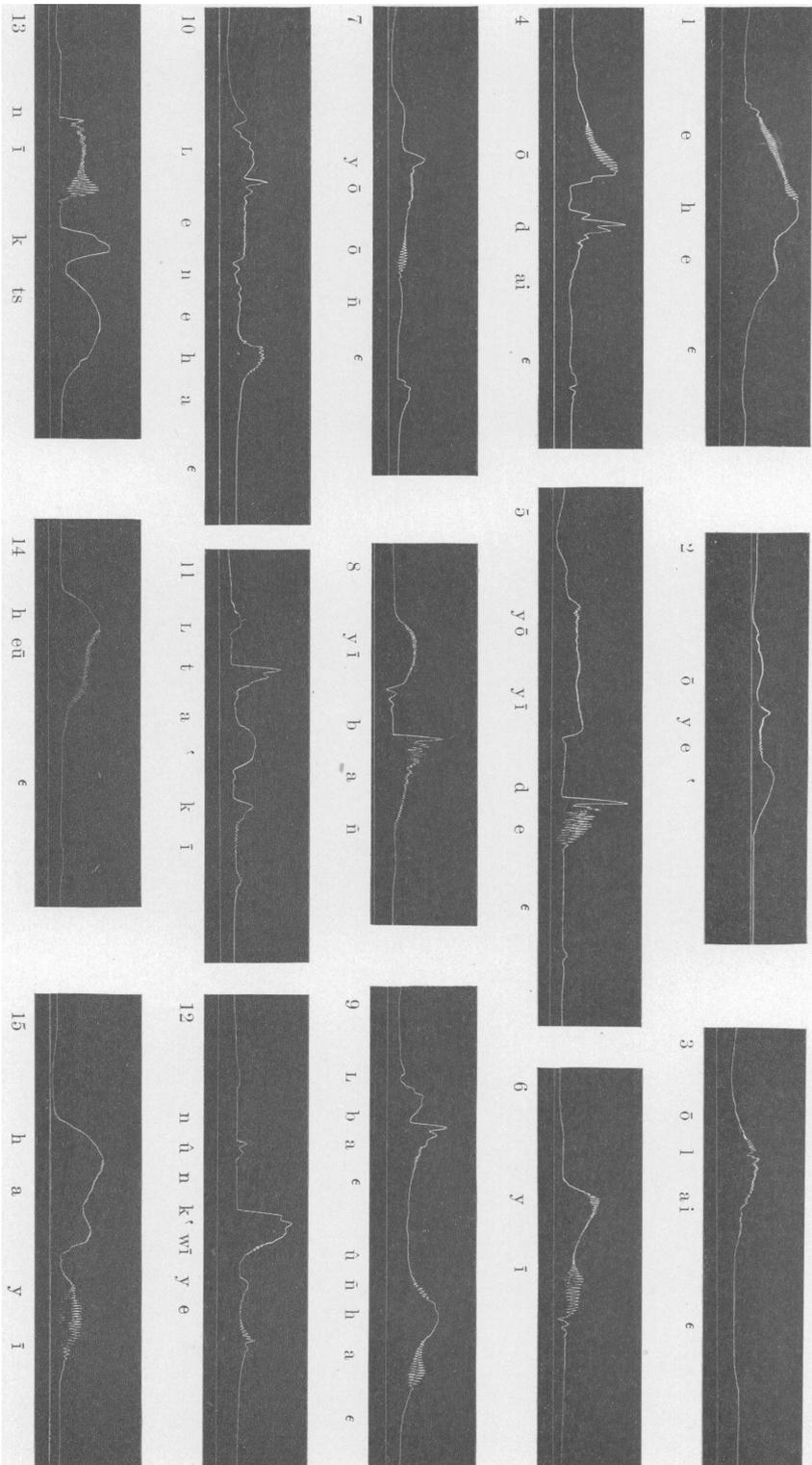
- Fig. 1.—ō tēi<sup>ε</sup> k'wūt', its tail on. 162-14.  
 Fig. 2.—Lōn Lgai, wood-rat, "rodent white." 73-9.  
 Fig. 3.—yai in tañ<sup>ε</sup>, mole. 96-6.  
 Fig. 4.—Lō' n<sup>ε</sup>ai, grass game. 146-11.  
 Fig. 5.—ne<sup>ε</sup> dūl bai, a pine. 86-13.  
 Fig. 6.—yō<sup>ε</sup> teil<sup>ε</sup>iñ, abalone. 124-17.  
 Fig. 7.—ts'e k'e nects, day eel, "navel long." 91-2.  
 Fig. 8.—tō bāt teō, water-panther. 177-13.  
 Fig. 9.—ne<sup>ε</sup> te li<sup>ε</sup>, earthquake.  
 Fig. 10.—tak', three. 101-4.  
 Fig. 11.—kwe<sup>ε</sup> n telts, black-crowned night heron, "foot broad."  
 Fig. 12.—tō nai l tsō, blue cat-fish(?), "fish blue." 124-15.  
 Fig. 13.—yī ban nək ka<sup>ε</sup>, seven, "beyond two." 166-1.  
 Fig. 14.—yō yī nūk', way south. 75-6.  
 Fig. 15.—dī nūk', south. 75-6.



EXPLANATION OF PLATE 21

ADVERBS, PARTICLES, ETC.

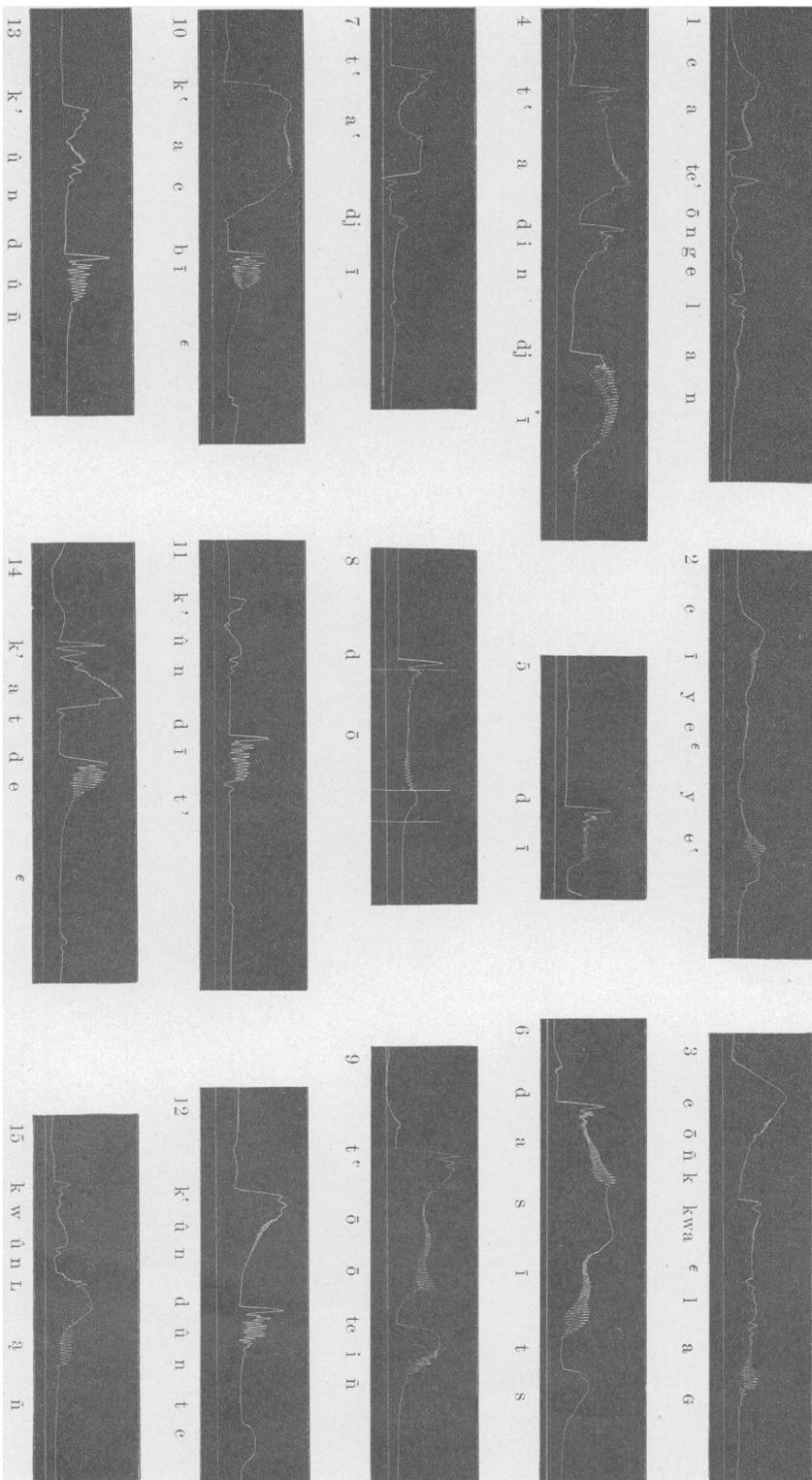
- Fig. 1.— e he<sup>ε</sup>, so it is. 173-14.  
 Fig. 2.— o ye<sup>ε</sup>, under it. 101-6.  
 Fig. 3.— o lai<sup>ε</sup>, its top, on it. 103-13.  
 Fig. 4.— o dai<sup>ε</sup>, outside. 98-4.  
 Fig. 5.— yō yi de<sup>ε</sup>, way north. 77-1.  
 Fig. 6.— yī, right here.  
 Fig. 7.— yō oñ, over there, further. 127-14.  
 Fig. 8.— yī bañ, other side. 133-4.  
 Fig. 9.— L ba<sup>ε</sup>ūñ ha<sup>ε</sup>, both sides. 75-7.  
 Fig. 10.— Le ne ha<sup>ε</sup>, all. 83-4.  
 Fig. 11.— L ta<sup>ε</sup> kī, different kinds. 83-1.  
 Fig. 12.— nūn kwi ye, underground. 75-8.  
 Fig. 13.— nīkts, slowly. 140-16.  
 Fig. 14.— he ū<sup>ε</sup>, yes. 82-2.  
 Fig. 15.— ha yi, those people. 171-19.



EXPLANATION OF PLATE 22

PRONOUNS, ADVERBS, ETC.

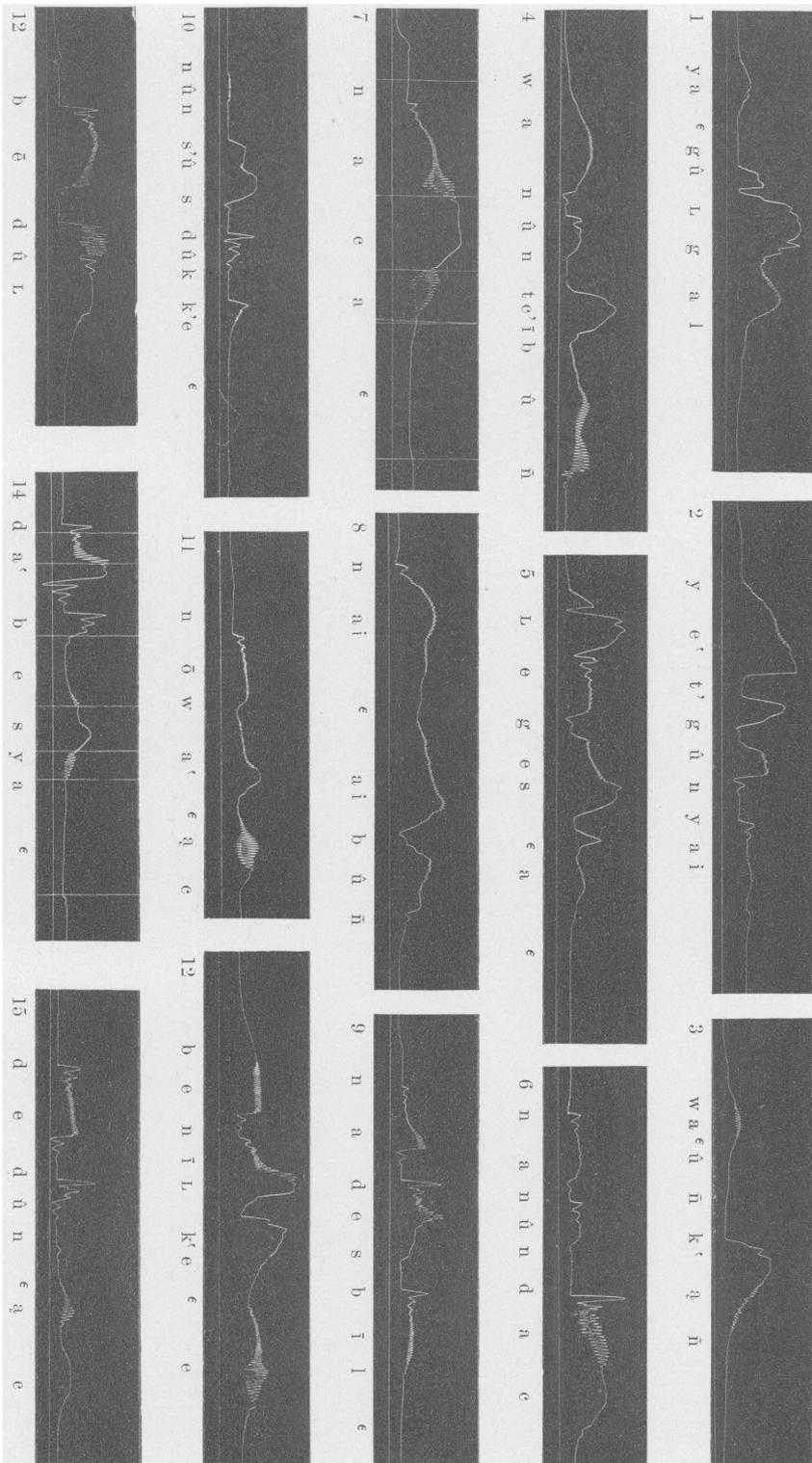
- Fig. 1.— ca te'õn ge lan, he got for me.  
 Fig. 2.— eī ye' ye', my house. 141-6.  
 Fig. 3.— cõnk kwa' laq, he did well. 104-6; 154-5.  
 Fig. 4.— ta din dji, what for?  
 Fig. 5.— di, this. 74-9.  
 Fig. 6.— da s̄its, soon. 136-5.  
 Fig. 7.— ta'dji, where? 182-3.  
 Fig. 8.— dõ, not. 79-4.  
 Fig. 9.— tõ õ teiñ a, water in front of. 77-7.  
 Fig. 10.— kac bi', tomorrow. 104-9.  
 Fig. 11.— k'ûn d̄it', some days ago. 137-5.  
 Fig. 12.— kûn d̄unte, close by. 79-6.  
 Fig. 13.— k'ûn d̄ũ, yesterday. 128-7.  
 Fig. 14.— k'at de', soon. 96-4.  
 Fig. 15.— kwûn Lañ, enough. 77-8.



EXPLANATION OF PLATE 23

PREFIXES OF VERBS

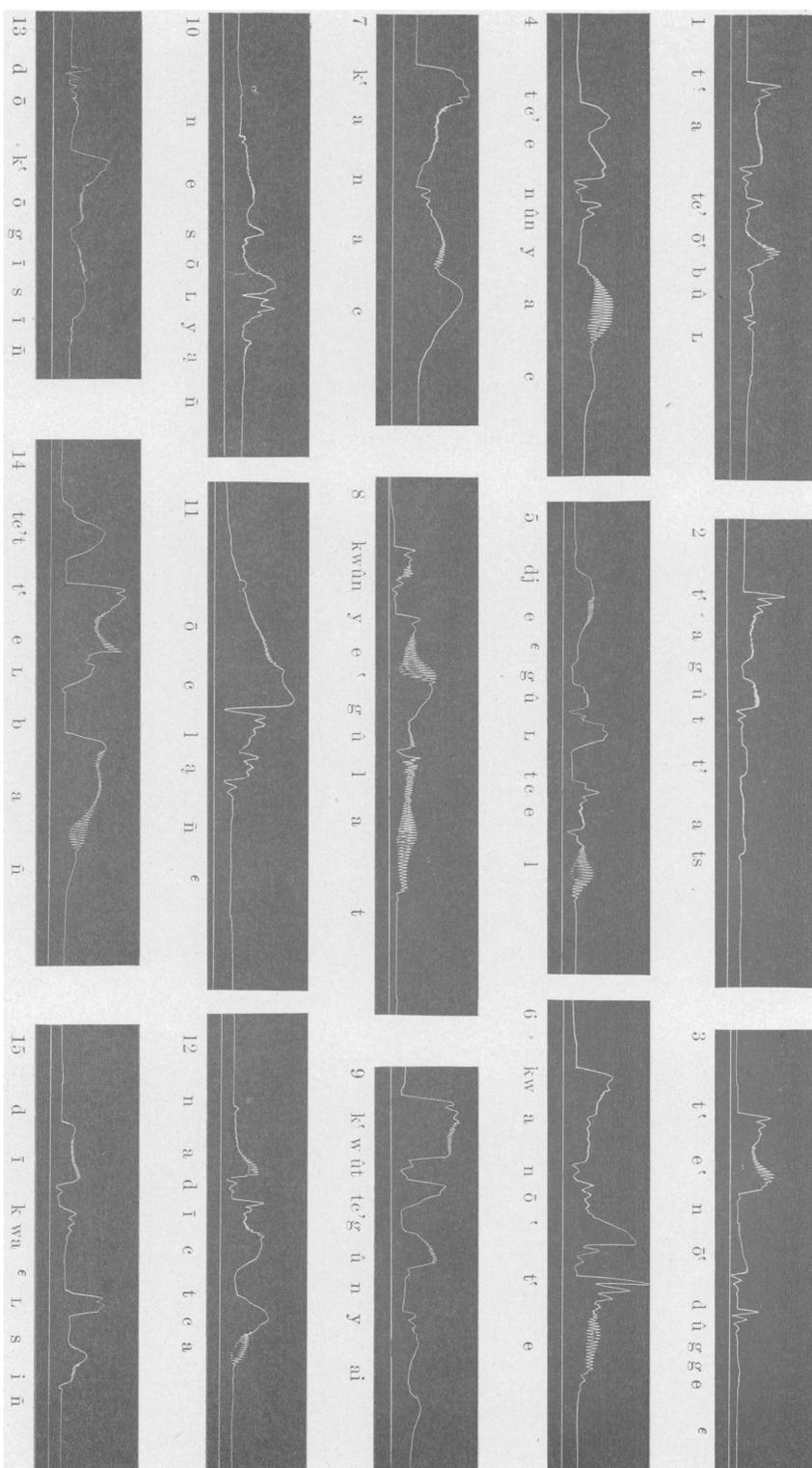
- Fig. 1.— *ya' gûl gal*, he threw up. 142-3.  
 Fig. 2.— *ye' te' gûn yai*, he went in. 132-13.  
 Fig. 3.— *wa' ûñ kañ*, she gave him. 129-4.  
 Fig. 4.— *wa nûn tei bûñ*, it will blow through. 80-14.  
 Fig. 5.— *Le ges 'a'*, it was encircling. 82-15.  
 Fig. 6.— *na nûn dae*, come down.  
 Fig. 7.— *na ca'*, I go about. 133-6.  
 Fig. 8.— *nai 'ai bûñ*, it will be across.  
 Fig. 9.— *na des bîl'*, he spilled. 123-2.  
 Fig. 10.— *nûn s'ûs dûk k'e'*, he got up. 98-5.  
 Fig. 11.— *nô ga 'aç*, he put along. 86-11.  
 Fig. 12.— *be nîl ke' e*, I have finished. 82-15.  
 Fig. 13.— *bê dûl*, let us climb.  
 Fig. 14.— *da' bes ya'*, he climbed up. 180-6.  
 Fig. 15.— *de dûñ 'aç*, you put on the fire. 131-9.



EXPLANATION OF PLATE 24

PREFIXES OF VERBS

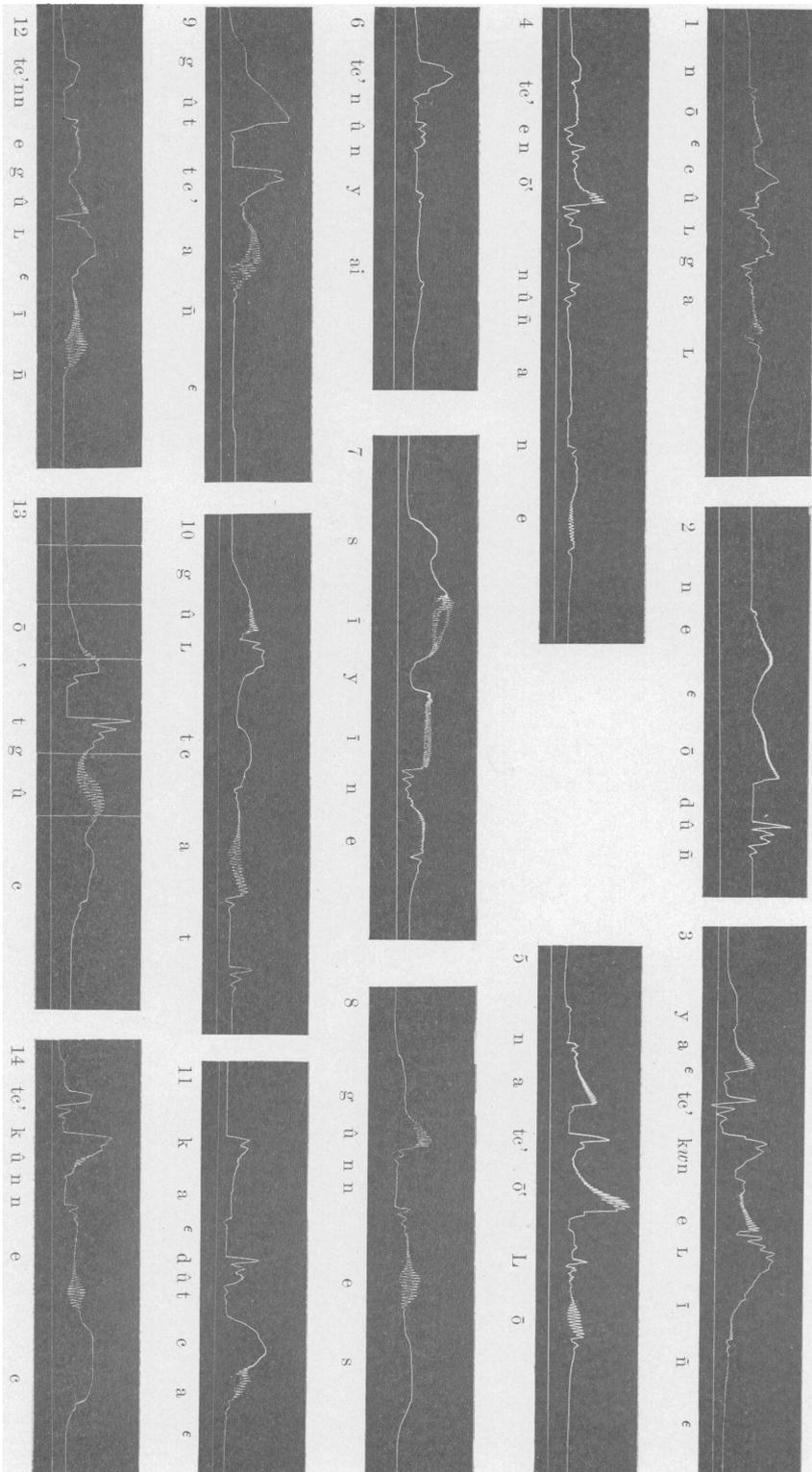
- Fig. 1.— ta t'e'ô bûL, make soup (plu.). 123-13.  
 Fig. 2.— ta gû't'ats, they butchered. 175-4.  
 Fig. 3.— te' n'ô d'ûg ge<sup>ε</sup>, we will put in water. 139-9.  
 Fig. 4.— te'e n'ûn yac, come out.  
 Fig. 5.— d'je<sup>ε</sup> g'ûl t'cel, she split open. 129-3.  
 Fig. 6.— kwa n'ô' te, look for it. 164-11.  
 Fig. 7.— ka nac, it came up. 81-2.  
 Fig. 8.— kw'ûn ye' g'ûl lat, it sank. 174-12.  
 Fig. 9.— kw'û't te' g'ûn yai, he went down. 116-5.  
 Fig. 10.— ne s'ôL y'âñ, you (plu.) ate up. 136-16.  
 Fig. 11.— ôc l'âñ<sup>ε</sup>, I will get. 137-2.  
 Fig. 12.— na dic t'ca, let me eat a meal.  
 Fig. 13.— d'ô k'ô g'is i'ñ, one couldn't see. 81-1.  
 Fig. 14.— te't t'el b'añ, he walked lame. 133-6.  
 Fig. 15.— di kwa<sup>ε</sup>L s'iñ, he did this way. 79-12.



EXPLANATION OF PLATE 25

VERBAL PREFIXES, SUBJECTIVES AND OBJECTIVES

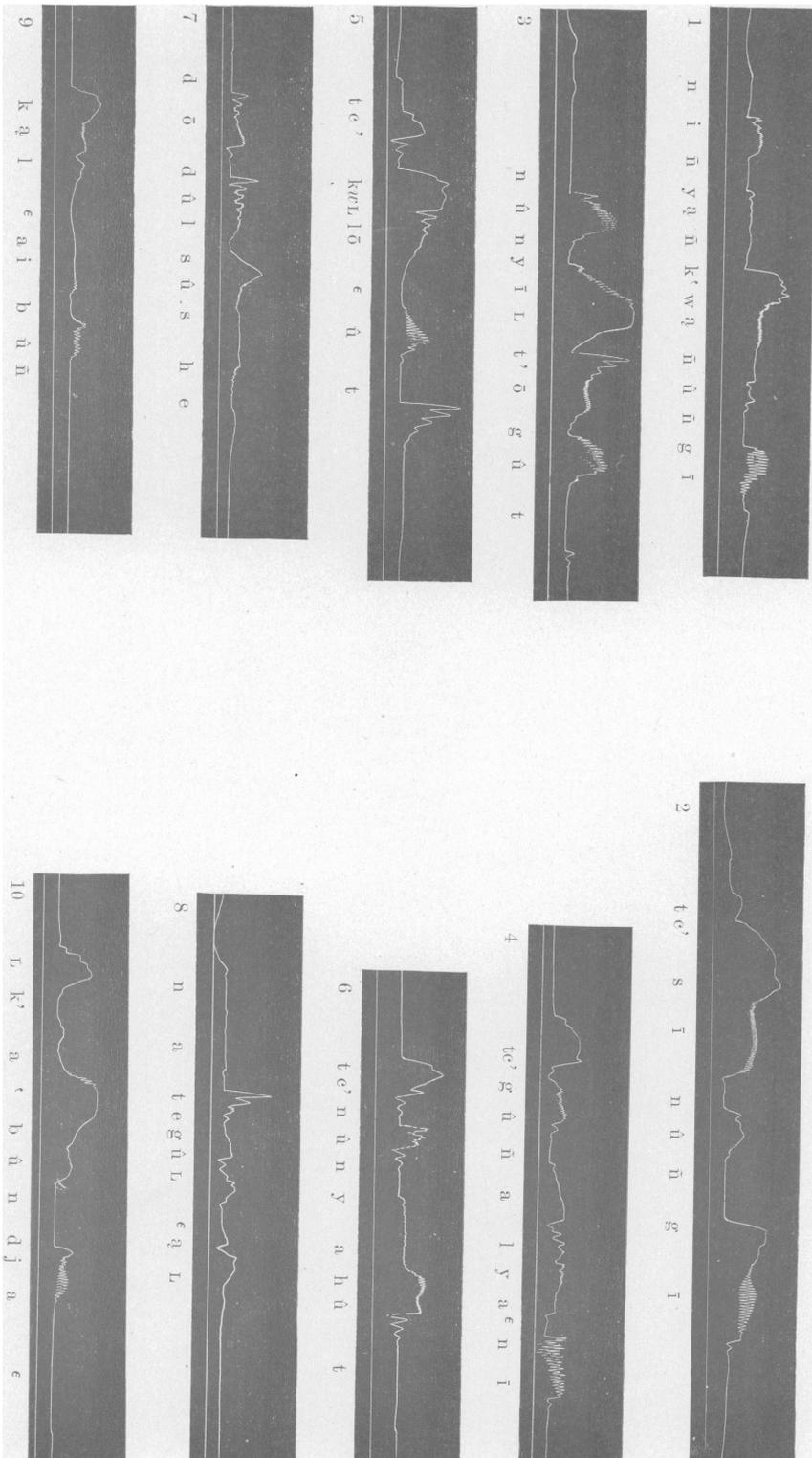
- Fig. 1.— nō<sup>ε</sup> cūL gaL, throw me. 133-4.  
 Fig. 2.— ne<sup>ε</sup> ð dūñ, you will die. 177-4.  
 Fig. 3.— ya<sup>ε</sup> te' kw neL iñ<sup>ε</sup>, they saw him.  
 Fig. 4.— te'e nō' nūñ a ne, he killed us. 117-6.  
 Fig. 5.— na te'ð' Lō, set snares (plu. imp.). 108-2.  
 Fig. 6.— te' nūñ yai, he came there. 142-14.  
 Fig. 7.— sī yī ne, I stand.  
 Fig. 8.— gūn nes, it became long. 87-1.  
 Fig. 9.— gūt te'añ<sup>ε</sup>, he shot. 110-13.  
 Fig. 10.— gūL teat, he shouted. 165-9.  
 Fig. 11.— ka<sup>ε</sup> dūt tea<sup>ε</sup>, well, let us bury. 149-7.  
 Fig. 12.— te'n ne gūL<sup>ε</sup> iñ, he looked at it. 156-16.  
 Fig. 13.— ð't gūc, look at them. 164-9.  
 Fig. 14.— te' kūn nec, he talked. 160-1.



EXPLANATION OF PLATE 26

VERBAL SUFFIXES

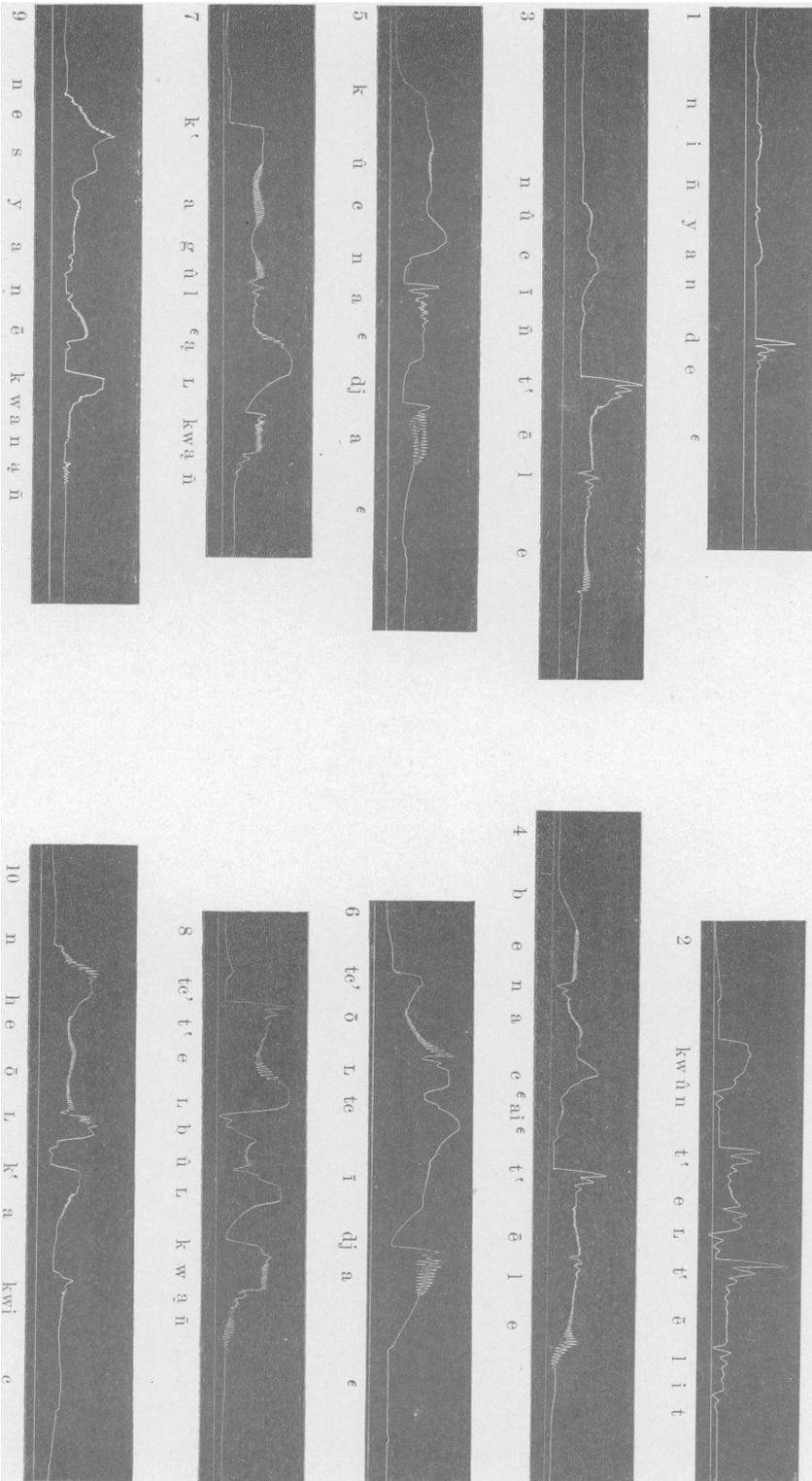
- Fig. 1.— *nin yañ kwañ ûñ gī*, it has cleared off. 168-1.  
 Fig. 2.— *te' sīñ ûñ gī*, he is standing.  
 Fig. 3.— *nûn yiL t'ô gût*, when he stung. 156-15.  
 Fig. 4.— *te' gûñ al<sup>e</sup> ya<sup>e</sup> nī*, he chewed it they say. 109-7.  
 Fig. 5.— *te' kwL lô<sup>e</sup> ût*, when he fooled them. 136-14.  
 Fig. 6.— *te' nûn ya hût*, when he came.  
 Fig. 7.— *dô dûl sús* he, we did not see. 116-18.  
 Fig. 8.— *na te gûL<sup>e</sup> aL*, he stood them up along. 88-13.  
 Fig. 9.— *kaj<sup>e</sup> ai bûñ*, it will grow up. 84-11.  
 Fig. 10.— *L k'a' bûn dja<sup>e</sup>*, let it be fat. 85-14.



EXPLANATION OF PLATE 27

SUFFIXES OF VERBS

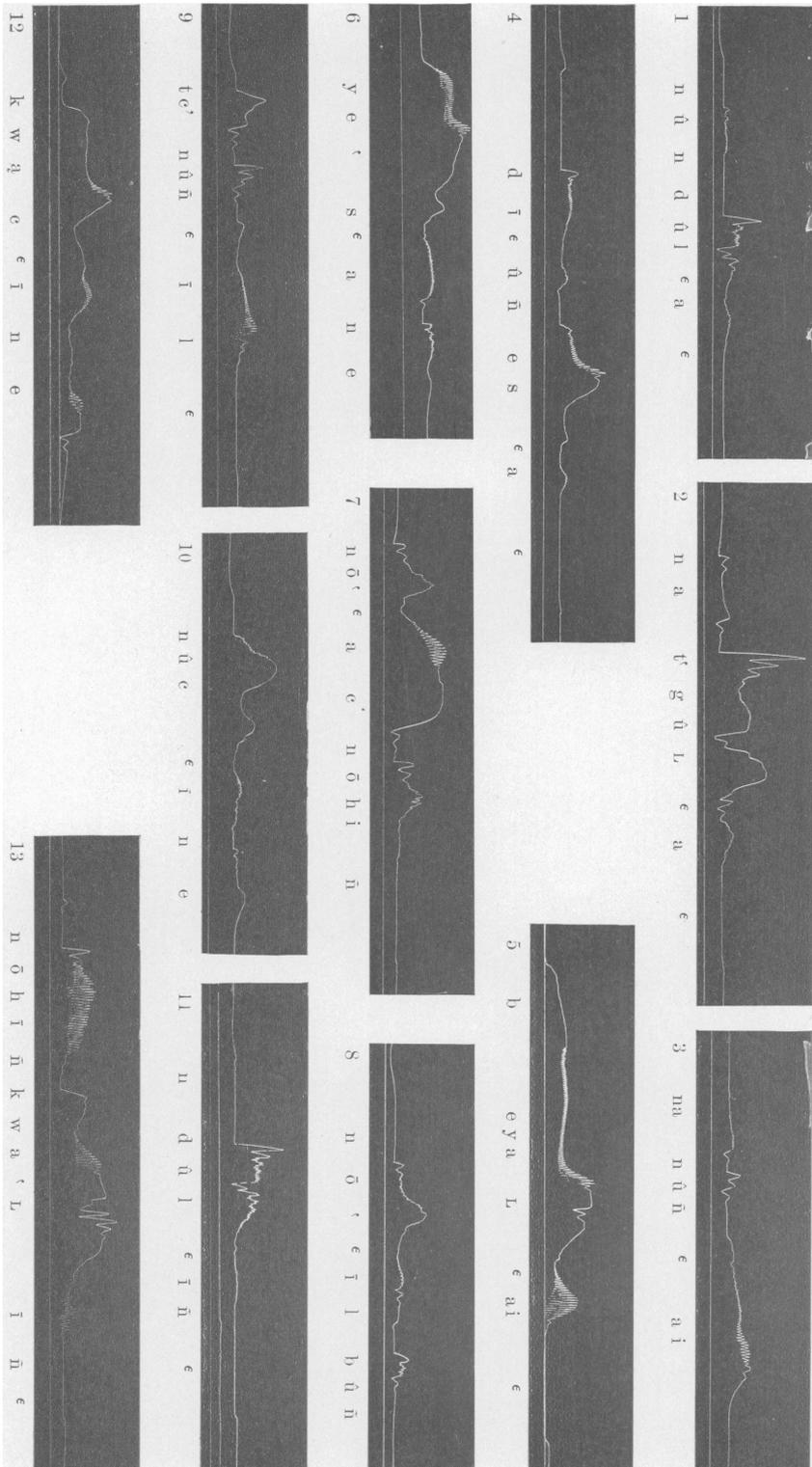
- Fig. 1.— niñ yan de<sup>ε</sup>, when it cleared off. 167-17.  
 Fig. 2.— kwân tel tē lit, it was becoming flat. 107-3.  
 Fig. 3.— nûc iñ<sup>ε</sup> tē le, I will look. 165-4.  
 Fig. 4.— be nac <sup>ε</sup>ai<sup>ε</sup> tē le, I will try it again. 139-1.  
 Fig. 5.— kûc na<sup>ε</sup> dja<sup>ε</sup>, I want to live. 171-7.  
 Fig. 6.— te'ôL tci dja<sup>ε</sup>, let him make. 140-2.  
 Fig. 7.— ka gûL <sup>ε</sup>qL kwañ, they had sprung up along. 87-13.  
 Fig. 8.— te' tel bûL kwañ, he had hung up. 176-3.  
 Fig. 9.— nes ya nē kwa nqñ, they were ripe. 94-4.  
 Fig. 10.— n he ôL ka kwic, we will spend the night probably. 105-3.



EXPLANATION OF PLATE 28

VERBAL STEMS

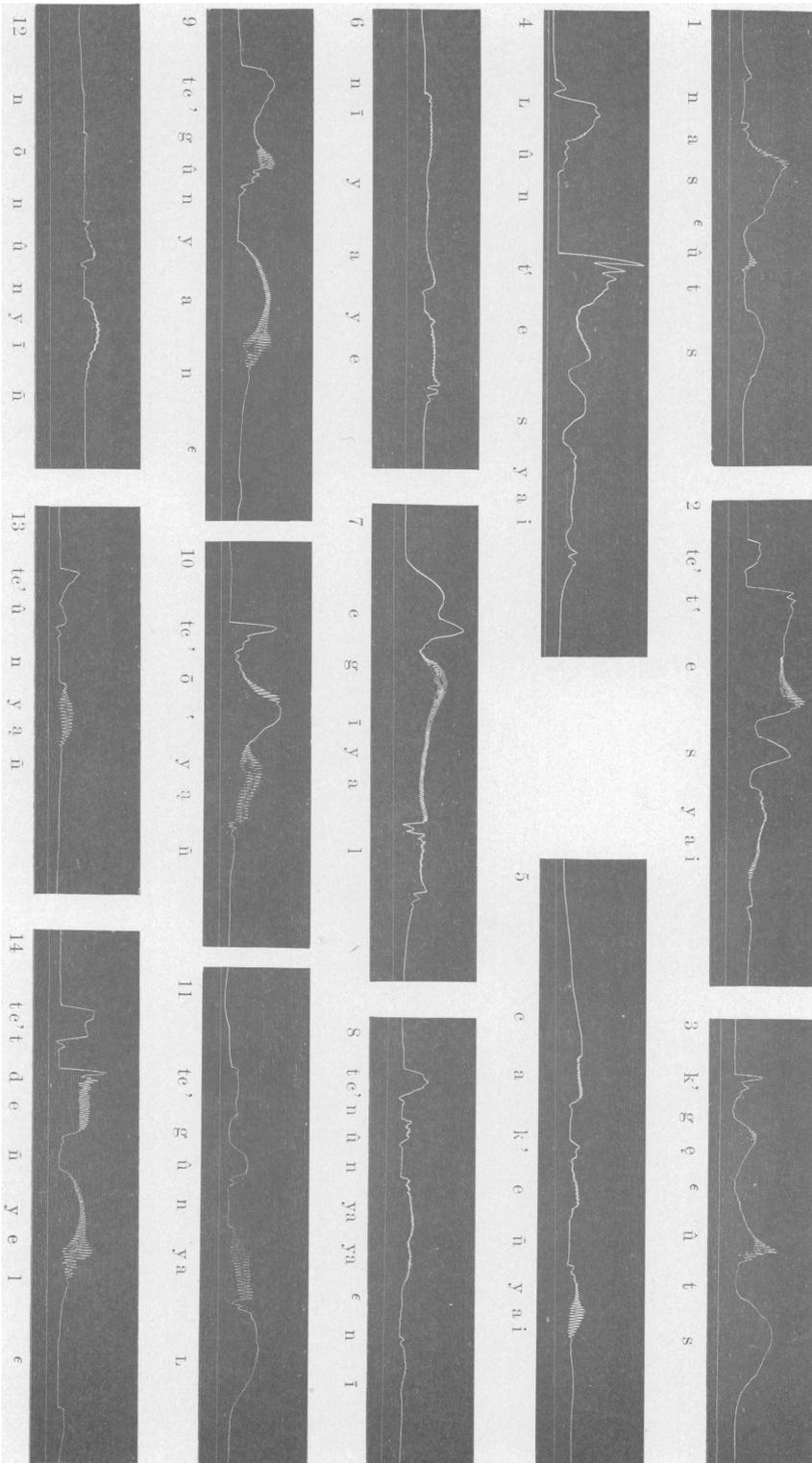
- Fig. 1.— *nən dūl 'a'*, let us make a dam. 163-11.  
 Fig. 2.— *na t gūL 'a'*, he stood it up. 76-6.  
 Fig. 3.— *na nūñ 'ai'*, a fish-weir. 133-9.  
 Fig. 4.— *dī 'ūn es 'a'*, up there in a row. 109-10.  
 Fig. 5.— *be yaL 'ai'*, they tried it. 85-2.  
 Fig. 6.— *ye' s'a ne*, house stands. 141-5.  
 Fig. 7.— *nō' 'ac nō hiñ*, put, you (plu.). 110-11.  
 Fig. 8.— *nō' 'il būñ*, you must stay (plu.). 105-2.  
 Fig. 9.— *te' nūñ 'il'*, they sat down. 170-8.  
 Fig. 10.— *nūc 'i ne*, I saw it. 137-1.  
 Fig. 11.— *n dūl 'iñ'*, let us look. 168-1.  
 Fig. 12.— *kwəc 'i ne*, I always do that.  
 Fig. 13.— *nō hiñ kwa'Liñ'*, you (plu.) do that. 113-4.



EXPLANATION OF PLATE 29

VERBAL STEMS

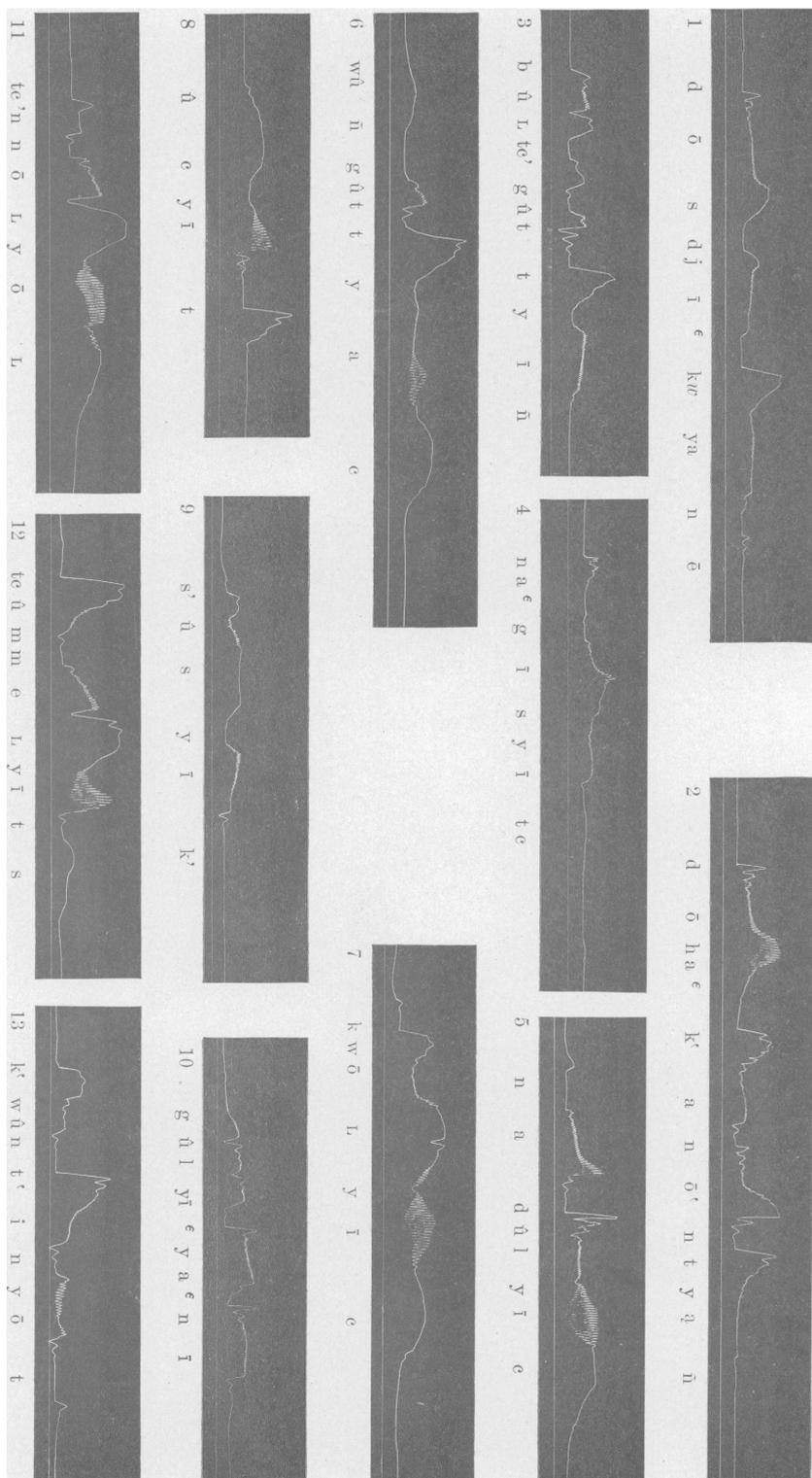
- Fig. 1.— nas ʼûts, he ran about. 134-3.  
 Fig. 2.— te' tes yai, he went. 116-9.  
 Fig. 3.— k' gɛ ʼûts, he was shooting along. 144-10.  
 Fig. 4.— lûn tes yai, they came together.  
 Fig. 5.— ca k'eñ yai, sun went down.  
 Fig. 6.— nī ya ye, I came there. 136-17.  
 Fig. 7.— e gī yal, I am sleepy. 164-4.  
 Fig. 8.— te' nûn ya ya ʼnī, he came there they say. 101-10.  
 Fig. 9.— te' gûn yan ʼ, he ate of it. 129-5.  
 Fig. 10.— te'õ' yañ, you (plu.) eat. 148-6.  
 Fig. 11.— te' gûn yal, walk (sing. imp.).  
 Fig. 12.— nō nûn yīñ, they were living. 160-12.  
 Fig. 13.— te'ûn yañ, you eat (sing. imp.). 125-7.  
 Fig. 14.— te't deñ ŋel ʼ, he stopped crying. 148-4.



EXPLANATION OF PLATE 30

VERBAL STEMS

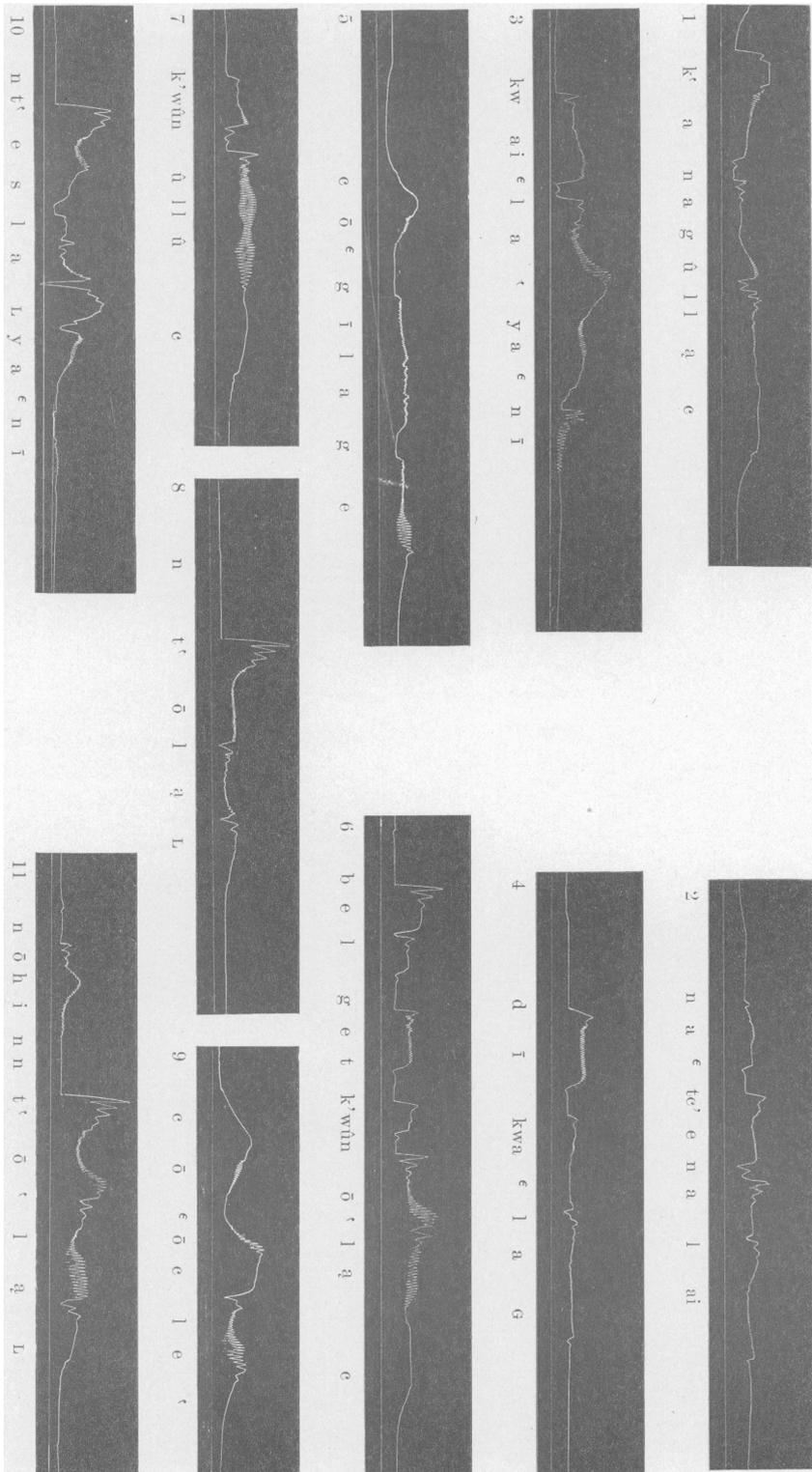
- Fig. 1.—*dō s dji<sup>ε</sup> kw ya nē*, I do not like him. 136-13.  
 Fig. 2.—*dō ha<sup>ε</sup> ka nōn t yañ*, do not be ashamed. 141-8.  
 Fig. 3.—*būl tē' gūt yīñ*, he doctored.  
 Fig. 4.—*na<sup>ε</sup> gīs yite*, he rested. 161-4.  
 Fig. 5.—*na dūlyic*, let us rest. 140-18.  
 Fig. 6.—*wūñ gūt t yac*, some become old. 107-11.  
 Fig. 7.—*kwōL yic*, he whistled.  
 Fig. 8.—*ūc yīt*, I will make a house. 168-6.  
 Fig. 9.—*s'ūs yī<sup>ε</sup>*, he made a house. 168-7.  
 Fig. 10.—*gūlyī<sup>ε</sup> ya<sup>ε</sup> nī*, he built a house they say. 83-11.  
 Fig. 11.—*te'n nōL yōL*, let it blow. 80-13.  
 Fig. 12.—*teūm meL yīs*, a stick he tied. 169-5.  
 Fig. 13.—*kwūn tin yōt*, they ran after him.



EXPLANATION OF PLATE 31

VERBAL STEMS

- Fig. 1.—ka na gûl ləç, she digs out.  
 Fig. 2.—(û) na<sup>ε</sup> te'e na lai, her eye she took out. 152-9.  
 Fig. 3.—kwai<sup>ε</sup> la<sup>ε</sup> ya<sup>ε</sup> ni, he did it they say.  
 Fig. 4.—di kwa<sup>ε</sup> laç, he did this way. 154-5.  
 Fig. 5.—cô<sup>ε</sup> gi la ge, I fixed it good. 76-12.  
 Fig. 6.—bel get k'wûn nō'ləç, spear point put it on (pl. imp.). 133-8.  
 Fig. 7.—k'wûn nûl lûc, put it on (sing. imp.).  
 Fig. 8.—n tō ləL, let him sleep.  
 Fig. 9.—cô<sup>ε</sup> ôc le', I will fix good. 77-3.  
 Fig. 10.—n tes laL ya<sup>ε</sup> ni, he went to sleep they say. 83-4.  
 Fig. 11.—nō hin n tō'ləL, you (plu.) go to sleep. 110-16.



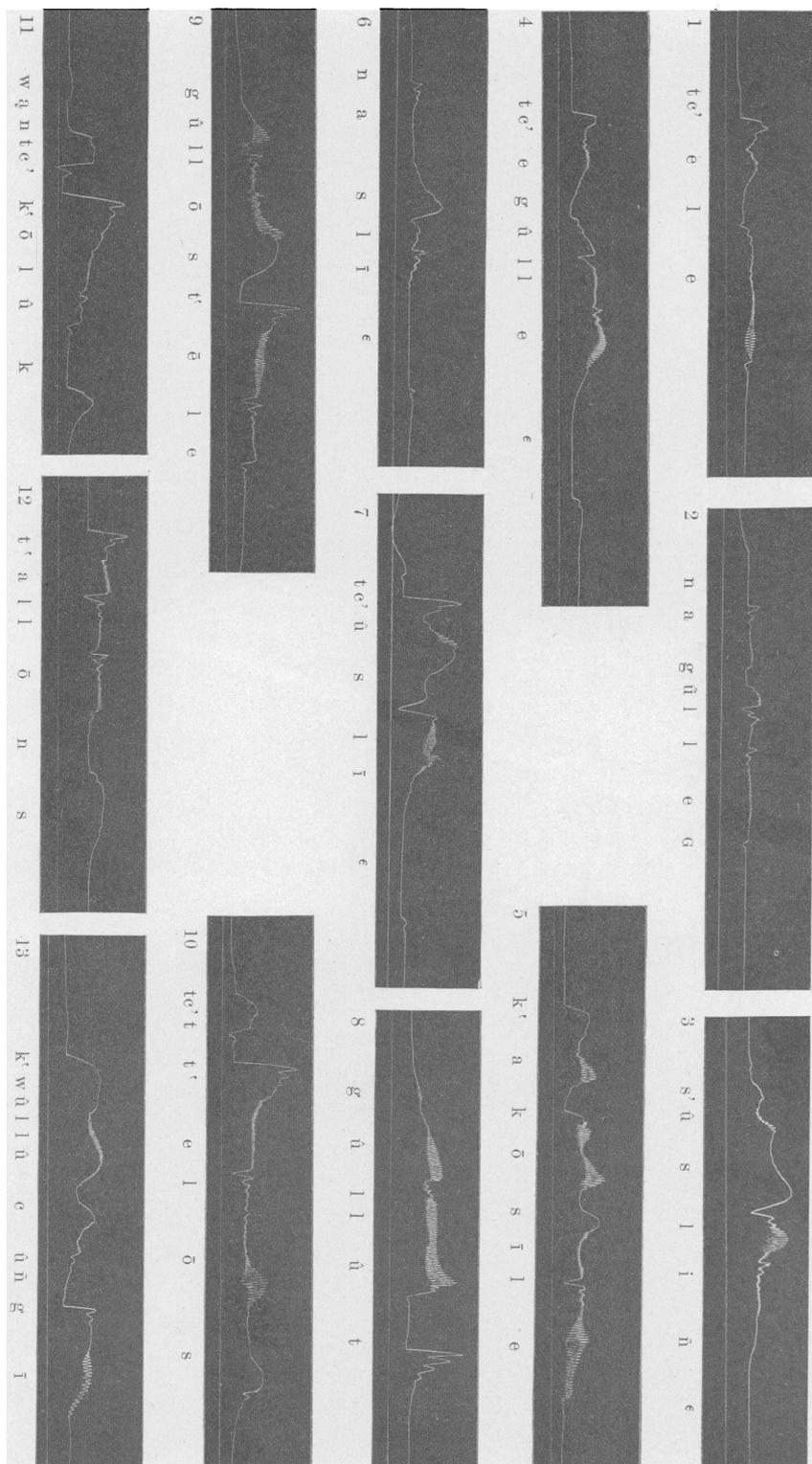
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[GORDON] PL. 31

EXPLANATION OF PLATE 32

VERBAL STEMS

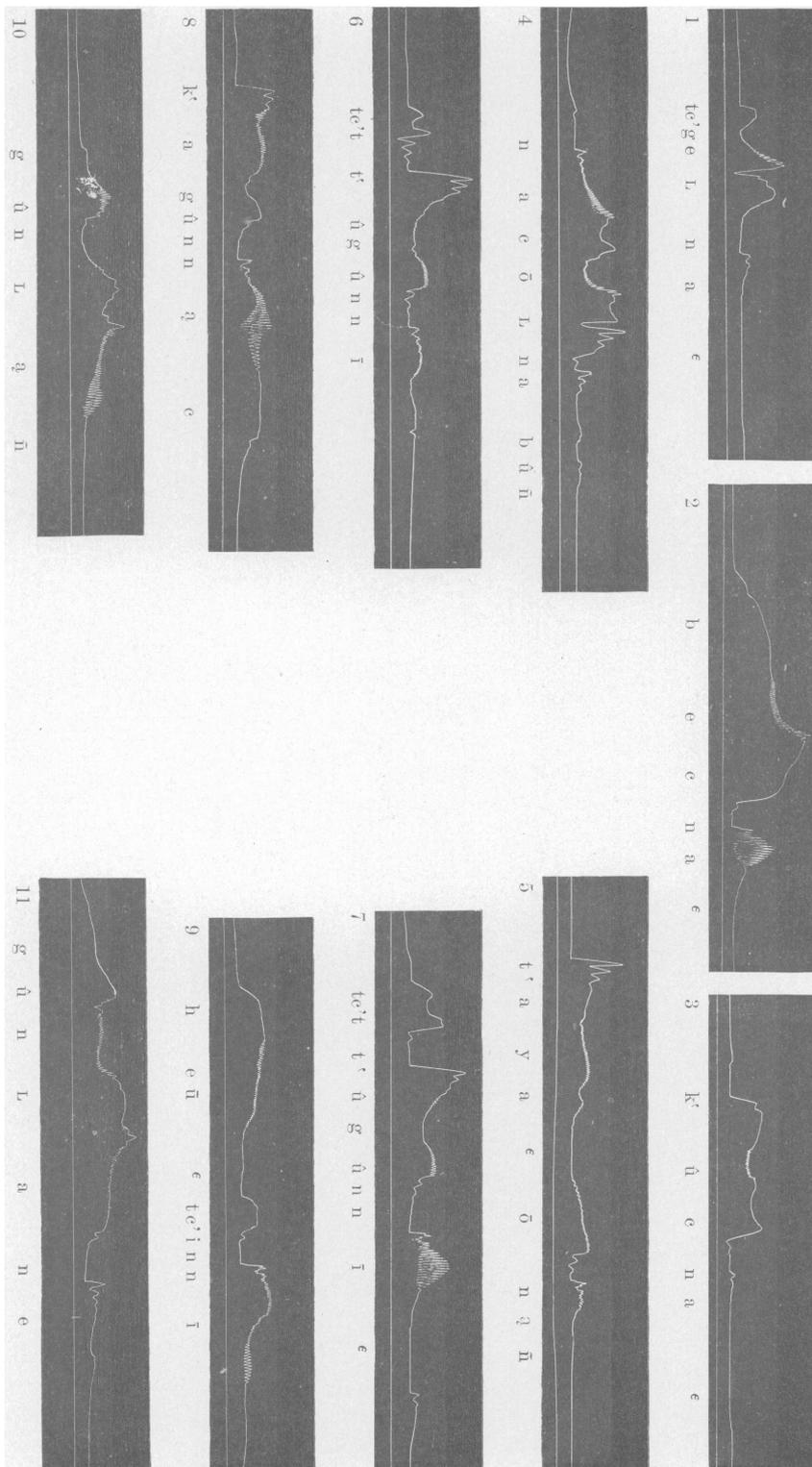
- Fig. 1.— *te'el le<sup>ε</sup>*, he sang. 149-11.  
 Fig. 2.— *na gûl le<sup>ε</sup>*, fish were swimming down. 128-12.  
 Fig. 3.— *s'ûs li<sup>ε</sup>*, he became. 84-11.  
 Fig. 4.— *te'e gûl le<sup>ε</sup>*, he commenced singing. 105-11.  
 Fig. 5.— *ka kô sî le*, I am sick.  
 Fig. 6.— *nas li<sup>ε</sup>*, he tied up. 145-7.  
 Fig. 7.— *te'ûs li<sup>ε</sup>*, he caught in a noose. 108-4.  
 Fig. 8.— *gûl lût*, it was burning. 173-16.  
 Fig. 9.— *gûl lôs tē le*, you will bring. 136-5.  
 Fig. 10.— *te't te lôs*, pulled repeatedly. 175-2.  
 Fig. 11.— *wan te' kô lûk*, he told about it. 161-18.  
 Fig. 12.— *tal lôns*, soft. 179-12.  
 Fig. 13.— *kwûl lûc ûn gi*, it looks like. 170-14.



EXPLANATION OF PLATE 33

VERBAL STEMS

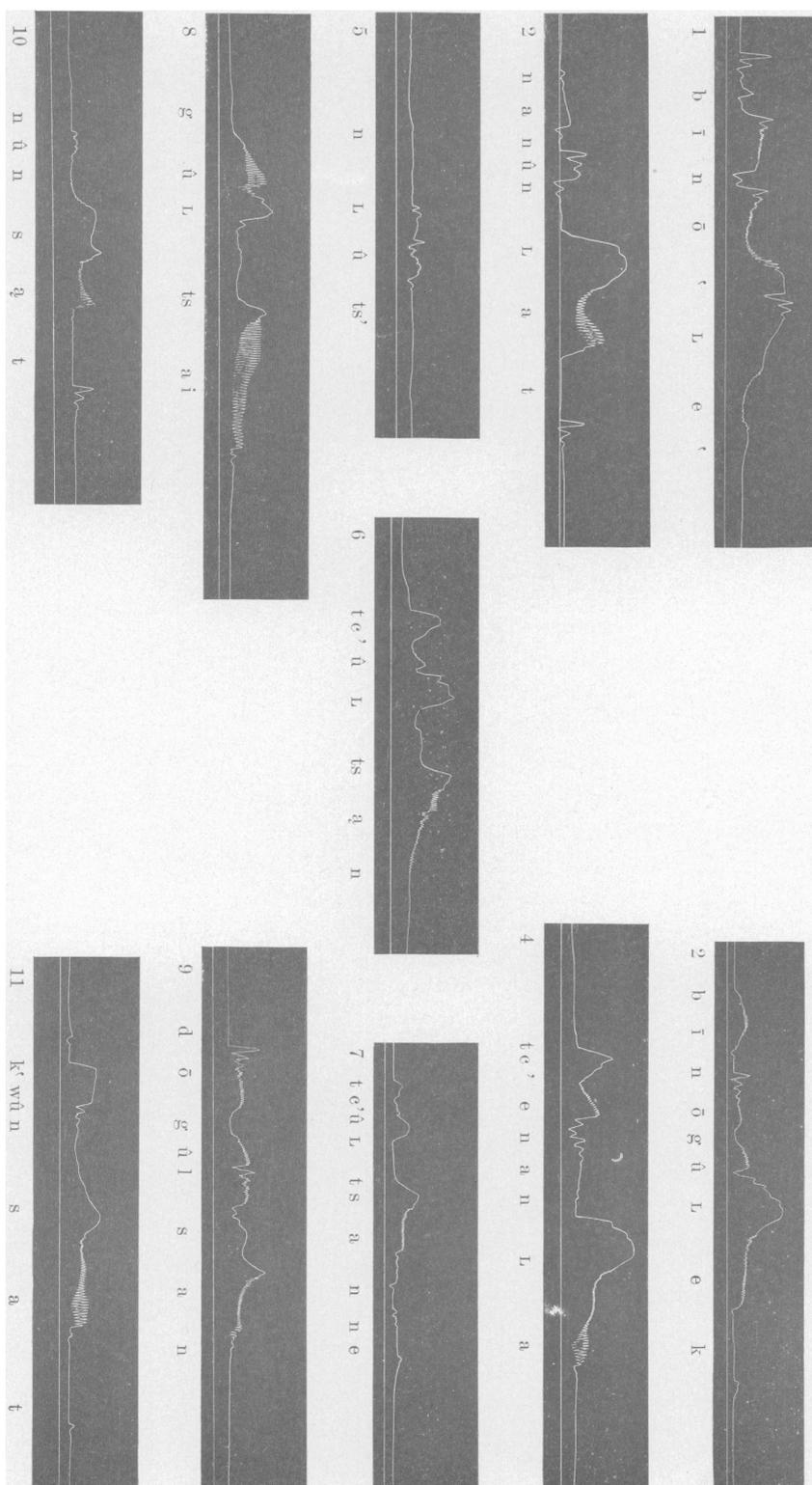
- Fig. 1.— *te'geL na<sup>ε</sup>*, he roasted.  
 Fig. 2.— *bec na<sup>ε</sup>*, I will roast. 168-16.  
 Fig. 3.— *kûc na<sup>ε</sup>*, I want to live. 182-5.  
 Fig. 4.— *na cōL na būñ*, you must examine me. 166-10.  
 Fig. 5.— *ta ya<sup>ε</sup> ō nañ*, let them drink. 123-6.  
 Fig. 6.— *te't tûg gûn nî*, it makes a noise.  
 Fig. 7.— *te't tûg gûn nî*, it thundered. 77-10.  
 Fig. 8.— *ka gûn naç*, he came up. 75-2.  
 Fig. 9.— *he ũ<sup>ε</sup> te'n nî*, yes he said. 82-2; 102-8.  
 Fig. 10.— *gûn Lạñ*, became many. 83-14.  
 Fig. 11.— *gûn La ne*, have become many. 169-10.



EXPLANATION OF PLATE 34

VERBAL STEMS

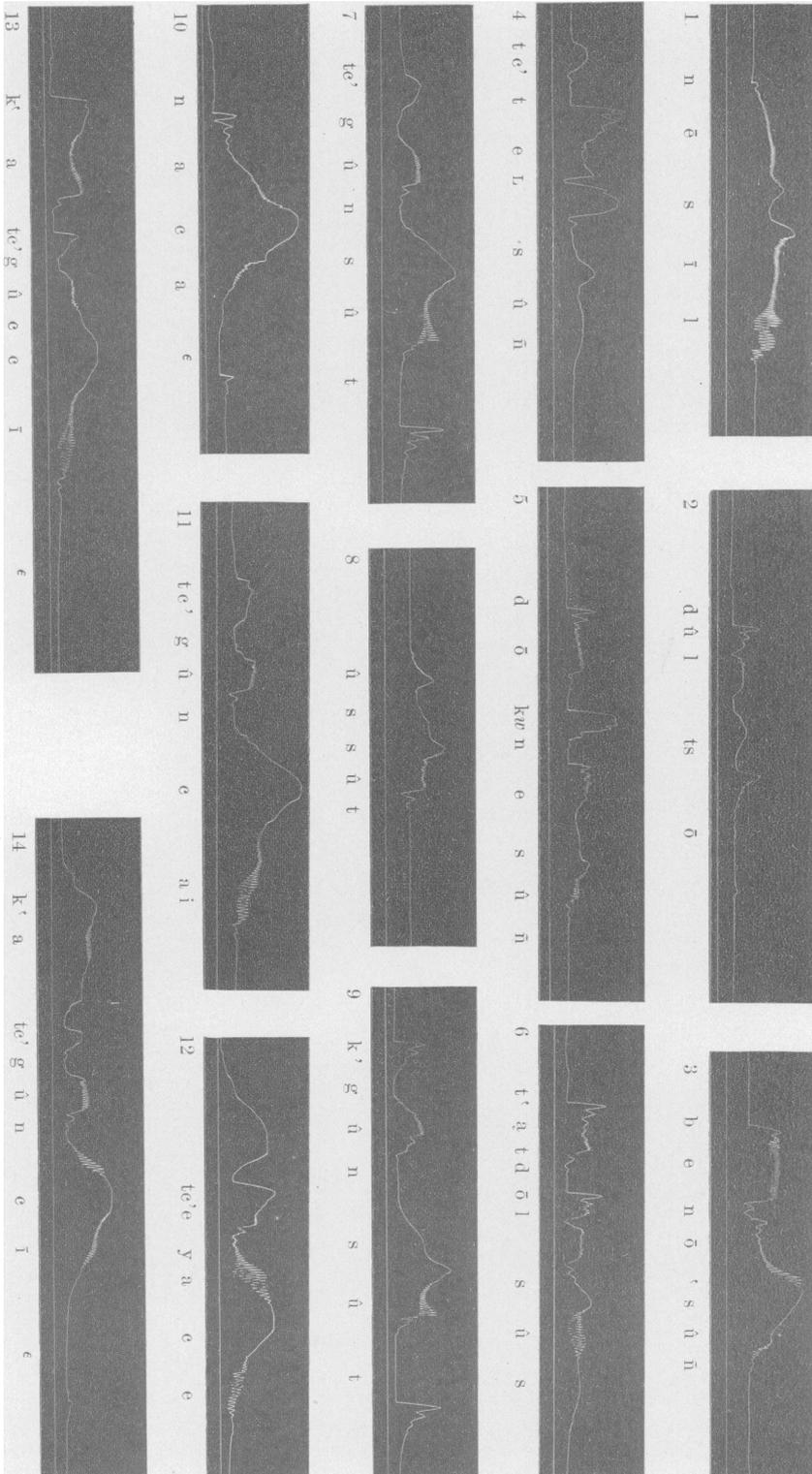
- Fig. 1.— *bī nō' Le'*, soak them (imp. plu.). 110-6.  
 Fig. 2.— *bī nō gūL Lek*, they soaked them. 179-1.  
 Fig. 3.— *na nūn Lat*, jump across. (imp. sing.).  
 Fig. 4.— *te'e nan La*, he ran out. 142-6.  
 Fig. 5.— *n Lūts*, it is stout. 78-12.  
 Fig. 6.— *te'ûL tsan*, he found. 97-4.  
 Fig. 7.— (*dō ha<sup>ε</sup>*) *te'ûL tsa ne*, he did not find.  
 Fig. 8.— *gūL tsai*, it was dry. 123-4.  
 Fig. 9.— *dō gūL san*, it was never found. 179-6.  
 Fig. 10.— *nūn saṭ*, sit down (sing. imp.). 140-18.  
 Fig. 11.— *kwûn sat*, deep water. 74-10.



EXPLANATION OF PLATE 35

VERBAL STEMS

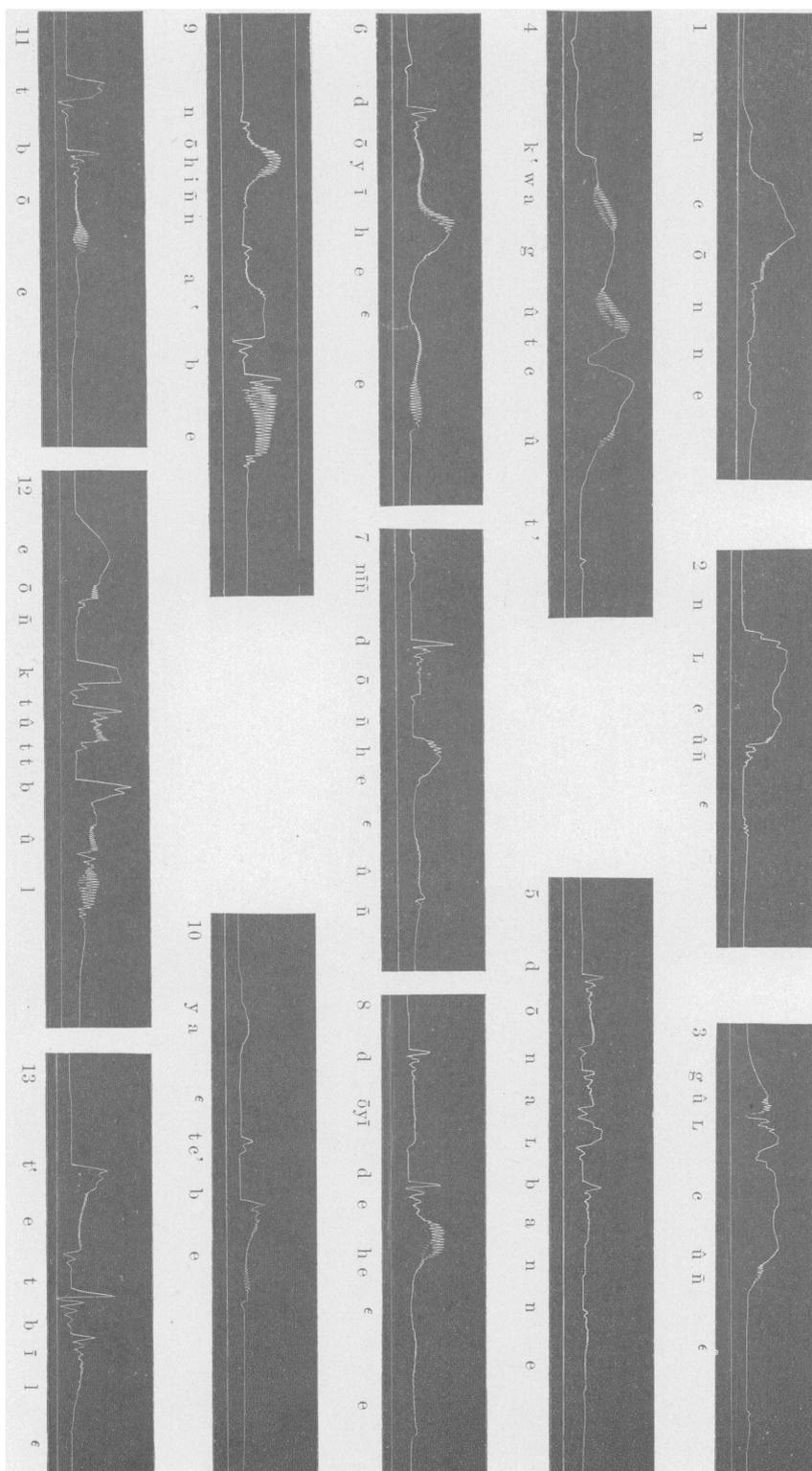
- Fig. 1.— *nē sil*, I am sweaty.  
 Fig. 2.— *dūl tsō*, blue. 113-13.  
 Fig. 3.— *be nō' sūñ*, you hide (plu. imp.). 113-4.  
 Fig. 4.— *te' tel sūñ*, he hung up. 176-13.  
 Fig. 5.— *dō kw ne sūñ*, I was insensible. 182-17.  
 Fig. 6.— *tət dūl sūs*, we dragged out.  
 Fig. 7.— *te' gūn sūt*, he pounded up. 80-5.  
 Fig. 8.— *ūs sūt*, I will pound. 110-3.  
 Fig. 9.— *k' gūn sūt*, she pounded. 135-9.  
 Fig. 10.— *na ca'*, I go about. 133-6.  
 Fig. 11.— *te' gūn cai*, she buried in ashes. 129-2.  
 Fig. 12.— *k'wūt te'e ya ce'*, they spit on. 154-14.  
 Fig. 13.— *ka te' gūc cī'*, they dug. 148-11.  
 Fig. 14.— *ka te' gūn cī'*, they were digging. 148-8.



EXPLANATION OF PLATE 36

VERBAL STEMS

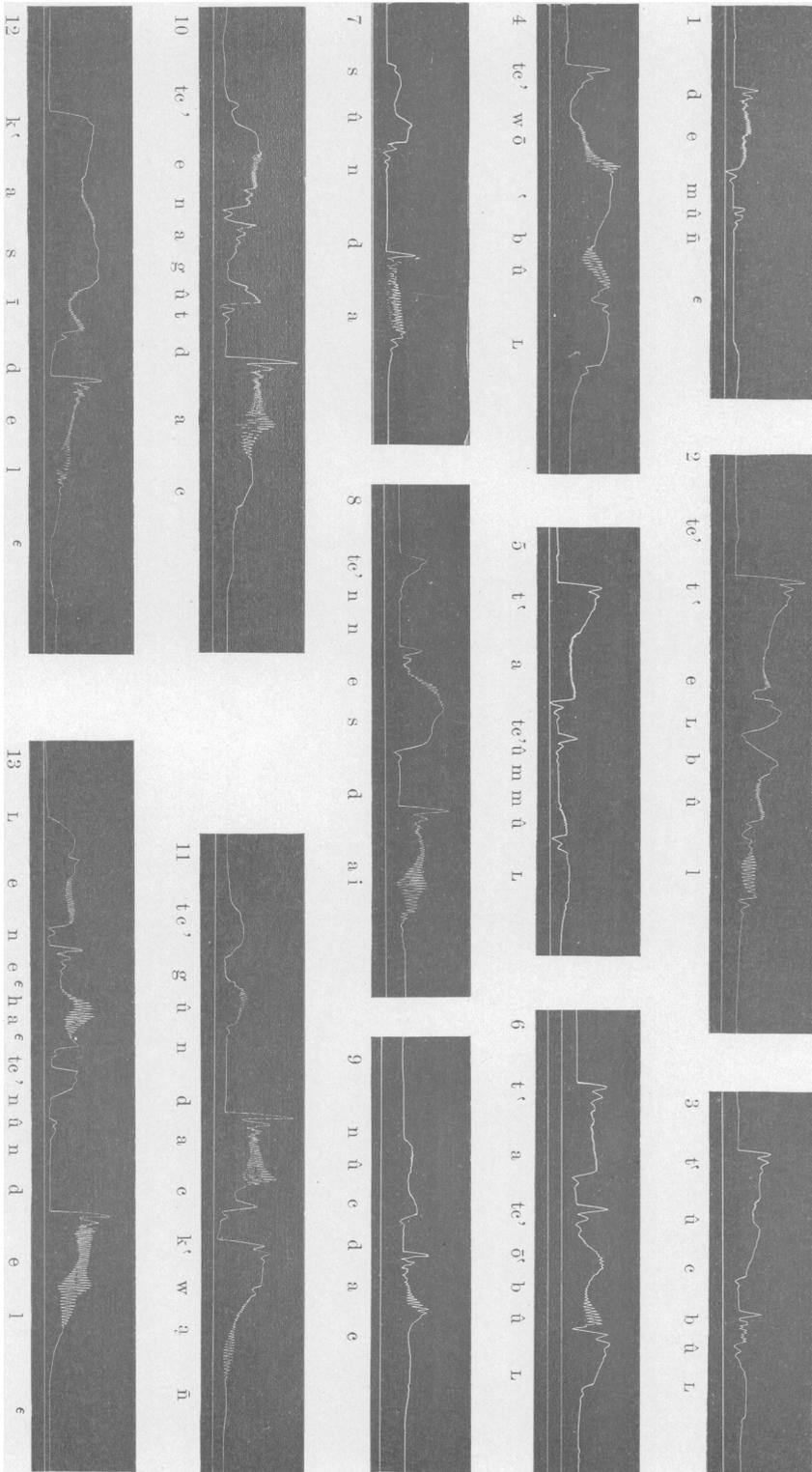
- Fig. 1.— n cōn ne, it is good. 77-4.  
 Fig. 2.— nL cūñ<sup>ε</sup>, black. 86-2.  
 Fig. 3.— gūL cūñ<sup>ε</sup>, it smells good.  
 Fig. 4.— kwa gūt teūt', they fed her. 151-15.  
 Fig. 5.— dō nAL ban ne, he was not lame. 134-5.  
 Fig. 6.— dō yī he<sup>ε</sup> e, I am tired. 98-1.  
 Fig. 7.— nīñ dōñ he<sup>ε</sup> ūñ, are you tired (sing.). 141-1.  
 Fig. 8.— dō yī de he<sup>ε</sup> e, we are tired. 116-17.  
 Fig. 9.— nō hīñ na'be, swim (plu. imp.). 111-2.  
 Fig. 10.— ya<sup>ε</sup> te' be, they were picking.  
 Fig. 11.— t bōc, round. 80-1.  
 Fig. 12.— cōñk tūt bāl, well it rains. 74-4.  
 Fig. 13.— te t bīl<sup>ε</sup>, it rained. 81-1.



EXPLANATION OF PLATE 37

VERBAL STEMS

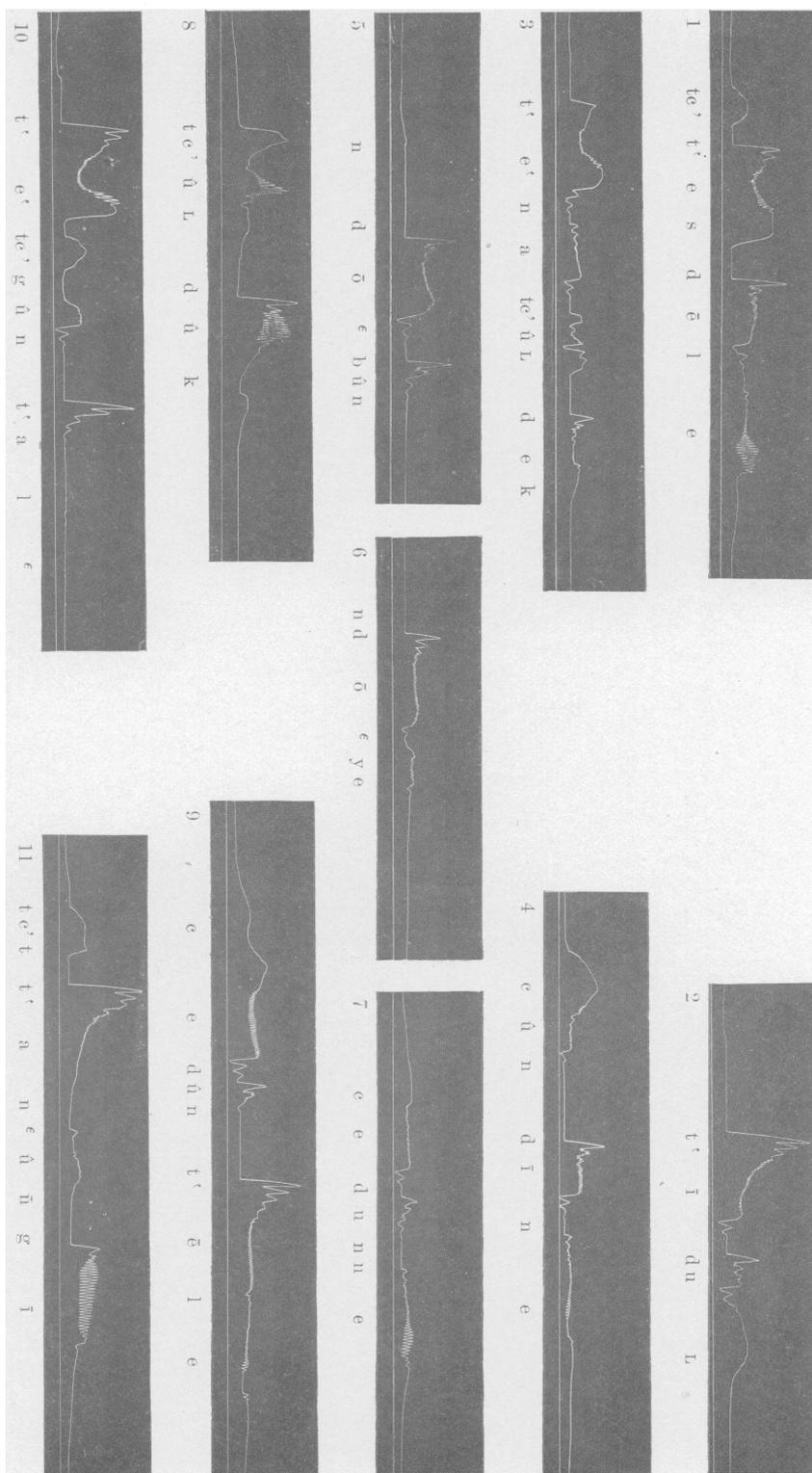
- Fig. 1.— *de mûñ<sup>é</sup>* (*din bûñ<sup>é</sup>*), it was full. 129-12.  
 Fig. 2.— *te't teL bûL*, he hung it up.  
 Fig. 3.— *tûc bûL*, I will hang up. 115-6.  
 Fig. 4.— *te' wô' bûL*, carry it (plu. imp.). 110-15.  
 Fig. 5.— *ta te'ûm mûL*, cook mush (sing. imp.). 163-14.  
 Fig. 6.— *ta te'ô' bûL*, cook mush (plu. imp.). 123-13.  
 Fig. 7.— *sûn da*, you stay (sing. imp.). 79-7.  
 Fig. 8.— *te'n nes dai*, he sat down. 161-10.  
 Fig. 9.— *nûc dac*, I will dance. 103-9.  
 Fig. 10.— *te'e na gût dac*, he came out again. 149-13.  
 Fig. 11.— *te' gûn dac kwañ*, he had danced.  
 Fig. 12.— *ka sî del<sup>é</sup>*, we came up. 141-2.  
 Fig. 13.— *Le ne<sup>é</sup> ha<sup>é</sup> te'n nûn del<sup>é</sup>*, all came up.



EXPLANATION OF PLATE 38

VERBAL STEMS

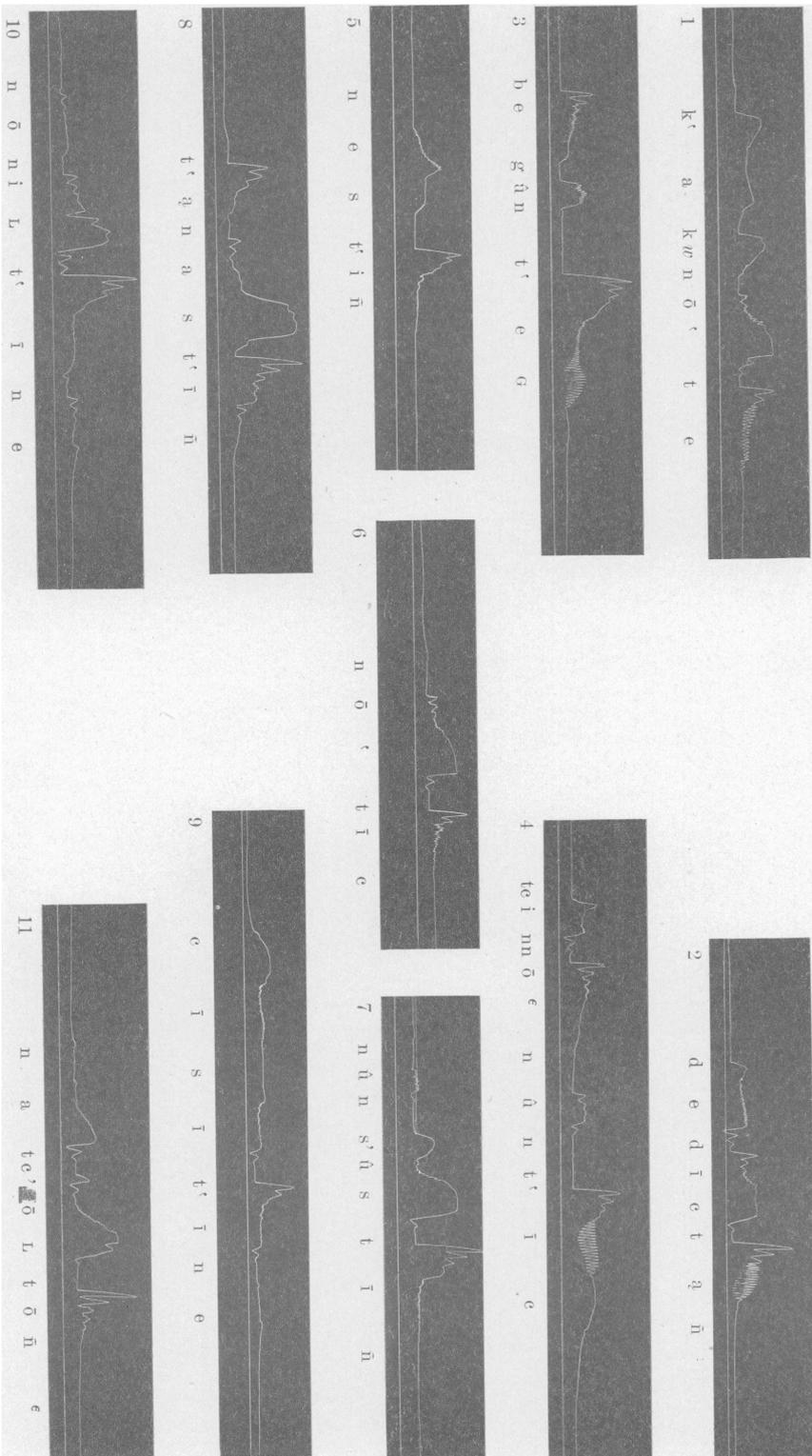
- Fig. 1.— *te't tes dē le*, they went on. 108-12.  
 Fig. 2.— *tī dūL*, let us go. 141-6.  
 Fig. 3.— *te' na te'ūL deē*, she washed them.  
 Fig. 4.— *cūn dī ne*, the sun shines. 182-13.  
 Fig. 5.— *n dō<sup>ε</sup> būñ*, it will not be. 80-13.  
 Fig. 6.— *n dō<sup>ε</sup> ye*, there is none. 109-1.  
 Fig. 7.— *ce dūn ne*, I died.  
 Fig. 8.— *te'ūL dūk*, crack them (sing. imp.). 138-2.  
 Fig. 9.— *ce e dūn tē le*, I will die. 177-5.  
 Fig. 10.— *te' te' gūn tal<sup>ε</sup>*, he stepped in water.  
 Fig. 11.— *te't tañ<sup>ε</sup> ūñ gi*, he is eating. 174-1.



EXPLANATION OF PLATE 39

VERBAL STEMS

- Fig. 1.— *ka kw nō<sup>ˈ</sup>te*, look for him. 160-1.  
 Fig. 2.— *dē dīc tãñ*, I put in the fire.  
 Fig. 3.— *bē gûn tēg*, he taught. 122-11.  
 Fig. 4.— *tein nō<sup>ˈ</sup> nûn tīc*, hide yourself (sing.).  
 Fig. 5.— *nes tīñ*, it is lying. 182-3.  
 Fig. 6.— *nō<sup>ˈ</sup>tīc*, put it (plu. imp.). 168-13.  
 Fig. 7.— *nûn s'ûs tīñ*, he picked him up. 179-14.  
 Fig. 8.— *tãñ nas tīñ*, she took out again. 129-2.  
 Fig. 9.— *cī sī tī ne*, I lay. 175-16.  
 Fig. 10.— *nō nīl tī ne*, he put it.  
 Fig. 11.— *na tē'ôl tōñ<sup>ˈ</sup>*, he snapped it



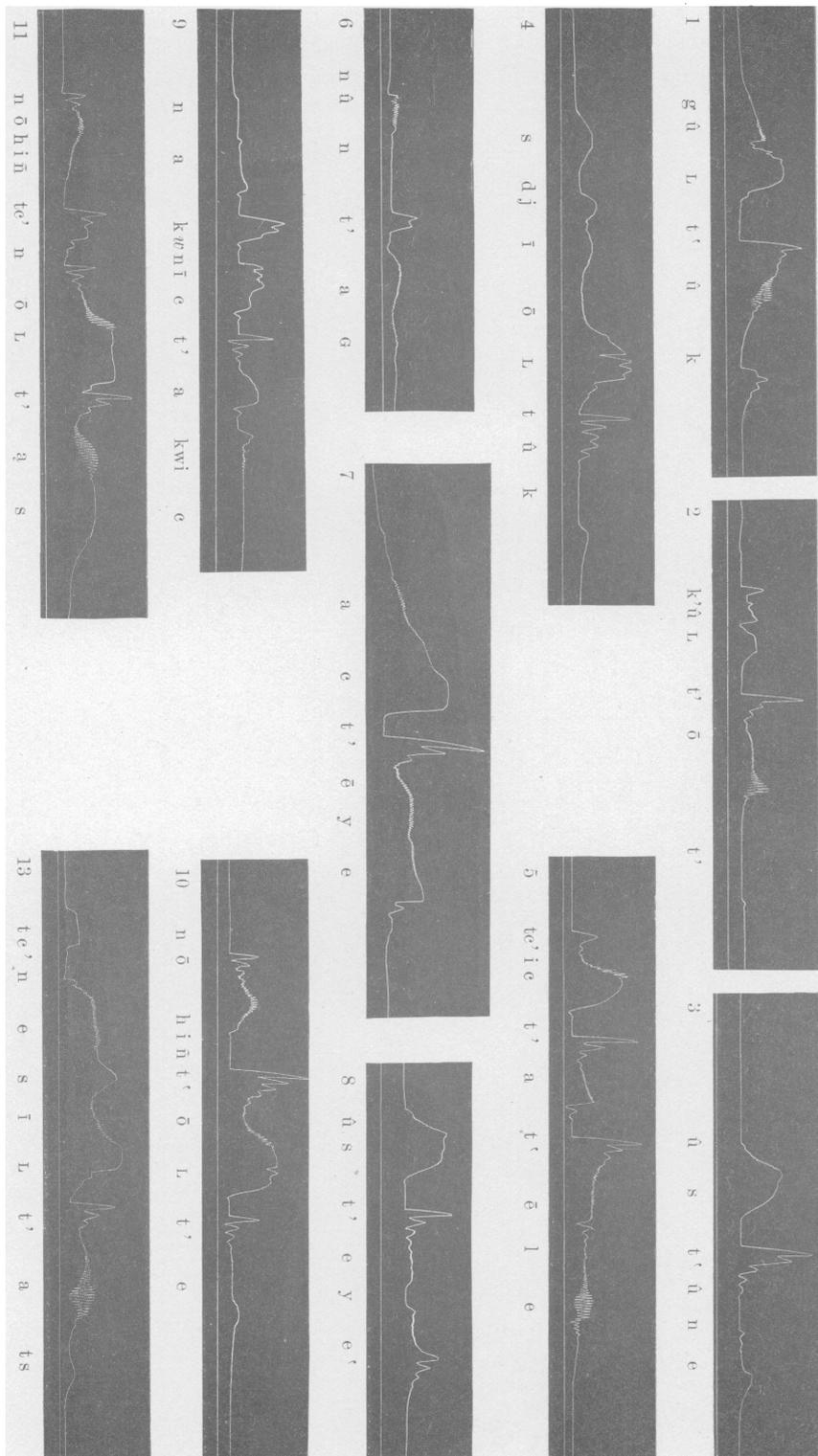
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EXPLANATION OF PLATE 40

VERBAL STEMS

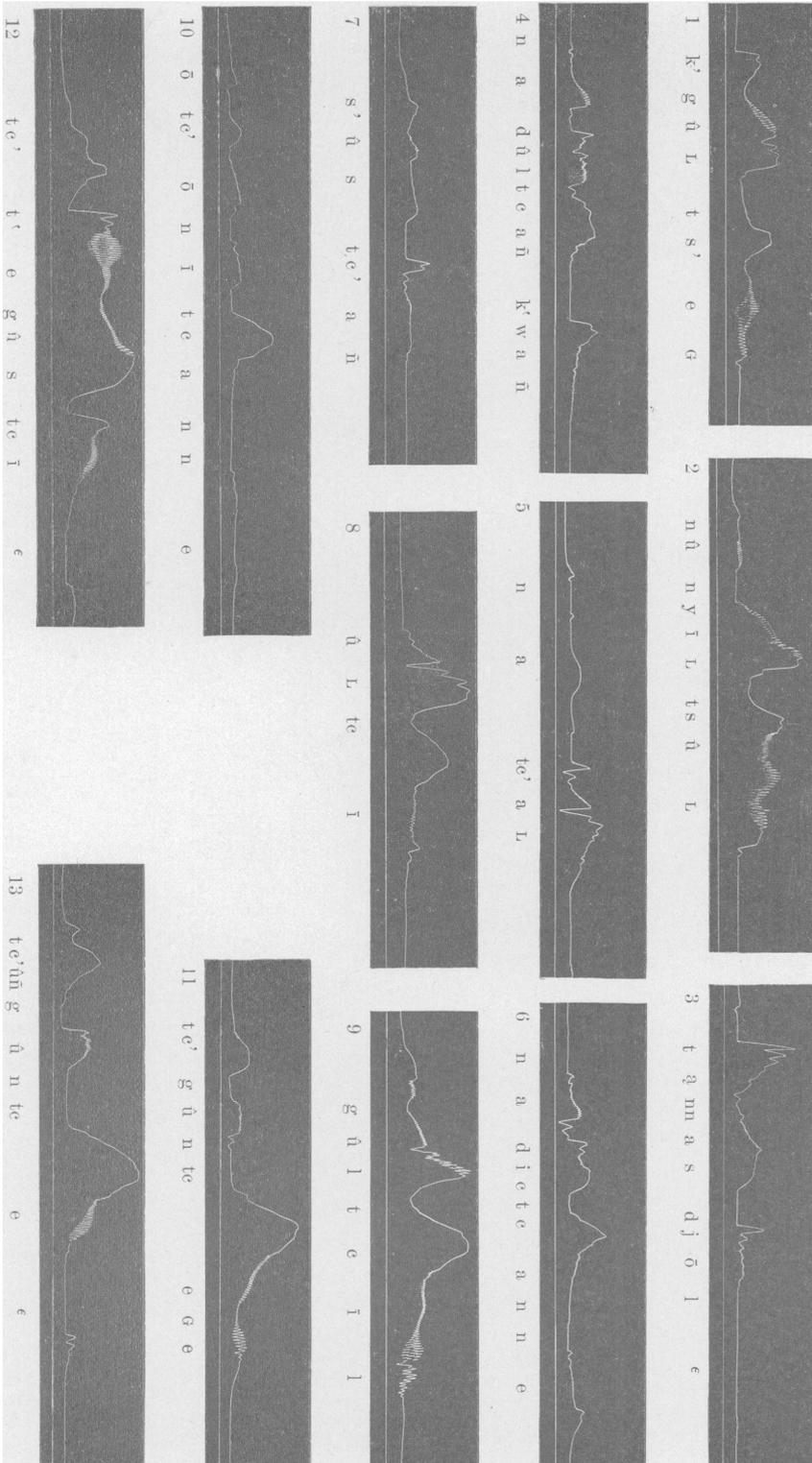
- Fig. 1.—gûL tûk, it burst. 182-5.  
 Fig. 2.—k'ûL t'ôt', he sucked it. 159-2.  
 Fig. 3.—ûs tûn e, it is cold.  
 Fig. 4.—s djî ôL tûk, kill me (plu. imp.). 151-8.  
 Fig. 5.—te'ic t'a tē le, I will feather. 156-5.  
 Fig. 6.—nûn t'ag, it flew. 182-11.  
 Fig. 7.—ac t'e ye, I am.  
 Fig. 8.—ûs t'e ye', it is cooked. 163-15.  
 Fig. 9.—na kw nîc t'a kwic, I am going to sling at him. 122-14.  
 Fig. 10.—nô hiñ tōL t'e, you cook (plu. imp.). 167-16.  
 Fig. 11.—nô hiñ te'n nōL t'as, you cut them (plu. imp.). 166-15.  
 Fig. 12.—te'n ne sîL t'ats, I cut it up. 138-15.



EXPLANATION OF PLATE 41

VERBAL STEMS

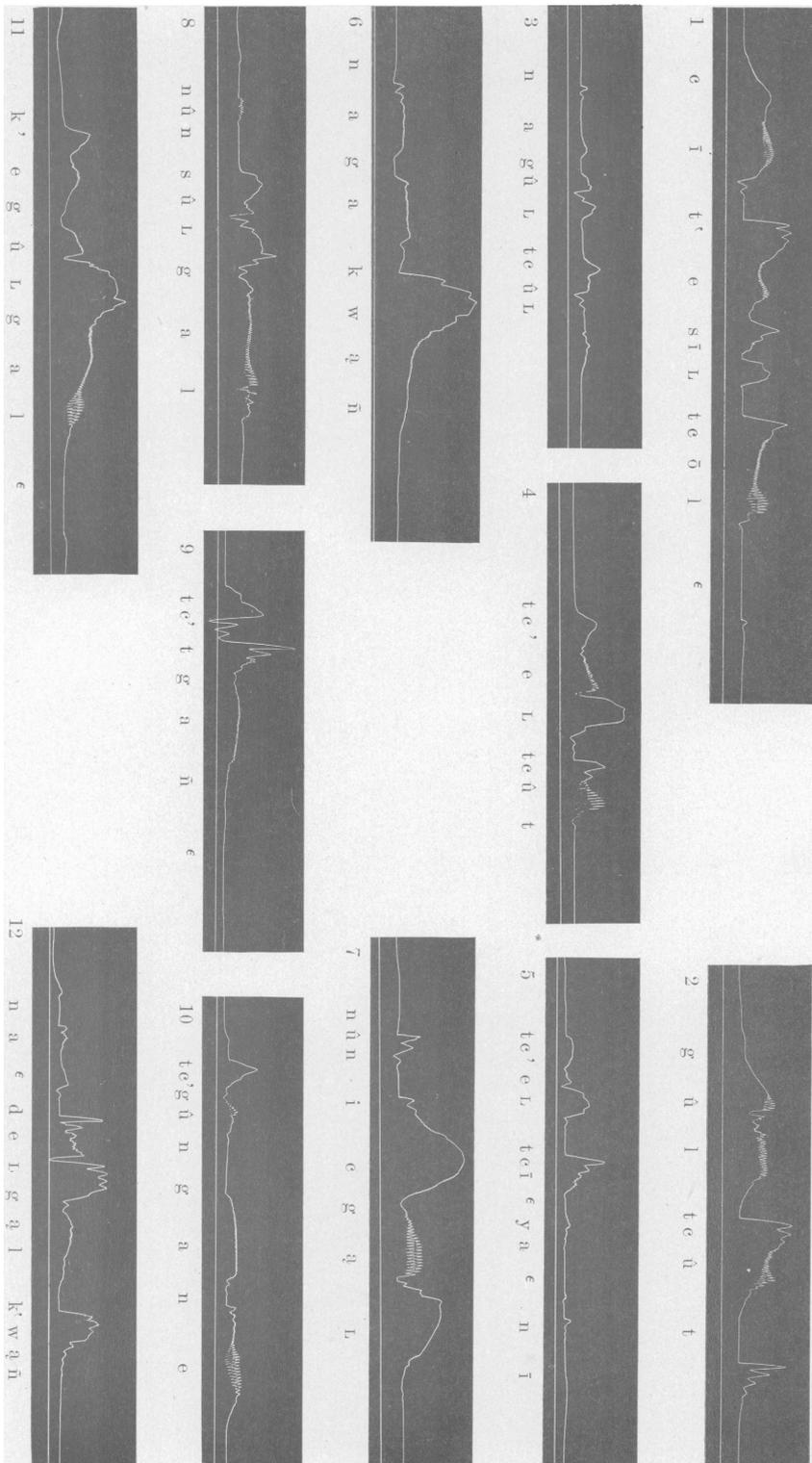
- Fig. 1.— k' gŭL ts'eg, he ate soup.  
 Fig. 2.— nŭn yŭL tsŭL, it beat against. 86-12.  
 Fig. 3.— tən nas djöl<sup>ε</sup>, he rolled out of fire. 147-9.  
 Fig. 4.— na dŭl tcañ kwañ, he had eaten.  
 Fig. 5.— na te'al, he was chewing. 143-3.  
 Fig. 6.— na dic tean ne, I ate. 171-9.  
 Fig. 7.— s'ŭs te'añ, he shot it.  
 Fig. 8.— ŭL tei, make it. 79-8.  
 Fig. 9.— te'gŭl tei, he kept making. 144-8.  
 Fig. 10.— ō te'ō nī tea ne, I left him. 117-17.  
 Fig. 11.— te'gŭn tee ge, he cried.  
 Fig. 12.— te'te gŭs tei<sup>ε</sup>, nearly daylight.  
 Fig. 13.— te'ŭñ gŭn tee<sup>ε</sup>, he was angry.



EXPLANATION OF PLATE 42

VERBAL STEMS

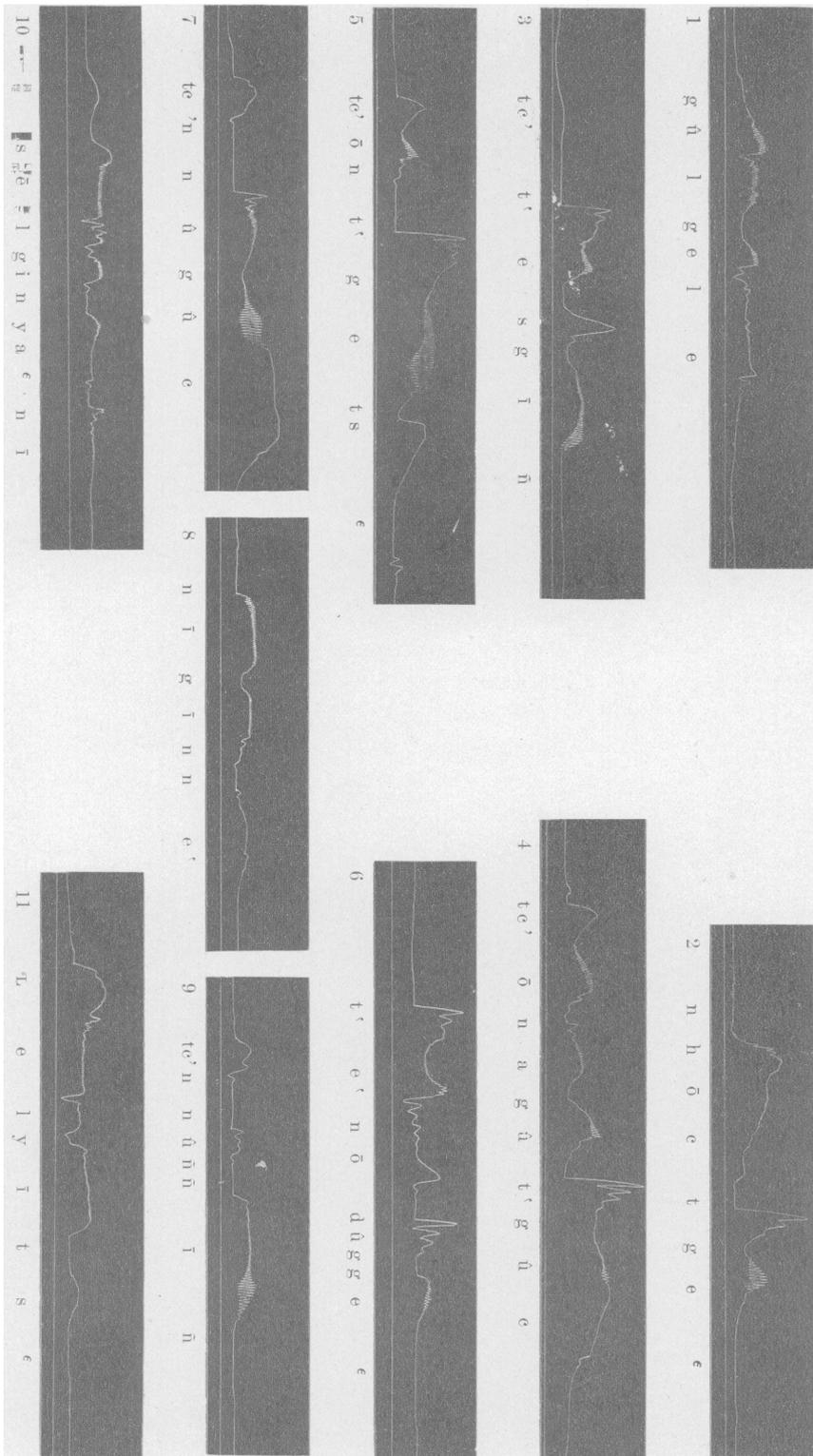
- Fig. 1.— cī te sīL teōl<sup>ε</sup>, I stole.  
 Fig. 2.— gūL teūt, he caught them.  
 Fig. 3.— na gūL teūL ya<sup>ε</sup> nī, he got wet they say. 126-16.  
 Fig. 4.— te'el teūt, stretch it out (sing. imp.). 77-13.  
 Fig. 5.— te'el teī<sup>ε</sup> ya<sup>ε</sup> nī, he caught it they say. 142-5.  
 Fig. 6.— na ga kwañ, he had walked. 154-12.  
 Fig. 7.— nūn ic gaL, let me chop.  
 Fig. 8.— nūn sūL gal, you beat? 129-10.  
 Fig. 9.— te't gañ<sup>ε</sup>, it is mouldy. 167-16.  
 Fig. 10.— te' gūn ga ne, he killed.  
 Fig. 11.— k'e gūL gal<sup>ε</sup>, she threw away.  
 Fig. 12.— na<sup>ε</sup> deL gaL kwañ, he had poured. 125-13.



EXPLANATION OF PLATE 43

VERBAL STEMS

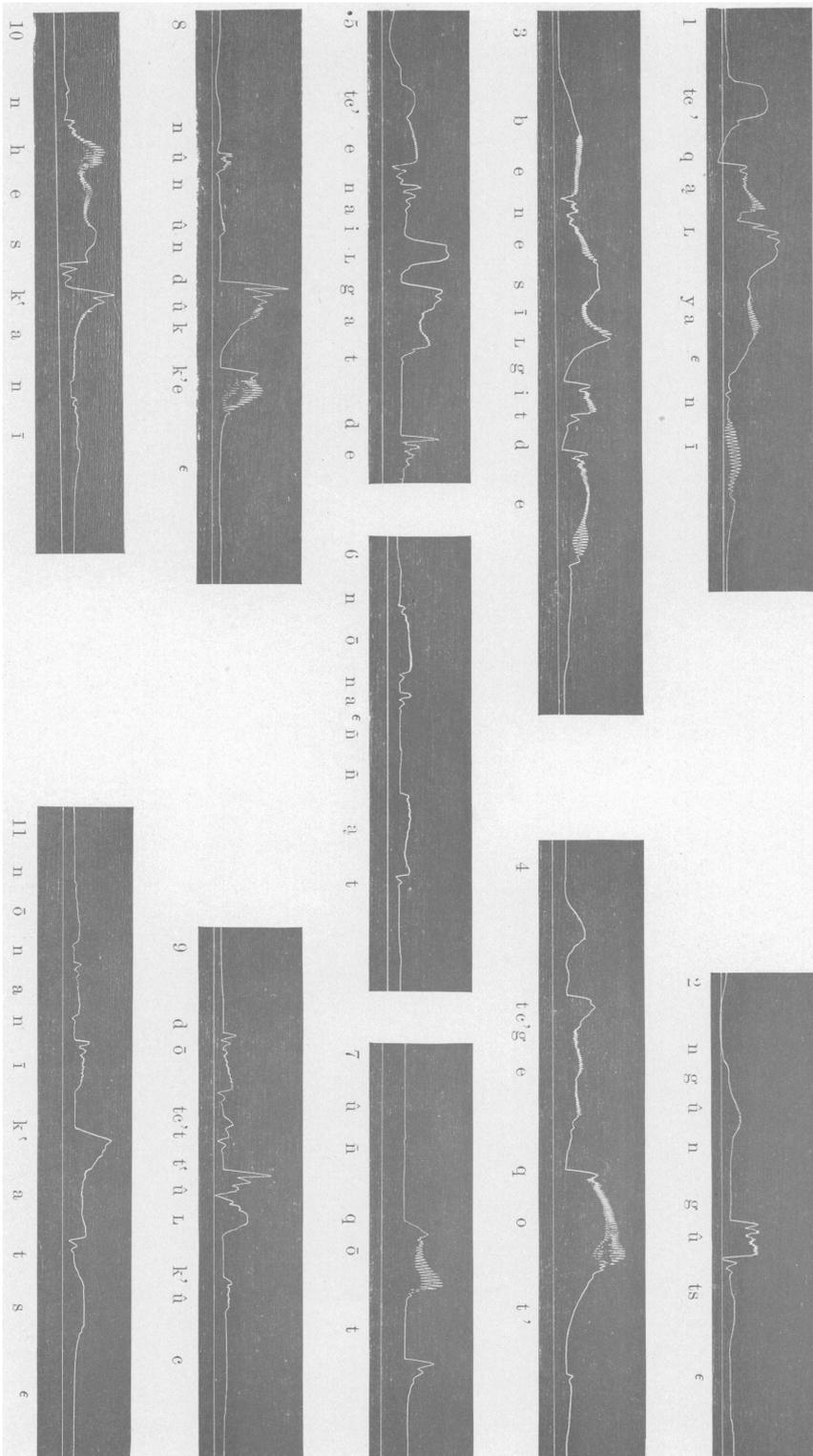
- Fig. 1.— gûl ge le, it was getting late.  
 Fig. 2.— n hōc t ge<sup>ε</sup>, let me see you. 142-6.  
 Fig. 3.— te' t tes gūñ, he carried. 101-9.  
 Fig. 4.— te'ō na gūt gūc, he looked back. 87-13.  
 Fig. 5.— te'ōn t gets', he looked at them.  
 Fig. 6.— te' nō dūg ge<sup>ε</sup>, we will put in water. 139-9.  
 Fig. 7.— te'n nūg gūc, she brings in. 180-9.  
 Fig. 8.— nī gin ne', I bring. 138-14.  
 Fig. 9.— te'n nūñ nūñ, he brought. 135-11.  
 Fig. 10.— sēl gin ya<sup>ε</sup> nī, he killed they say. 141-13.  
 Fig. 11.— Lel yīts', he tied together. 174-15.



EXPLANATION OF PLATE 44

VERBAL STEMS

- Fig. 1.—tc' qəL ya<sup>ε</sup> nī, he walked they say. 93-12.  
 Fig. 2.—t gūn gūts', it was getting thick. 126-11.  
 Fig. 3.—be nē sīL git de, I am getting afraid. 130-15.  
 Fig. 4.—tc' ge qōt, they stretched. 114-1.  
 Fig. 5.—tc'e naiL gat de, he sewed up. 122-13.  
 Fig. 6.—nō na<sup>ε</sup>ñ ñat, he untied it. 122-15.  
 Fig. 7.—ûñ qōt, spear it. 128-12.  
 Fig. 8.—nūn ûn dûk k'e<sup>ε</sup>, get up (sing. imp.). 100-3.  
 Fig. 9.—dō tc't tūL k'ûc, it did not lighten. 74-6.  
 Fig. 10.—n hes ka nī, we spent the night. 167-7.  
 Fig. 11.—nō na nī kats', I fell back. 182-16.



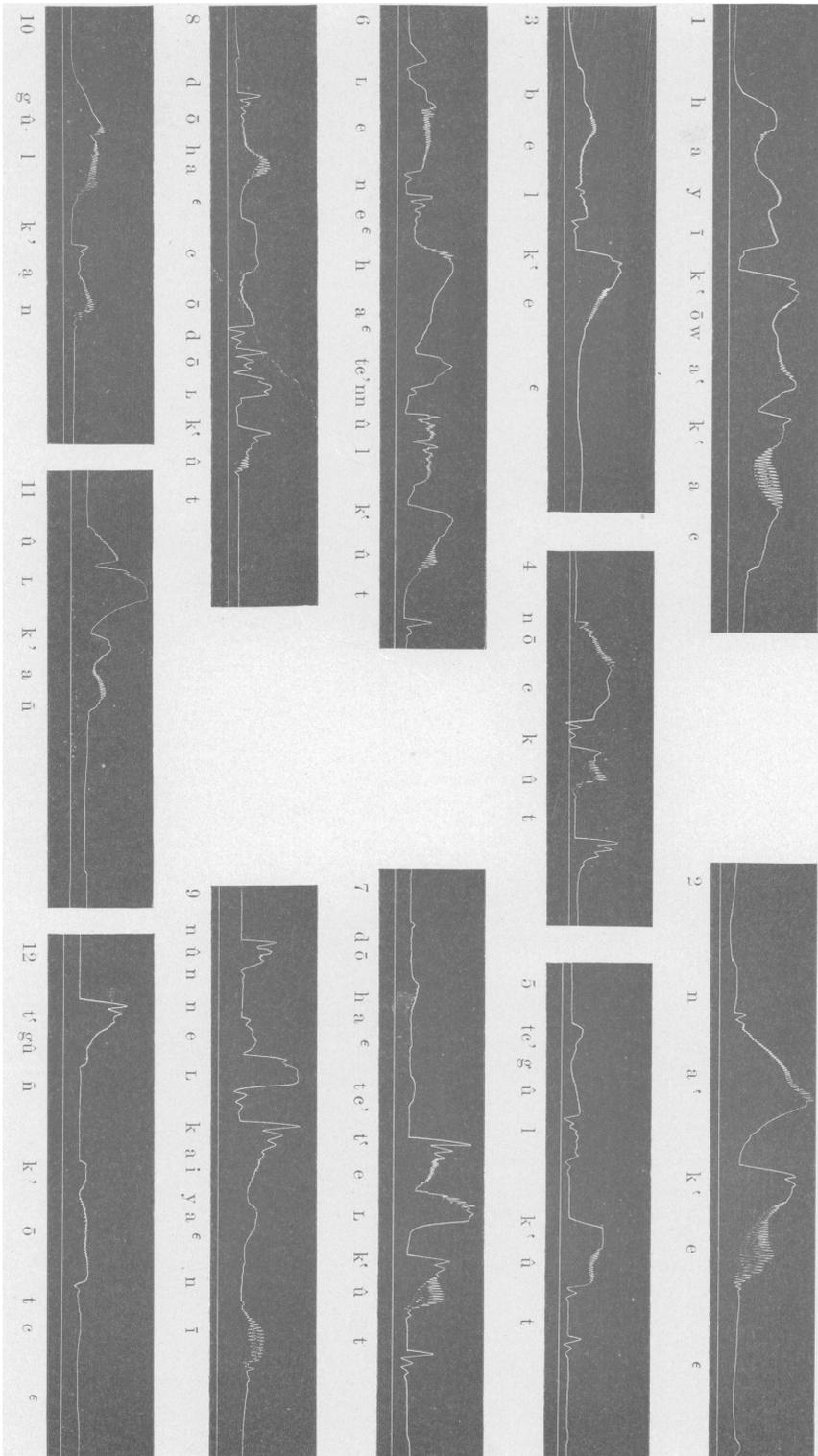
EXPLANATION OF PLATE 45

VERBAL STEMS

- Fig. 1.— ha yī kō wa kac, that one give him (a basket of food).  
 Fig. 2.— na' ke<sup>ε</sup>, bathe (plu. imp.). 172-14.  
 Fig. 3.— bel ke<sup>ε</sup>, he finished.  
 Fig. 4.— nōc kūt, I want to swallow you. 181-14.  
 Fig. 5.— te' gūl kūt, he swallowed. 109-7.  
 Fig. 6.— Le ne<sup>ε</sup> ha<sup>ε</sup> te'n nūl kūt, all they came. 154-12.  
 Fig. 7.— dō ha<sup>ε</sup> te't tel kūt, they did not go. 167-17.  
 Fig. 8.— dō ha<sup>ε</sup> cō dōL kūt, do not ask me. 166-8.  
 Fig. 9.— nūn neL k'ai ya<sup>ε</sup> nī, he hit they say. 156-14.  
 Fig. 10.— gūl k'añ, there was a fire. 162-13.  
 Fig. 11.— ūl k'añ, make a fire. 127-11.  
 Fig. 12.— t gūñ k'ōtc', it got sour.

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[GODDARD] PL. 45



UNIVERSITY OF CALIFORNIA PUBLICATIONS—(CONTINUED)

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