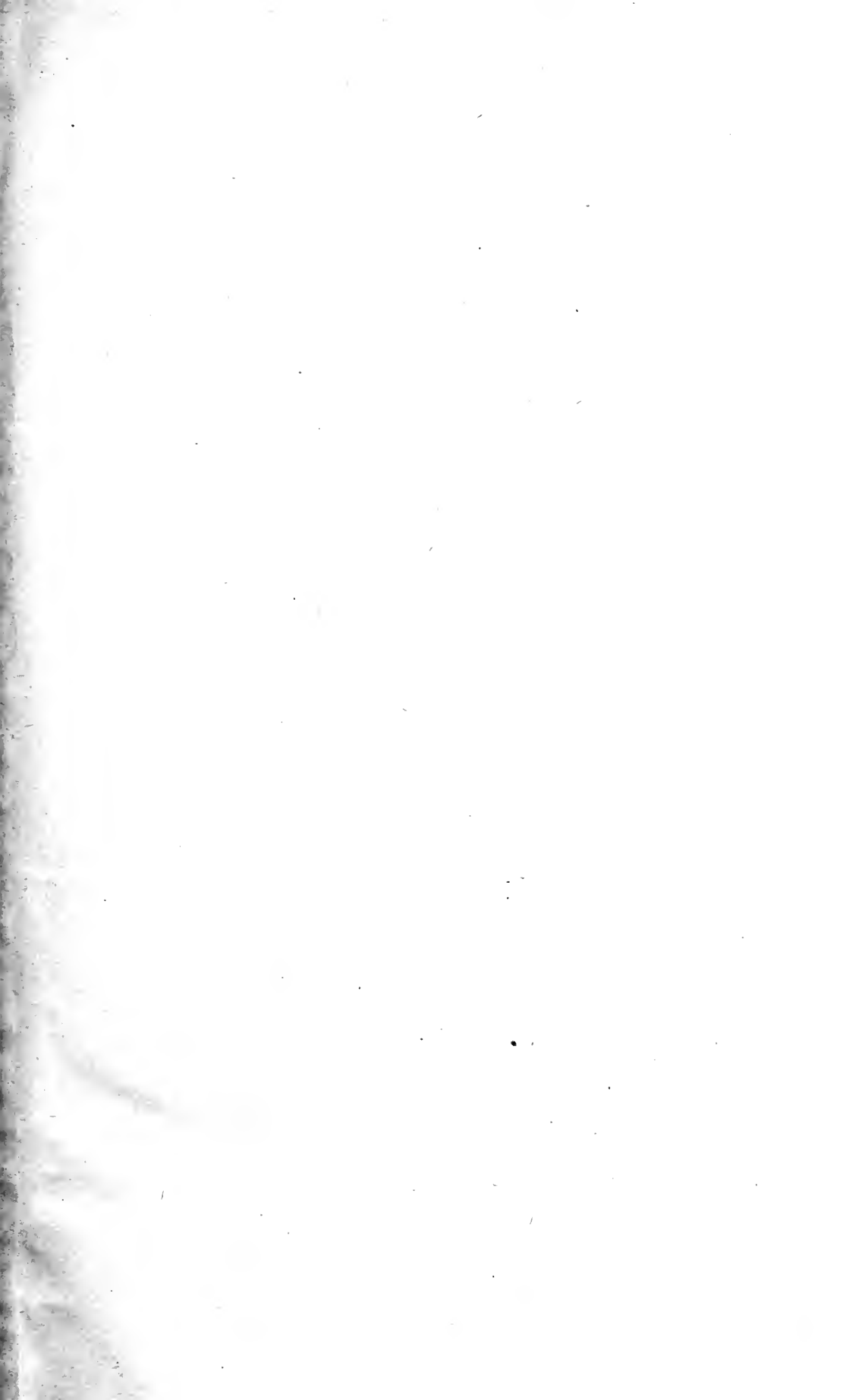
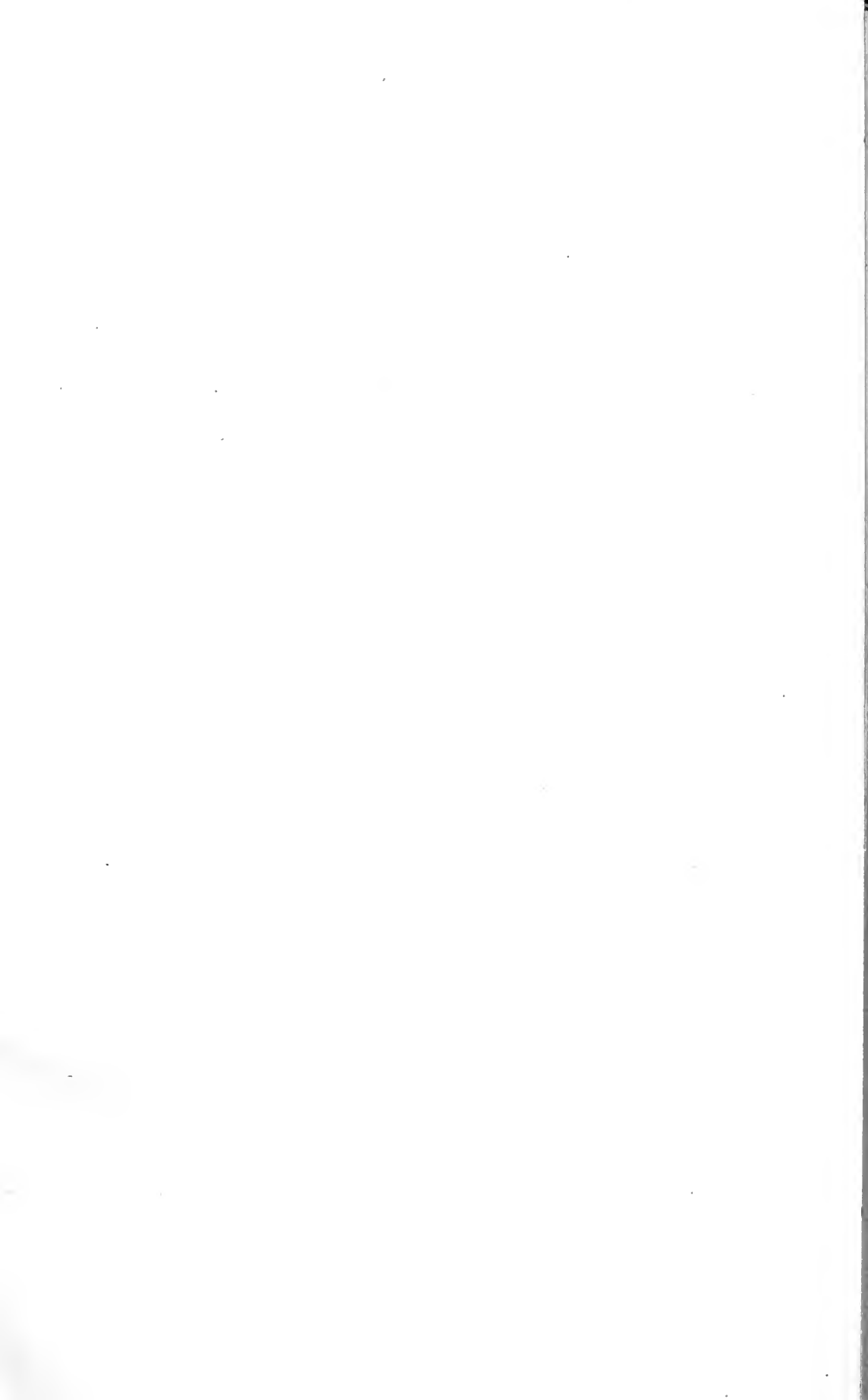


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ELEMENTS OF THE KATO LANGUAGE

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.¹ As has been said in another place,² 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,³ to the pages and lines of which the numerals after the examples refer. The tracings⁴ 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.

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

² Univ. Calif. Publ. Am. Arch. Ethn., v, 56, 1909.

³ Univ. Calif. Publ. Am. Arch. Ethn., v, 65-238, 1909.

⁴ For a description of the apparatus and methods consult Amer. Anthropol., 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., -kwaŋ, -kwaŋ. 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 sūL 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.⁵

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^ε when it follows a nasal becomes mī^ε (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,

⁵ 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).⁶

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.⁷ 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

⁶ Work cited, v, 10.

⁷ *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 tc', 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*.^{7a}

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

^{7a} 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 (χ) 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 (ϵ) occurs in the initial position in a word is not certain. It is initial in the verbal stems - ϵ a, - ϵ ai, and - ϵ 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				ñ	
Velar	q								
Glottal			ε	h, h'					

Semivowels: y, w.

Vowels.

		a		
		ą		
		e	ę	ō
	i	î		
I				ū

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 gûL gal, he threw up; Hupa ya wiL waL, he threw through the air.

Kato e; Hupa e.

Kato t'ee, coal; Hupa, teûw, coal.

Kato tes del^é; Hupa teit tes deL, they went.

Kato î; Hupa e.

Kato cî, I; Hupa, hwe, I.

Kato dō gîs îî, 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'ûn tō^é, water reached; Hupa nō it tō, the water comes.

Kato û; Hupa î.

Kato lût, smoke; Hupa lit, smoke.

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

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

Kato y; Hupa y.

Kato ya^é, louse; Hupa ya, louse.

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

Kato l; Hupa l.

Kato la^t, seaweed; Hupa la, seaweed.

Kato te'ûs li^é, he caught in a noose; Hupa tsis loi, he tied in bundles.

Kato te't te lōs, he led; Hupa na te lōs, she dragged back.

Kato L; Hupa L.

Kato Lōn, squirrel; Hupa Lōn, mouse.

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

Kato te'e nan La, he jumped out; Hupa tce 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^ε, 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^ε, land; Hupa nin, ground.

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

Kato ñ; Hupa ñ or n.⁸

Kato ō te'ūñ^ε, toward it; Hupa xō tciñ, toward her.

Kato de t gūñ^εañ, 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^ε, 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.⁹

Kato ū da^ε, his mouth; Hupa xōt da, his mouth.

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

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

Kato dj; Hupa dj.

Kato dje^ε, pitch; Hupa dje, pitch.

Kato dje^ε gūL tceL, he split open; Hupa dje wiL kil, he tore open.

Kato t, Hupa t.

Kato tō, water; Hupa tō, ocean.

Kato te'te' gūñ tal^ε, he stepped in water; Hupa te nō dū win tal, he stepped in water.

⁸ 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.

⁹ When a prefix such as follows de-, in fire, stands alone, it becomes t in Kato, e.g., de t gūñ^εañ (Hupa de dū win an), he put on the fire; but otherwise it is d also in Kato, as in de dūñ^εaq, put on the fire.

Kato t'; Hupa t.¹⁰

Kato t'e^ε, blanket; Hupa te, blanket.

Kato ta gūt t'ats, he butchered; Hupa kit te tats, he cut them.

Kato te; Hupa te.

Kato L teūc, dust; Hupa Lit teūw, sand.

Kato wa nūn teī būñ, it will blow through; Hupa da kyū wes tee, the wind blew.

Kato te; Hupa tew.

Kato e teō, my grandmother; Hupa mite tewō, its grandmother.

Kato ūL teī, make it; Hupa iL tewe, make it.

Kato te'ūn gūn tee ce, he cried; Hupa teū win tewū, he cried.

Kato te; Hupa k (prepalatal).

Kato teūn, tree; Hupa kin, tree.

Kato n tecl^ε, your brother; Hupa mik kil, her brother.

Kato gūl teūt, he caught them; tee xōL kit, he caught him.

Kato te'; Hupa te, ky.¹¹

Kato te' nes tiñ, he lay down; Hupa tein nes ten, he lay down.

Kato te' gūn yan^ε, he ate of it; kyū win yan, he ate it.

Kato g; Hupa w.

Kato gūL gel^ε, it was evening; Hupa wil weL, dark, night.

Kato sel gīn, he killed; Hupa tee seL wen, he killed.

Kato k; Hupa x.

Kato kai hit', winter time; Hupa xai, winter.

Kato ka ya cī^ε, they dug; Hupa xa ke hwe, she commenced to dig.

Kato wa^ε ūñ kan, she gave him; Hupa xō wa teiñ xan, she gave her.

Kato kw; Hupa x.

Kato kwōñ^ε, fire; Hupa xoñ, fire.

Kato kw na^ε, his eyes; Hupa xon na, his eyes.

Kato kwa'la, you did; Hupa xa ūl le, do that.

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

Kato k'at de^ε, 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^ε, 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.

¹⁰ Hupa t is but an earlier orthography for t' used in Kato.

¹¹ In Hupa te with glottal accompaniment was not differentiated from the few occurrences of simple te.

ASSIMILATION OF SOUNDS

The instances of assimilation noticed are the following:

b following n or ñ becomes m:

kwōñ^ε mī^ε (for kwōñ^ε bī^ε), fire in. 119-13.¹²

kwōñ^ε mūñ a (for kwōñ^ε būñ a), fire before. 119-16.

tâm mīc (for tûn 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.

û na nûn Lûb būñ (for û na nûn Lût būñ), around you must burn.
104-10.

nōl kûb būñ (for nōl kût būñ), 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

¹² 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 :

-^eai becomes -^ea, stem, to have, position.

-yai becomes -ya, stem, to go.

The quality of the vowels changes in the following :

ta- becomes ta^t-, prefix, relating to water.

ka- becomes ka^l-, prefix, up.

ye- becomes yī-, prefix, in.

-del^e- becomes -dūL, stem, go.

-sīl^e 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.¹³ 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.¹⁴ 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.)
- əl, firewood. 137-16.
- ya', sky. 77-13. (Pl. 12, fig. 2.)
- ya^ε, 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^ε, bead. 145-7.
- wōs, leg. 79-10. (Pl. 5, fig. 3; pl. 12, fig. 5.)
- l̥ət, 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.)
- Lūt, smoke. 141-2. (Pl. 12, fig. 7.)
- Le^ε, night. 81-4.
- Lō', herb, grass. 71-3. (Pl. 2, fig. 8; pl. 12, fig. 8.)
- main, weasel. 74-2. (Pl. 6, fig. 5.)

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

¹⁴ *Ibid.*, III, 13.

- ne^ε, 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^ε, mush. 110-8.
 ca, sun. 74-9. (Pl. 12, fig. 11.)
 cek', spittle. 154-14. (Pl. 12, fig. 12.)
 cîc, ochre. 80-4. (Pl. 15, fig. 12.)
 ele^ε, 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^ε, brush. 76-7.
 ts'ûñ, bone. 110-1.
 teûn, tree. 71-3.
 te'añ, food. 85-5.
 te'ek, woman. 83-15.
 te'i, boat. 127-10.
 te'ō', black-bird. 72-15.
 te'ûñ, noise. 107-8.
 t'a^ε, feather. 105-14. (Pl. 7, fig. 7.)
 t'e^ε, blanket. 110-5.
 t'ec (t'ee), coal. 143-7; 147-9.
 ges, black salmon. 84-3. (Pl. 12, fig. 16.)
 gac, yew.
 ka', goose. 73-14.
 ka^ε, a feather headdress. 176-17.
 kai, winter.
 kōs, cough. (Pl. 12, fig. 17.)
 kwe^ε, track. 108-13.
 kwōñ^ε, fire. 81-3. (Pl. 4, fig. 5.)
 kwōt, stream, creek. 90-15.
 kwōe, whitethorn (a shrub). 166-3.
 k'a^ε, arrow. 110-10.
 k'ai^ε, hazelnuts. 94-5.
 k'iñ^ε, junberry. 133-3. (Pl. 4, fig. 8; pl. 11, fig. 2.)
 k'ûñ^ε, hazel. 133-10. (Pl. 12, fig. 20.)
 k'ûc, alder. (Pl. 12, fig. 18.)
 k'wa', fat. 83-15. (Pl. 12, fig. 19.)
 qō, 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 djī^ε, my heart. (Pl. 13, fig. 14.)

n-, second person singular.

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

nō^ε-, first person plural.

nō^ε sī^ε, our heads. 129-10. (Pl. 5, fig. 8.)

nō^ε-, second person plural.

nō^ε sī^ε, your heads. 172-15.

nō^ε nān, your mother. 135-2.

n h-, second person plural.

n hānte, 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).

bānte, his nose. 80-7.

bī ne^ε, 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^ε, her eye. 152-10. (Pl. 13, fig. 5.)

ū tea^ε, her apron. 165-8. (Pl. 13, fig. 3.)

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

kw da^ε, his mouth. 123-2. (Pl. 14, fig. 7.)

kūc-, third person plural.

kūc na tag ha^ε, without their knowledge. 155-8.

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

tc' sī^ε, head. 128-5.

*Parts of the Body*¹⁵

-ūnte, nose. 80-7; 98-2.

-we cī, eggs. 111-9.

¹⁵ III, 14-16.

- wō^ε, tooth. 181-8. (Pl. 4, fig. 2; pl. 14, fig. 4.)
- wōs, leg. 151-18. (Pl. 5, fig. 3.)
- la^ε, hand. 154-1; 164-1.
- lai^ε, penis. 80-8.
- La, butt. 93-10.
- na^ε, eye. 180-7. (Pl. 13, fig. 5.)
- ne^ε, back, back-bone. 133-3.
- ne^ε, lower leg. (Pl. 13, fig. 12.)
- sa ye, its shell. 131-9.
- sa ke^ε, spleen. 133-4.
- si^ε, head. 76-1. (Pl. 5, fig. 8.)
- si^ε da^ε, crown of head. 79-4. (Pl. 14, fig. 12.)
- sō^ε, tongue. 110-3. (Pl. 13, fig. 4.)
- sō se^ε, sting. 156-1.
- sûn^ε, meat. 134-14.
- sûn ta^ε, forehead. 132-15.
- sûts, skin. 110-4. (Pl. 13, fig. 7.)
- sle^ε, anus. 143-13.
- bût', stomach. 148-6. (Pl. 11, fig. 5.)
- da^ε, mouth. 122-13. (Pl. 14, fig. 7.)
- da^ε, voices. 106-14.
- da^ε ga^ε, beard.
- de^ε, horn. 74-10. (Pl. 13, fig. 9.)
- des ke^ε, lungs. 180-12.
- dī ce^ε, shoulder. 75-1.
- dji^ε, heart. 125-17. (Pl. 13, fig. 14.)
- dji k'e^ε, intestines. 113-3.
- te le^ε, 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^ε, milk. (Pl. 13, fig. 6.)
- te'a nī, faeces. 142-7.
- tei^ε, tail. 163-1. (Pl. 14, fig. 5.)
- tei^ε, mind. 101-14.
- tei^ε, heart. 101-5. (Pl. 5, fig. 4.)
- dji cīe te^ε, lungs. 80-2.
- teō djīl, kidney. 80-2. (Pl. 14, fig. 11.)
- teōk, testicles. 80-9.
- te'ge^ε, ear. 110-2.
- ga^ε, hair. 143-8.
- ge^ε, marrow. 110-2.
- kī^ε, butt.
- kwa ne, shoulder, arm. 102-15; 160-7.
- kwañ ke, ribs. 133-9.
- kwe^ε, 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^ε, 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 tcete, daughter. 176-10.
- ye^ε dûñ, husband. 132-14.
- lō, dog. 101-6.
- nān, mother. 105-7.
- ta^ε, father. 105-7.
- t'ē cī^ε, sister. 144-4.
- teel^ε, younger brother. 141-12.
- teai, grandchild. 97-16; 148-11. (Pl. 14, fig. 13.)
- teō, grandmother. 97-16. (Pl. 13, fig. 15.)
- teûñ ka nai, uncle. 172-3.
- te'gī, grandfather. 153-10. (Pl. 13, fig. 11.)
- ge dûñ, brother-in-law. 153-18.
- gûn dan, son-in-law. 128-7.
- kī, boy. 102-6. (Pl. 14, fig. 9.)
- kīk, 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'yaŋ, woman. te'yaŋ kī. women. 110-15.

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

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

te'yan teũñ, old woman. 152-3.

s teō teiñ, my grandmother. 147-5.

-ta, the plural of the last.

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

-k'ûets, of uncertain meaning.

te'yaŋ k'ûets, old women. 105-1.

-kī ya hũñ, 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 hũñ, water people. 175-1.

-gũñ, of uncertain meaning.

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

Locative Suffixes^{15a}

-dũñ, at.

ye dũñ, house place. 113-15.

yī teō dũñ, dance house place. 145-6.

se ta' dũñ, rock creek. 107-16.

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

-ta', among.

ye bī^ε ta', houses among. 171-17.

ne^ε k'wût ta', countries. 157-6.

n cōn ta', good places. 173-6.

ca'na^εta', creeks, creeks in. 82-14; 93-11.

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

ō ye ta', under places. 180-1.

-te'ũñ^ε, toward.

tō te'ũñ^ε, water toward. 176-6.

e naŋ te'ũñ^ε, my mother toward. 120-11.

-bī^ε, in.

ye bī^ε, house in. 97-11.

ō da^ε bī^ε, its mouth in. 128-15; 182-5.

^{15a} See also the postpositions used with pronouns, p. 39.

- wa tē'a mī^ε, hole in, 156-12. (Pl. 4, fig. 9.)
 sak tō^ε bī^ε, spring in. 115-10.
 cīe bī^ε, red mountain, 102-15. (Pl. 15, fig. 12.)
 ts'əl bī^ε, basket in. 115-10.
 kwō^ε mī^ε, fire in. 110-4.
- bī^εk', inside.
 ya' bī^εk', sky in. 101-15. (Pl. 15, fig. 15.)
 ye bī^εk', house inside. 99-5. (Pl. 15, fig. 14.)
 tō bī^εk', water inside. 155-4.
 ō la^ε bī^εk', its hands in. 114-8.
- bī^ε ūñ^ε, toward, in.
 ya' bī^ε ūñ^ε, sky in. 81-2; 99-10.
 ye' bī^ε ūñ^ε, house in. 110-15. (Pl. 15, fig. 13.)
- k'wūt', on.
 ō tēi^ε k'wūt', its tail on. 162-14. (Pl. 9, fig. 9; pl. 20, fig. 1.)
 ū sī^ε da k'wūt', crown of its head on. 76-5.
 ū de^ε k'wūt', its horn on. 76-3.
 ne^ε 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.
 tēūn wī ye, tree under. 97-3.
- tūk gūt, between.
 ō na^ε tūk gūt, its eyes between. 76-2.
 ye tūk gūt, house middle. 142-13. (Pl. 16, fig. 1.)
- L^εūt, middle (time or place).
 ne^ε L^εūt, earth middle. 75-3; 104-11. (Pl. 16, fig. 4.)
 cīn L^εūt, summer middle. 121-14.
 ta L^εūt, ocean middle. 126-8. (Pl. 16, fig. 7.)
 kai L^εūt, winter middle. 113-14.
- būñ a, before, alongside of.
 kwōñ^ε māñ a, fire before. 119-16.
- ne^ε ūñ^ε, other side of, "its back towards."
 tō ne^ε ūñ^ε, water other side. 126-6. (Pl. 11, fig. 9.)
- ū nō^ε, behind.
 ne^ε ū nō^ε, hill behind. 164-16. (Pl. 4, fig. 7.)
 tēū nō^ε, tree behind. 103-5.
- lai^ε, on top, "summit, point."
 ne^ε lai^ε, earth top. 161-14.
 ū laik', their tops. 132-15.
 kw tēi^ε lai^εk', 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^e bûL, dress with. 166-6.

k'a^e 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.

ō te lī^e bûñ, its liver for. 109-6.

sak tō^e bûñ, "spring will be." 88-4.

-wûñ, for.

te'a wûñ, food for. 123-3.

tō wûñ, water for. 118-4, 123-3.

-hīt', -hût, at time of.

ciñ hīt', summer time. 121-5.

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

djiñ hût, day time. 105-7.

kai hīt', winter-time. 121-11.

-ût, at (perhaps a form of the last).

Le^e ût, night in. 136-1.

-ye, it is (simple affirmation).

ne^e ye, country is. 120-14.

c nañ ye, my mother is. 120-11.

dō ū sūñ^e 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' teō, bunch grass. 94-7.

dûc teō, grouse. 72-5.

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

ges teō, 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^ε, by or near.

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

yîcte, wolf. 71-6. (Pl. 15, fig. 1.)

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

e 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^ε 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^ε sōcte, spike back. 108-8.

-tel, -teL, wide, flat.

Lō^ε tel, flat fish (?)

Lō^ε 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 NOUNS¹⁶

The First Noun qualifies the Second

in tee^ε bañ, deer female. 144-2.

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

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

tō sī^ε dûn, water-head-place. 87-6.

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

teûn wō^ε, "tree teeth," hook. 158-7.

teûn sī^ε ts, "tree head small," pine cones. 115-13, 117-12.

teûn sûts, "tree skin," bark. 137-14.

ges na^ε, salmon eye. 121-12.

k'a^ε s'ûL tiñ^ε, arrow-bow. 144-9.

With Possessive Prefix for Second Component

ne^ε ū teī^ε dûñ, earth tail place. 86-9.

te' kak' bī ne^ε, 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^ε nes, "fish-teeth-long." 86-1.

¹⁶ III, 19.

NOUNS COMPOUNDED WITH ADJECTIVES

-n teag, large.

ne^ε n teag, country large. 97-16.

tō nai n teag, fish big. 85-11.

wō^ε 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^ε, bad.

ne n ce^ε, land bad (mud springs). 106-2.

-nes, long.

la^ε nes, "hand long," raccoon. 112-5. (Pl. 1, fig. 1.)

Lō^ε 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^ε n telts, "foot broad," a heron. (Pl. 20, fig. 11.)

da^ε ya^ε n tel ī teō; "mouths are flat large," geese. 158-14.

-n Lûts, stout, rough.

tō n Lûts, water rough. 86-6.

-L gai, white.

ya^ε L gai, louse white. (Pl. 15, fig. 8.)

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

naL gī L gai, white duck. 148-3.

seL gai, white stones. 143-4.

-L teik, red.

yō^ε L teik, beads red. 176-14.

tō nai L teik, fish red. 124-15.

-L tsō, blue.

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

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

-L cûñ^ε, black.

tō L cûñ^ε kwōt, black water creek. 98-14.

ges L cûñ^ε, salmon black. 86-2. (Pl. 15, fig. 10.)

-L cīk, shining.

na^ε L cīk, eye shining. 181-9. (Pl. 15, fig. 11.)

-dûl bai, grey.

ne^ε dûl bai, (a pine). 86-13. Pl. 20. fig. 5.)

lete ba, grey clay. 76-2.

-dûl k'ûs, brown (?).

Lō^ε dûl k'ûs, grass dry. 121-13.

-L tûk (?)

tûn L tûk, leaves die(?). 121-13.

-t biñ, sharp, pointed.

sī^ε t biñ, "heads sharp," a bulb. 149-4.

-tc'its, rough.

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

-Lañ, many.

wō^ε Lañ, "teeth many." 149-1.

The two following probably have descriptive adjectives.

ta dûl gai tcō, hornet. 151-2.

ta dûl k'ûts, milksnake. 178-9.

NOUNS COMPOUNDED WITH VERBS

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

yō^ε gût Lōñ, "beads woven." 176-13.

yō^ε tcil 'iñ, "bead"(?), abalones. 84-12. (Pl. 20, fig. 6.)

Lō^ε n'ai, "grass lies," grass game. 146-11. (Pl. 20, fig. 4.)

ne^ε te li^ε, earthquake. (Pl. 20, fig. 9.)

nûn kwōs tiñ, wild cherries. 131-12.

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

sī^ε bīs 'an, "head(?)", head net. 113-8; 147-1.

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

sne^ε bûL gûl li^ε, "my leg with is tied," my garter. 176-16.

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

tsō^ε kwī t'iñ, "milk it has," a plant. 149-2.

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

teûm meL yīts, "stick tied with," net stick. 169-5.

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

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

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

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

gac tō 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 NOUNS¹⁷

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.)

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

- Le dōñ^ε, salt. Stem -don, to be bitter. 85-3.
 L tag, black oaks. 89-17. (Pl. 16, fig. 12.)
 L teûe, dust. 165-1.
 nal teûl, white thorn. 91-14. (Pl. 16, fig. 10.)
 naL cōt, grass-snakes. 124-11. (Pl. 10, fig. 8.)
 naL tōn^εts, kangaroo-rats. Stem -tōn, to jump. 73-10.
 na nin 'ai^ε k'wût, "it has horizontal position on," dam on. 168-9.
 na dil^ε, "they hang," sugar-pines. 86-17. (Pl. 1, fig. 8; pl. 19,
 fig. 1.)
 na gai, "it travels," moon. 81-4.
 na^ε gi, "it is carried," or "it carries," quiver. 147-1.
 nō le, deeps(?). Certain mythical places in the ocean. 125-16.
 sak tō^ε, 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 kût, magnesite beads. 176-13.
 seL k'ût 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 kûets, fawn. 108-9. (Pl. 19, fig. 5.)
 dûl nīk, whistles. Root -nī "to speak, to make a noise." 165-7.
 dûl teik, yellow pine. Stem -teik, red. 86-13.
 ta' tsit, low tide. 123-15.
 te lañ, whale. 83-15.
 te kûs le^ε, kelp. 85-10.
 t yīts, sea-lion. 83-11.
 t kac teō, pelicans. 72-13. (Pl. 15, fig. 3.)
 t bûL, 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'ûs nō^ε, "they are vertical," mountains. 71-2. (Pl. 19, fig. 6.)
 ts' kəL dûñ, he had walked place. 116-13.
 te'e naL dûL, comb. 172-15.
 te'e nes, thunder. 77-12.
 te'e k'as, brush fence. 115-16.
 te' wōe, foam. 121-16. (Pl. 19, fig. 11.)
 te' ga, basket pan. 113-10. (Pl. 19, fig. 10.)
 te ga ts'e^ε, twine (rolled on the thigh). 116-10. (Pl. 19, fig. 8.)
 gun da nit, spring was. 121-13.
 kal dae, "it comes up(?)," morning star. 101-13.
 kwī yañ, old men. Stem -yañ, to grow, to pass through life. 105-1.
 kwûn tûe ka ta, shallow places. 75-2.
 kwûn teL, valley. Stem -teL, to be wide, or flat. 91-14. (Pl. 19,
 fig. 12.)
 k'it da ye, flowers. 78-6.
 k'ûs teL, flat way. Stem -teL, to be wide, or flat. 181-3.

VERBS WITH INSTRUMENTAL PREFIX USED AS NOUNS.

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

POLYSYLLABIC NOUNS UNANALYZED¹⁸

- a dīts, grasshoppers. 94-8.
 in tce^ε, deer. 71-4.
 ī da kī, (a kind of rope). 114-1.
 ī dakw, Wailaki. 172-8. (Pl. 17, fig. 1.)
 ō 'est', pestle. 113-9.
 ūn tcūn, peppernuts. 94-7.
 yai in tañ^ε, mole. 96-6. (Pl. 20, fig. 3.)
 wa te'añ, hole through. 78-9. (Pl. 16, fig. 8.)
 la ce^ε, 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^ε 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 tcūñ, tar-weeds. 94-4. (Pl. 16, fig. 15.)
 nûn te'ût, strings. 117-13.
 nûn ka dûñ, men. 165-13.
 sa tcūñ, tan-oaks. 88-9.
 sùl sùnte, chipmunks. 73-8.
 sùn Lants, a star or constellation. 99-8.
 sùl gīts, lizard. 97-4.
 ca' na^ε, creek. 79-3. (Pl. 4, fig. 6; pl. 17, fig. 4.)
 ban yō, turtle-doves. 92-16.
 ban sīts, sandpipers. 73-2.
 ban tō^ε, 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 lō, owls. 72-2. (Pl. 17, fig. 12.)
 bûte k'ai^ε, seagulls. 72-12. (Pl. 15, fig. 16.)
 das tcañ, gopher. 122-6.
 da tait, grey squirrels. 73-6.
 da tcañ^ε, ravens. 72-2.
 da tceL, storage bin. 138-2.
 dō li, bears. 71-6.

¹⁸ III, 16.

- dûl lants, salamanders. 84-4.
 dûn dai, arrowheads. 111-4.
 ta ka tee, crawfish. 91-2.
 te le^ε, sack. 113-7. (Pl. 18, fig. 1.)
 tûn nî, roads.^{18a} 78-4. (Pl. 17, fig. 13.)
 tûn nûc, manzanita berries. 94-5.
 tsûs na, yellow-jackets. 91-7.
 teaL nî, varied robins(?). 72-4.
 teî lil, screech-owl. 92-8.
 teîl lê k'e, slime. 161-12.
 tein nûi^ε, stuffed deer heads. 177-10.
 teî teañ, white oak. 131-11.
 teō bağ, poison. 163-7. (Pl. 18, fig. 6.)
 teûn nûL teûnte, Lewis's woodpecker. 72-8. (Pl. 19, fig. 13.)
 teûn te' bağ, woodpeckers. 72-11. (Pl. 18, 4.)
 teûn te' gi 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'i be teiû, fir. 86-8.
 te'ō la kî, meadow-larks. 72-10.
 te'ûn t yac, condors. 72-7.
 te'ûn t'añ, acorns. 88-15.
 te'ûs sai^ε, chicken-hawks. 72-3.
 te'ûsts, mill-basket. 113-9.
 te'û be, firs. 90-1.
 te' la kî, sapsuckers. 73-11.
 te' lê linte, humming-bird. 102-12.
 te' naL dũñ, adolescent girl. 175-10. (Pl. 19, fig. 7.)
 te' si teûn, coyote. 72-1. (Pl. 18, fig. 9.)
 te' kak', net. 84-8. (Pl. 18, fig. 5.)
 t'e kî, girls. 111-2. (Pl. 17, fig. 15.)
 gō ya nî^ε, stars. 74-7. (Pl. 18, fig. 7.)
 kaç kits, old man. 108-2. (Pl. 18, fig. 8.)
 ke bûl, knife. 78-11.
 kî tsa^ε, basket-pot. 113-8.
 kwî yint, pigeon. 73-12. (Pl. 18, fig. 10.)
 k'il lek, boy. 119-7.
 k'ûn ta gits, jack-rabbits. 73-6. (Pl. 18, fig. 11.)

PRONOUNS^{18b}

PERSONAL

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

^{18a} Cf. Hupa tin, road, III, p. 13.

^{18b} 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^ε, mine. 141-6. (Pl. 22, fig. 2.)
 ca, for me. 103-9. (Pl. 22, fig. 1.)
 cūL, with me. 137-2.

First Person Plural

ne hiñ, we. (Pl. 5, fig. 8.)
 n hī ye^ε, ours.
 n hūL, with us. 125-2.

Second Person Singular

niñ, you. 79-7.
 nī ye^ε, 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 hī ye^ε, yours.

Third Person

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

PERSONAL DEMONSTRATIVES¹⁹

hūñ, he, him.^{19a} 174-1; 123-16.
 hūL, with him. 94-13.
 yōñ, that fellow. 167-9.

¹⁹ III, 31-33.

^{19a} 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 ī, over there. 100-4.
 yō ī, yonder. 100-7.
 yō ye, there it is. 182-3.
 yō òñ, over there. 127-14. (Pl. 21, fig. 7.)
 yō òñ ha^ε, yonder. 75-3.
 yō yī de^ε, far north. 77-1. (Pl. 21, fig. 5.)
 yōk', way. 104-9.
 Cf. yōñ, that fellow. 167-9.

INTERROGATIVE AND INDEFINITE PRONOUNS²⁰

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^ε, 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^ε, 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^ε, something. 99-15.
 ta cō kwûc, somewhere I guess. 119-1.
 taç cō^ε, sometime. 135-13.

²⁰ 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^ε, if anything is wrong. 166-10.
 dạc tīn dji, why does it do that? 130-14.
 dạn te cō^ε, something. 167-3.
 dạn te ca mūñ, how will it be? 78-13.
 dạn te cō kwúc cút, something wrong I guess because. 115-4.
 dạn te gī, how. 139-11.
 da ya^ε t'ĩn ge, what did they do? 166-4.
 da ya^εn dji, what they say. 153-14.
 dạn laqñ gi, how many. 166-12.
 dan ca ũñ, who is it? 170-12.
 da nī cañ, who is he? 97-4.
 da hín teī, what you say. 176-10.
 dī kwōn dī, what kind. 80-4.
 dō n kē hīt', nothing too bad. 128-1.
 dō dan cō^ε, nobody. 99-4.
 t'a đin cō^ε kwúc, for some reason. 136-8.

ADJECTIVES²¹

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^ε, another, certain similar ones which are not conjugated are included.

- ō wūñ, some. 122-14.
 wan t'a^ε, some. 91-10.
 wūn, some. 95-6.
 la^ε, 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.
 lan tē le, will be many. 173-7.
 le ne^ε ha^ε, 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.)

²¹ III, 33.

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

NUMERALS²²

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^ε nək ka^ε*, two-two, has displaced *diñ kût* which prevails in the other Athapascan dialects nearby.

CARDINALS

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

MULTIPLICATIVES

- tak' dũñ, three times. 165-11.

DISTRIBUTIVES

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

²² III, 32.

DIRECTIONAL WORDS²³

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^ε, 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^ε, to the west, down hill.

yō yī se^ε, far west. 126-6.

hai se^ε, down hill. 106-3.

dī se^ε, 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^ε, to the north, perhaps originally "down-stream."

yō yī de^ε, far north. 77-1.

hī de^ε, north. 77-1.

hai de^ε te'ûñ^ε, north toward. 115-7.

dī de^ε, north. 76-12.

-da^ε ûñ, from the north.

yī da^ε ûñ, from the north. 75-3.

hai da^ε ûñ, from the north. 78-8.

dī da^ε 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.

²³ 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^ε ûñ, both sides. 144-10. (Pl. 21, fig. 9.)

ADVERBS²⁴

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 dûñ, far. 75-6.

nes dûn ē, it is far. 140-17.

nes dûñ ha^ε, far away. 86-14.

nûn kwī ye, underground. 75-8. (Pl. 21, fig. 12.)

hakw, right here. 160-1.

ha kwañ, up there. 182-9.

da^ε, up. 99-15.

de k'a, here. 79-2.

dī ûn, up there. 109-10.

djañ ha^ε, here. 97-9.

t ga ma, along shore. 77-1.

t ga mats, by the shore. 155-1.

kûn dûn ne, close. 104-13.

kûn dûnte, nearby. 79-6. (Pl. 22, fig. 12.)

kwûn nûn ûñ, up this way. 85-8.

TIME

han dût, next time. 136-4.

ha gī, long time. 134-3.

ha ge^ε dûñ^ε, long time. 106-17.

ha ge kwûc, long time probably. 139-1.

hakw dûñ^ε, then. 71-2. (Pl. 5, fig. 7.)

hō ta, then. 84-10.

²⁴ III, 328-338.

- dañ^ε, already, long ago. 78-14; 121-13.
 da sits, soon. 136-5. (Pl. 22, fig. 6.)
 dō k'ũñ, already, not recently. 136-7; 175-1.
 dō k'ũñ ha^ε, long ago. 155-15.
 t'ũn dũñ ha^ε, all the time. 113-1.
 gũn t'ē, now. 81-2.
 kac bi^ε, 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 dũt', before. 137-5. (Pl. 22, fig. 11.)
 k'ũn dũñ, yesterday. 128-7. (Pl. 22, fig. 13.)
 k'an cañ, this time. 167-8.
 k'at de^ε, 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.
 nĩkts (nĩ ikts), slowly. 100-13; 140-16. (Pl. 21, fig. 13.)
 sa'dũñ, alone. 120-16.
 sa'dũñ ha^ε, alone. 87-7.
 sa'dũñ k'wa, alone. 172-3.
 sũt', little way. 161-5.
 st'ō^ε, nearly. 123-8.
 cañ, only. 78-6.
 ca nĩ, only. 71-2.
 cō, too much. 82-10.
 cō^ε, 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^εt, in vain. 159-12.
 kakw, fast. 93-12.

POSTPOSITIONS²⁵

The following elements when suffixed to nouns or pronouns make prepositional phrases.^{25a}

-ye, under.

ō ye^ε, under. 101-6. (Pl. 21, fig. 2.)

ō ye ta^ε, under places. 180-1.

²⁵ III, 339-343.

^{25a} 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^ε, top, end, on top of.

ū lai^ε, 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^ε, without the knowledge of.

kw na tag ha^ε, without his knowledge. (Pl. 8, fig. 9.)

ū na tag ha^ε, not knowing. 156-9.

nō na tag ha^ε, without our knowledge. 129-15.

kūc na tag ha^ε, without their knowledge. 155-8.

-nīte, midway of.

ō nīte, half-way. 122-15.

ō nī teūt, its middle. 162-14.

-nō^ε, behind.

ū nō^ε, behind it. 103-2.

-nē dūñ, base of.

kin nē dūñ, its base. 182-10.

-bī^ε, in. (The element may be -ī^ε, b being the pronoun.)

bī^ε, in it. 97-13. (Pl. 6, fig. 7.)

đī bī^ε, this in. 90-16.

-đai^ε, outside of.

ō dai^ε, outside. 98-4. (Pl. 21, fig. 4.)

-đūk', up, on top.

kw dūk', top. 127-9.

-ta', among.

bī ta', among. 107-14.

đī 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^ε, to, toward.
 a te'ûñ^ε, to himself. 87-7.
 ô te'ûñ^ε, to him. 79-9. (Pl. 3, fig. 4.)
 û te'ûñ^{ts}, close by. 156-10.
 nō te'ûñ^ε, to you. 97-7.
 L te'ûñ^ε, together, toward each other. 104-1.
 kw ts'ûñ^ε, to him. 174-2.
- te'ûñ a, before, in front of.
 û te'ûñ a, before it. 153-3; 77-7.
- t'ûkw, above, beyond.
 ô t'ûkw, above, way back. 77-3; 104-11.
- t gûñ, around, behind.²⁶
 a te gûñ, around yourselves. 169-4.
- kwa^ε, for.
 kw kwa^ε, for him. 119-1.
 nō kwa, for us. 181-7.
- ke^ε, behind.
 ske^ε, after me. 97-10.
 ske^ε ha^ε, 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 INTERJECTIONS²⁷

- ajL te, come on, well. 98-6; 125-7.
 a bī, stop. 100-1.
 ē he, that is so. 173-14. (Pl. 21, fig. 1.)
 û wē, O yes. 100-10.
 ûñ, it was. 182-9.
 L^εûñ, so it is. 100-3.
 na^ε a^ε, here. 97-13.
 nī ī, say. 164-9.
 nī īe, say. 100-3.
 nō dō^ε, nō^c dō, go ahead, come. 103-7; 115-7.
 he ū^ε, 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^ε, listen. 182-15.
 ka^ε, well. 76-12.

²⁶ Cf. prefix t gûn in t gûn nas t gets, he looked back. 132-2.

²⁷ III, 343.

VERBS

In Kato, as in other Athapasean 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.²⁸ This prefix forms an independent syllable except when followed by *c*, the first person singular.

a ya cī lae, took me up. 158-14.

a ne, she said. 152-8.

a nō' t'e, you are. 139-1.

a dōe yī, I boast. 128-1.

a kwūc la ge, I fixed him. 182-14.

ac t'e ye, I am. (Pl. 40, fig. 7.)

²⁸ III, 90.

Adverbial

ya^ε-. Used of motion or position upward or into the air.^{28a} 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 ^εac, he put up. 99-10.

ya_L dac bûñ, you must jump up. 82-16.

yañ ^εai^ε, it stood. 156-15.

ya kwôL t'a, make him fly. 182-16.

ya^ε 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.²⁹ 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^ε, 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.³⁰ Duration .12.

wai in yai, he went around. 97-3.

wai te' gûn get, he struck over. 164-2.

wa^ε ûñ kañ, he placed before him. 129-4. (Pl. 23, fig. 3.)

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

wa ûñ ûñ, she carried through. 180-2.

wa nûn tēi 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.³² The duration of the vowel is about .15.

Le_L yīts, he tied together. 174-15. (Pl. 43, fig. 11.)

Le ges ^εa^ε, encircled. 82-15. (Pl. 23, fig. 5.)

Leñ ^εa^ε, (water) met. 83-6.

^{28a} III, 39.

²⁹ III, 41.

³⁰ Compare the Hupa second wa-, III, 44.

³¹ III, 44.

³² III, 44.

Lûn-. Used with verbs meaning to assemble. It is perhaps related to the last.³³

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.³⁴ 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^ε, I will go about. 133-6. (Pl. 23, fig. 7; pl. 35, fig. 10.)

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

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

na' ke^ε, swim (plural imp.). 172-14. (Pl. 45, fig. 2.)

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

nas ^ε*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.³⁵ The duration of *nai-* is .31, of *na-* .16.

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

na nie ge^ε, I will carry you across. 141-4.

na nûñ ^ε*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.³⁶ 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 ^ε*a*^ε, he stood up a stick. 116-6.

na dôL ^ε*a*^ε *bûñ*, let it stand on end. 108-3.

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

na t gûL ^ε*aL*, he stood them up along. 88-13. (Pl. 26, fig. 8.)

na t'a^ε *bûn dja*^ε, will stand up. 91-17.

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

³³ Compare Hupa *Linyate*, they come together. I, 295-1.

³⁴ III, 48.

³⁵ III, 49.

³⁶ III, 51.

³⁷ III, 51.

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

- na na iL dũL, he moved it up and down. 150-1.
 na na gũL liñ, it runs down. 121-14.
 na na gũL dac, he jumped down. 146-3.
 na na gũñ giñ, he took them down. 145-17.
 na na gũt yai, he came down. 129-11.
 na nũn dac, come down. (Pl. 23, fig. 6.)

nõ-. Used of being in or coming to a position of rest on the ground, and also of reaching other limits of motion.³⁸ 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.

- nõ' ɛac, put it (imp. plu.). 110-11. (Pl. 28, fig. 7.)
 nõ nañ ət, he untied half way. 122-15. (Pl. 44, fig. 6.)
 nõ na ni kats, I fell back. 182-16. (Pl. 44, fig. 11.)
 nõ nũn yiñ, they lived. 160-12. (Pl. 29, fig. 12.)
 nõ cũL gal, throw me. 133-4. (Pl. 25, fig. 1.)
 nõ ga ɛac, he put down. 86-11. (Pl. 23, fig. 11.)
 nõ te'ũn tõe, water reached (a certain point). 75-1. (Pl. 7, fig. 6.)
 nõc geɛ, I carried. 182-1.
 nõn da ɛañ, we put down. 172-2.
 nõl k'as, they fell. 152-2.
 nõL tiñ, he laid him down. 80-6.
 nõɛ ñ ɛan, he placed. 76-3.

nũn-. 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.

- nũn ic gal, let me chop. (Pl. 42, fig. 7.)
 nũn ùn dũk k'eɛ, get up. 100-3. (Pl. 44, fig. 8.)
 nũn yiL t'o gũt, she stung when. 156-15. (Pl. 26, fig. 3.)
 nũn yiL tsũL, (ocean) beats against it. 86-12. (Pl. 41, fig. 2.)
 nũn neL k'ai, he made stick in. 156-14. (Pl. 45, fig. 9.)
 nũn sũL gal, you beat. 129-10. (Pl. 42, fig. 8.)
 nũn s'ũs dũk k'eɛ, he got up. 98-5. (Pl. 23, fig. 10.)
 nũn s'ũs 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.³⁹ The duration of the vowel is .2. It unites with weak prefixes when they directly follow.

³⁸ III, 53.

³⁹ Compare me- III, 46.

- bes ya hût, he climbed up when. 143-9.
 bes giñ, he carried it up. 98-16.
 be cō'lōs, lead me up (imp. plu.). 147-6. (Pl. 6, fig. 1.)
 bē dūl, let us climb. (Pl. 23, fig. 13.)
 da bes ya^ε, he climbed up. 180-6. (Pl. 6, fig. 4.)
 ben t'a tē le, you will fly up. 182-11.
 bee na^ε, 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^ε, it is finished. 172-12.
 be nīL ke^ε e, I have finished. 78-14.
 be dūl 'ai^ε, let us try it. 109-6.
 be gūn 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.⁴⁰ The vowel with considerable aspiration is about .18 in duration.

- da ûn dic ge^ε, I take you up. 141-4. (Pl. 7, fig. 3.)
 da nō la, she put it up. 181-5.
 da bes ya^ε, 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.⁴¹ The duration of the vowel is about .2.

- de dic tañ, I will put in fire. 110-3. (Pl. 39, fig. 2.)
 de dūñ 'ac būñ, you may put in fire. 127-12. (Pl. 23, fig. 15.)
 de t gūn 'añ, he put in fire. 157-13. (Pl. 7, fig. 2.)
 ye te' gūn 'añ kwān, he had put in. 115-14.

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

- dje^ε gūL tal^ε, he kicked open. 81-15.
 dje^ε gūL teel, he split open. 129-3. (Pl. 24, fig. 5.)
 dje^ε gūn t'ats, he divided. 80-3.

tai-, ta-. Used relating to water or other fluids.⁴³ 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.

⁴⁰ III, 58.

⁴¹ III, 61.

⁴² III, 61.

⁴³ III, 61.

tai ^εac bũñ, it (water) will settle back. 85-8.

tai ñan, drink. 88-6.

ta ya ^ε ò ñañ, let them drink. 123-6. (Pl. 33, fig. 5.)

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

Cf. tạn nas djōl^ε, rolled out of fire. 147-9. (Pl. 41, fig. 3.)

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

tạt 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.⁴⁴

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

ta'tas, butcher (imp. plu.). 109-4.

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

dje^ε gũn t'ats, he divided. 80-83.

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

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

te'nōl ^εũts, it ran in water. 174-10.

te'te' gũn tal^ε, he stepped in water. (Pl. 38, fig. 10.)

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

te'nō nĩ gĩ ne, I put in water. 140-1.

nō nĩ gĩ ne, I put it down. 137-2.

t gũn-. Meaning around, back, behind.

t gũn nais ^εañ, 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.⁴⁶

ts'ũn teL del^ε, they ran off. 165-10; 178-10.

te'e-. Meaning out of, correlative of ye-, into.⁴⁷ 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 ^εac, she takes out. 180-11.

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

te'e n tạn, he took out. 170-14.

⁴⁴ III, 62.

⁴⁵ III, 63.

⁴⁶ Compare Hupa tsin-, III, 63.

⁴⁷ III, 63.

te'e n gĩĩ, he carried out. 98-5.
 te'e kũ wũl tĩn, he was pulled out. 160-6.
 te'el gal, he was thrown out. 102-7.
 te'eL t̄ac bũĩ, you must carry out. 104-1.
 te'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.⁴⁸ The average duration is .17, but when the vowel is closed it is about .1.

ka ya^ε cĩ^ε, they dug (bulbs). 148-12.
 kał^ε ai bũĩ, it will grow up. (Pl. 26, fig. 9.)
 ka na gũl l̄e, he came up (out of water). 175-3.
 ka na mĩl^ε, they carried it up (the river bank). 175-4.
 ka nae, sun came up. 81-2. (Pl. 24, fig. 7.)
 ka sĩ del^ε, we came up. 141-2. (Pl. 1, fig. 7.)
 ka gũl^ε aL kw̄aĩ, they had sprung up along. 87-6. (Pl. 27, fig. 7.)
 ka nae bũn dja^ε, shall come up. 99-11.
 k'ē nae bũn dja^ε, it shall go down. 99-12.

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

kai n te bũĩ, (they) must look for. 173-9.
 ka ya^ε ũn te, they looked for it. 179-6.
 kwa nō^ε t̄e, look for it. 164-11. (Pl. 24, fig. 6.)
 ka kw nō^ε te, look for him. 160-1. (Pl. 39, fig. 1.)

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

kō wũn yan, it grew. 166-7.
 kō wũn nũĩ, it (ground) jarred. 177-14.
 kō wũn sũl, it was hot. (Pl. 1, fig. 5.)
 kō wũn teL, level. 106-6.
 dō kō gĩs iĩ, one couldn't see. 81-1. (Pl. 24, fig. 13.)
 kwũn teL t̄e lit, it was becoming flat. 107-3. (Pl. 27, fig. 2.)
 kwũn sat, deep water. 74-10. (Pl. 34, fig. 11.)
 kwũn laĩ, 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.⁵¹

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

⁴⁸ Compare Hupa xa-, III, 56.

⁴⁹ Compare Hupa xa-, III, 66.

⁵⁰ Hupa xō-, III, 94.

⁵¹ III, 57.

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

kwūn t gī yōt, they pursued him. 145-14.

kwūn tin yōt, they ran after him. (Pl. 30, fig. 13.)

kwūn ya yōl, they followed. 179-8.

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

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

kwaL i mūñ, you must do it. 136-2.

kwaL iñ, he did. 129-4.

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

dī kwa^L siñ, he did this way. 79-12. (Pl. 24, fig. 15.)

coñk' kwa^L laç, he did well. Cf. 104-6. (Pl. 22, fig. 3.)

kwūn 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.

kwūn ye i dūL kwūc, underground we will go. 138-10.

kwūn ye dūL tūc tel, we will bury it. 115-8.

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

kwūn ye hī dūL tē le, we will go (underground). 140-15.

tī dūL tē le, we will go. 136-5.

k'e-. Of severing as in biting and cutting.⁵³

k'e te' ūs t'ats, he cut. 146-11.

k'e te' ūn yañ kwan, bitten off. 161-7.

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

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

k'ē nac būn dja^L, it (sun) shall go down. 99-12.

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

*Deictic*⁵⁴

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 te'-. This follows the

⁵² Hupa xa-, III, 77.

⁵³ III, 85.

⁵⁴ 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^ε, 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 ^εiñ^ε, 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^ε nī, she was walking they say. 93-12. (Pl. 2, fig. 5.)
 te'gūn yīc, 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^ε, 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^ε, he made a house. 168-7. (Pl. 30, fig. 9.)
 s'ús liñ^ε, 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^ε, 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 ^εañ, 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^ε, one man looked. 165-11.
 te'n neL iñ^ε, he looked. 88-16.

The plural and the dual when not distinguished by the stem, have ya^ε- in the position occupied by the other deictic prefixes.⁵⁵

- ya^εn ya^ε nī, they said they say. 82-11. (Pl. 4, fig. 4.)
 be ya^εL ^εai^ε, they tried it. 85-2. (Pl. 28, fig. 5.)
 ta ya^ε ō nañ, let them drink. 123-6. (Pl. 33, fig. 5.)
 ka ya^ε ūn te, they looked for it. 179-6.
 ka ūn tē, she looked. 114-9.

⁵⁵ III, 99.

The deictic prefixes *te'*-, *yī*-, and *ya*^ε- 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.⁵⁶

*te'*el na^ε, roast. 109-6.

*te'*ie 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*^ε *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.

e nōL iñ^ε, look at me. 103-9.

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

nō^ε *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 kwie, we will pass the night. 105-3. (Pl. 27, fig. 10.)

n hōc t ge^ε, let me see you. 142-6. (Pl. 43, fig. 2.)

ne ō dūñ, you will die. 177-4.

da' n die ge^ε, I take you up. 141-4. (Pl. 7, fig. 3.)

kw nīL iñ^ε, she looked at him. 134-2. (Pl. 9, fig. 5.)

Cf. *cūL te'nī*, he asked me. 182-3.

e gaL teōs, give me. 97-13.

⁵⁶ 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^ε, 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^ε, 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.⁵⁷

- nas li^ε, he tied up. 145-7. (Pl. 32, fig. 6.)
 nas dûl līn 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 gût dac, he came out again. 149-13. (Pl. 37, fig. 10.)
 ka na gûl læc, she digs out. (Pl. 31, fig. 1.)
 nas liñ^ε, it became (again). 107-8.
 sliñ^ε, it became (first time). 76-9.

t-, te-. With a distributive or progressive force as regards the act itself, its object or subject.⁵⁸ 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 dûl, let us go. 141-6. (Pl. 38, fig. 2.)
 tûc ge^ε, I will carry. 135-4. (Pl. 8, fig. 4.)
 n tō laL, let him sleep. (Pl. 31, fig. 8.)
 te'tōl k'as dja^ε, let him drop acorns. 129-8. (Pl. 10, fig. 4.)
 tût bûl, it rains. 74-4. (Pl. 36, fig. 12.)
 te sīL teōl^ε, I stole. Cf. 141-15. (Pl. 42, fig. 1.)
 te't te gûs teī^ε, 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^ε 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^ε 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.)

⁵⁷ III, 67.

⁵⁸ 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^ε, he sprinkled. 123-2. (Pl. 23, fig. 9.)

na de gût tsan, they heard again. 107-6.

na dīe tea, let me eat. (Pl. 24, fig. 12.)

na dōL^εa^ε, pile up. 103-11.

na dōL^εa^ε būñ, let stand on end. 108-3.

de dūñ^εaq, 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^εaq, take them in. 113-4.

ye heL a, come in. 143-1.

yī he dūL, you go in. 97-10.

ya^ε hes giñ, they carried it. 129-14.

naī hes^εañ, 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^ε, if you go back. 137-10.

na he sīL^εûts 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 īñ^ε, we will look. 173-17.

*Second Modal*⁵⁹

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

⁵⁹ Cf. Hupa w-, III, 95.

certain adverbial prefixes without much regard to their meaning.⁶⁰

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 dūL, we will go. 96-13.

gūñ eL, you carry. 137-13.

gūc eaL, I walk. 163-10.

ya^ε gūL gal, he threw up. 142-3. (Pl. 23, fig. 1.)

ye' te' gūn yai, he went in. 132-13. (Pl. 23, fig. 2.)

ta gūt t'ats, he butchered. 175-4. (Pl. 24, fig. 2.)

dje^ε gūL teel, she split open. 129-3. (Pl. 24, fig. 5.)

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

kwūt te' gūn yai, he went down. 116-5. (Pl. 24, fig. 9.)

gūL teat, 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^ε sta, he was sitting in. 132-3. (Pl. 6, fig. 7.)

te'ūs li^ε, 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^ε, we came up. 141-2. (Pl. 1, fig. 7.)

⁶⁰ 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^ε 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.⁶¹

- nī ya ye, I came there. 136-17. (Pl. 29, fig. 6.)
 nī gī ne, I bring. 138-14. (Pl. 43, fig. 8.)
 nō' ʼac, you (plu.) put it. 110-11. (Pl. 28, fig. 7.)
 na nūñ ʼai, a fish-weir (it is across). 133-9. (Pl. 28, fig. 3.)
 nō' ʼac, you (plu.) put it. 110-11. (Pl. 28, fig. 2.)
 be nīL ke ʼe, 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.⁶²

- ûc yīt, I will make a house. (Pl. 30, fig. 8.)
 ûc teī ge, I cried. 140-6. (Pl. 8, fig. 6.)
 ôc lañ ʼe, I will get. 137-2. (Pl. 24, fig. 11.)
 na ca ʼe, I go about. 133-6. (Pl. 35, fig. 10.)
 nûc ʼi ne, I saw it. 137-1. (Pl. 28, fig. 10.)
 bec ʼai ʼe, I will try it. 109-9. (Pl. 5, fig. 5.)
 bec na ʼe, I will roast. 168-16. (Pl. 33, fig. 2.)
 da'n die ge ʼe, I will pick you up. 141-4. (Pl. 7, fig. 3.)
 tûc ge ʼe, 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.)
 kwæc ʼi ne, I always do that. (Pl. 28, fig. 12.)
 na hûc da, I will go back. 132-8.
 na hûn dae, go back. 115-7.

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

- 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.)

⁶¹ III, 95.

⁶² Compare Hupa -iūw, -ūw, and -w, III, 97.

⁶³ III, 100.

- cō^ε gī la ge, I fixed it good. 76-12. (Pl. 31, fig. 5.)
 dō yī he^ε 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^ε, 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.⁶⁴

- nañ dūl^ε a^ε, we will make a dam. 163-11. (Pl. 28, fig. 1.)
 na dūl yīc, let us rest. 140-18. (Pl. 30, fig. 5.)
 dō yī de he^ε 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^ε nō dūg ge^ε, we will put in water. 139-9. (Pl. 24, fig. 3.)
 ka^ε dūt tea^ε, 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^ε, 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.⁶⁵

- ūñ qōt, spear it. 128-12. (Pl. 44, fig. 7.)
 na nūn dac, come down (imp.). (Pl. 23, fig. 6.)
 de dūn^ε a^εc, put on the fire (imp.). 127-12. (Pl. 23, fig. 15.)
 te^ε 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^ε ūL dūk, crack it. 138-2. (Pl. 38, fig. 8.)
 k^ε wūn nūl lūc,⁶⁶ put it on. (Pl. 31, fig. 7.)
 te^ε ūn yañ, you eat. 125-7. (Pl. 29, fig. 13.)
 te^ε o^ε yañ, you (plu.) eat. 148-6. (Pl. 29, fig. 10.)

The prefix appearing in the second person dual and plural is

⁶⁴ III, 98.

⁶⁵ III, 98.

⁶⁶ n assimilated to the following l.

-ō', in which the aspiration is quite marked. The third modal *ɿ* 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,⁶⁷ look at them. 164-9. (Pl. 25, fig. 13.)
 na' be, swim. 111-2. (Pl. 36, fig. 9.)

Third Modals⁶⁸

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^ε, let him drop it. 129-8. (Pl. 10, fig. 4.)
 te'ōL tei dja^ε, 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^ε 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, -tā^ε, referring to movement of the feet has

⁶⁷ *ō* is a prefix, see p. 52.

⁶⁸ III, 34.

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

na ûn gûL tãL, he kicked out. 89-7.

nō dûn tãL, you step. 82-1.

nō t gûn tãL^ε, 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 tîn, he sick lay down. 158-4.

nōL tiñ, he laid him down. 80-6.

stîñ, lay. 100-2.

nō^t 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^ε, let him drop. 129-8. (Pl. 10, fig. 4.)

gûL k'ãn, a fire was. 108-2. (Pl. 45, fig. 10.)

gûL sañ, it was found. 83-13.

But compare gûL teat, they shouted. 114-3.

gûL teat, 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't gûc, look at them. 164-9. (Pl. 25, fig. 13.)

n hōc t ge^ε, 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 yîñ, he doctored. (Pl. 30, fig. 3.)

dō ha^ε ka nōn t yañ, do not be ashamed. 141-8. (Pl. 30, fig. 2.)

te t bil^ε, it rained. 81-1. (Pl. 36, fig. 13.)

te' òn t gets^ε, 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 heL 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.⁶⁹ 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 (ʼ) which seems in some cases to characterize the definite past is also a remnant of a suffix.^{69a}

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.

-ʼaiʼ, -ʼaʼ, to have position.⁷⁰

bee ʼaiʼ, I will try it. 109-9. (Pl. 5, fig. 5.)

ka lʼaʼ, it sprang up. 76-10. (Pl. 9, fig. 1.)

Le ges ʼaʼ, it was encircling. 82-15. (Pl. 23, fig. 5.)

nai ʼai bûñ, it will be across. (Pl. 23, fig. 8.)

dî ʼûn es ʼaʼ, up there in a row. 109-10. (Pl. 28, fig. 4.)

-ʼaũ, -ʼaʼc, to transport or give position to round objects.⁷¹

de t gûn ʼaũ, he put in the fire. (Pl. 7, fig. 2.)

nõ ga ʼaʼc, he put along. 86-11. (Pl. 23, fig. 11.)

de dũñ ʼaʼc, put on the fire. 127-12. (Pl. 23, fig. 15.)

nõʼ ʼaʼc, put it (plural). 110-11. (Pl. 28, fig. 7.)

⁶⁹ These are discussed above, p. 18.

^{69a} 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 -teʼan and teʼac, 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: -geʼ, -gûc, -geL, -gin (Kato); -we, -wûw, -weL, -wiñ, -wen (Hupa).

⁷⁰ III, 203.

⁷¹ III, 206. This is probably the stem above to which -ũ and -c are added.

-al^ε, -aL, to chew.⁷²

te' gūn al^ε ya^ε nī, he chewed it they say. 109-7. (Pl. 26, fig. 4.)
na te' aL, he was chewing. 143-3. (Pl. 41, fig. 5.)

-ate, -ac, to walk, to crawl.⁷³

ta te' ūL ate ē kwa nañ, (turtles) have come out of water. 95-8.
tūl ac būñ, (turtles) must walk. 121-4.
te't tūl ac būñ, (crawfish) must walk. 121-4.

-ēil, -ēil^ε, to sit (plural only).

nō' il, you stay. 168-1.
te'nūñ ēil^ε, they sat down. 170-8. (Pl. 28, fig. 9.)
nō' ēil būñ, you must stay. 105-2. (Pl. 28, fig. 8.)

-ēiñ^ε, to look.⁷⁴

n dūl ēiñ^ε, let us look. 168-1. (Pl. 3, fig. 3; pl. 28, fig. 11.)
kw nūl in^ε, he looked at him. 134-2. (Pl. 9, fig. 5.)
dō kō gīs iñ^ε, one couldn't see. 81-1. (Pl. 24, fig. 13.)
ya te' kw neL iñ^ε, they saw him. (Pl. 25, fig. 3.)
te'n ne gūL ēiñ^ε, he looked at it. 156-16. (Pl. 25, fig. 12.)
nee ēiñ^ε tēle, I will look. (Pl. 27, fig. 3.)
nūc ēi ne, I saw it. 137-1. (Pl. 28, fig. 10.)

-ēiñ^ε, to do.⁷⁵

kwac ēi ne, I always do that. (Pl. 28, fig. 12.)
kwal iñ^ε, you (plu.) do that. 113-4. (Pl. 28, fig. 13.)

-ēūts, to run, to move aimlessly.⁷⁶

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

-ēūts, to shoot.⁷⁷

te ēūts, he shot along. 144-9.

-yai, -ya, -yac, to go.⁷⁸

da bes ya^ε, he climbed up. 180-6. (Pl. 6, fig. 4; pl. 23, fig. 14.)
ye' te' gūn yai, he went in. 97-11. (Pl. 10, fig. 9; pl. 23, fig. 2.)
te'e nūn yae, come out. (Pl. 24, fig. 4.)
kwūt te' gūn yai, he went down. (Pl. 24, fig. 9.)
te' nūn yai, he came there. 142-14. (Pl. 25, fig. 6.)
te' nūn ya hūt, when he came. (Pl. 26, fig. 6; pl. 29, fig. 8.)
te' tes yai, he went. 116-9. (Pl. 29, fig. 2.)
Lūn tes yai, they came together. (Pl. 29, fig. 4.)
ca k'eñ yai, sun went down. (Pl. 29, fig. 5.)
nī ya ye, I came there. 136-17. (Pl. 29, fig. 6.)

⁷² III, 206.

⁷³ III, 209.

⁷⁴ III, 209.

⁷⁵ III, 211.

⁷⁶ III, 212.

⁷⁷ III, 211.

⁷⁸ III, 212.

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

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

c gīya lē, I am sleepy. 114-10.

-yan, -yae, -yaL, to grow, to become old.⁷⁹

nes ya nī kwa nañ, it had grown.

wūn gūt t yae, 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 -djīe, heart).

dō kw djī yan, he didn't like. 91-7.

dō s teī 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^ε, when it cleared off. 167-17. (Pl. 27, fig. 1.)

-yañ, to be ashamed.

dō ha^ε ka nōn t yañ, do not be ashamed. 141-8.

ka nō t yan, she was ashamed. 180-8.

-yan^ε, -yil^ε, to eat.⁸⁰

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

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

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

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

te' neL yil^ε, she eats up. 180-9. (Pl. 1, fig. 9.)

Cf. nes yī dja^ε, let me eat. 181-12.

-yats, to snow.⁸¹

ō t yats, let it snow. 93-5.

-yel^ε, to stop crying (?).

te't deñ yel^ε, 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^ε, shall be called. 99-7.

-yiñ, to stand.⁸²

sī yī ne, I stand. (Pl. 25, fig. 7.)

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

⁷⁹ III, 219.

⁸⁰ III, 217.

⁸¹ Cf. yas, snow, III, 19.

⁸² III, 220.

-yĩñ, to live at a place.⁸³

nō nūn yĩñ, they lived. 160-12. (Pl. 29, fig. 12.)

-yīc, yī, to speak. (First and second persons only).⁸⁴

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' ic, speak (plu.). 120-8.

-yīc, to break.⁸⁵

te' gūn yīc, he broke it. 79-12. (Pl. 10, fig. 3.)

-yīc, to whistle.⁸⁶

kwōL yīc, he whistled. (Pl. 30, fig. 7.)

-yītc, -yīc, to rest.⁸⁷

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, -yīc, to build a house.⁸⁸

ūc yīt, I will make a house. 168-6. (Pl. 30, fig. 8.)

s'ūs yī(k) c, he made a house. 168-7. (Pl. 30, fig. 9.)

gūl yī c ya c nī, he built a house they say. 83-11. (Pl. 30, fig. 10.)

-yōl, -yōL, yō, to blow.⁸⁹

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' kwil yōs, they took her in. 158-15.

-yot, -yō, -yōl, yōL, to chase.⁹⁰

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 c te'e na 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.)

⁸³ III, 220.

⁸⁴ III, 246. See -nī, -n below, p. 65.

⁸⁵ Cf. Hupa -yeūw, to rub, to knead. III, 220.

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

⁸⁷ III, 220.

⁸⁸ See ye, yīk, house, p. 19.

⁸⁹ III, 221.

⁹⁰ III, 221.

-lal, -lạL, to sleep, to dream.⁹¹

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

n tes lal ya^ε nī, he went to sleep they say. 83-4. (Pl. 31, fig. 10.)

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

ū nas lal, he dreamed about. 145-2.

-lạñ, to laugh.

ya^εs lạn, they laughed. 155-2.

dō slañ, he did not laugh. 103-15.

-lạñ^ε, to get.

ōc lạñ^ε, I will get. 137-2. (Pl. 24, fig. 11.)

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

-lat, to float.⁹²

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

te'n nūl lat, it floated there. 148-1.

-lag, -la', -le', to do.⁹³

kwai la' ya^ε nī, he did it they say. (Pl. 31, fig. 3.)

dī kwa^ε lag, he did this way. 154-5. (Pl. 31, fig. 4.)

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

a cō^ε ūl le', dress yourself. 103-1.

-le^ε, to sing.

te'e lē^ε, he sang. 149-11. (Pl. 32, fig. 1.)

te'e gūl le^ε, he commenced singing. 105-11. (Pl. 32, fig. 4.)

-leG, -le', to swim under water.⁹⁴

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

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

-lī^ε, to snare.⁹⁵

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

nas lī^ε, he tied up. 145-7. (Pl. 32, fig. 6.)

-līñ, to flow.

na na gūl lī ne, it runs down. 121-9.

-līñ^ε, -le, to become.⁹⁶

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

s'ūs līñ^ε, he became. 84-11. (Pl. 32, fig. 3.)

⁹¹ III, 232.

⁹² III, 232.

⁹³ III, 230.

⁹⁴ III, 237.

⁹⁵ Cf. Hupa -loi, to tie, III, 236.

⁹⁶ III, 233.

-lō, to hail.

ō lō, let it hail. 93-6.

-lō, to deceive.

te' kwL lō^e út, when he fooled him. 136-14. (Pl. 26, fig. 5.)

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

-lōs, to lead.⁹⁷

be cō' 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.)

-lût, -Lût, to burn (see Lût, smoke).⁹⁸

ī gī lût ũñ gī, we are burning. 104-13.

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

nais Lût, is burning? 119-6.

na'Lût, you burn. 119-1.

Cf. de lûg, burns. 100-6.

-lûts, to urinate.

bī^e ō' lûts, in it urinate. 138-14.

-lûk, to tell, to relate.⁹⁹

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

dō ha^e wan kwâl lûk būñ dja^e, you must not tell him. 139-13.

-La, to shoot.

ō nō' 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.¹⁰⁰

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 gūt, he jumped across when. 147-7.

-LEG, Le', relating substances of dough-like consistency.¹⁰¹

bī nō' Le', soak them. 110-6. (Pl. 34, fig. 1.)

bī^e 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.)

⁹⁷ III, 237.

⁹⁸ III, 236, 239.

⁹⁹ III, 236.

¹⁰⁰ III, 238.

¹⁰¹ III, 239.

-Lōi, -Lō, -Lōn, to twine a basket, to braid.¹⁰²

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

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

ō' Lō, braid. 113-3.

a de' te'ūs Lō kwan, 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.)

e gī na', I am hungry. 141-14.

e gī na e, I am hungry. 168-15.

-nai', -na', to roast.¹⁰³

te'eL nai', it is roasted. 113-15.

bec na', I will roast. 168-16. (Pl. 33, fig. 2.)

te'geL na', he roasted. (Pl. 33, fig. 1.)

-na (?)

nōL tin na', were left. 158-10.

-nañ, to drink.¹⁰⁴

ta ya' o nañ, let them drink. 123-6. (Pl. 33, fig. 5.)

tai nañ, drink. 88-6.

ta nañ, he drank. 79-2.

-nac, -nai, -na, to go. (Third person only.)¹⁰⁵

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

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

ye gūn nac, went in. 165-15.

ye gī nai', they went in. 107-17.

ye nī na, came in. 143-11.

-nat', to lick with the tongue.

te'ûL 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' te'n nī, yes he said. (Pl. 33, fig. 9.)

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

a dō' ne kwan nañ, you talk. 166-9.

ya'n ya' nī, they said they say. 82-11. (Pl. 4, fig. 4.)

kwûL ûn ya' nī, he told him they say. 151-9. (Pl. 3, fig. 2.)

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

dō kin nec, didn't speak. 141-16.

t gūn nīL, it kept hooting. 179-7.

¹⁰² III, 239.

¹⁰³ III, 242.

¹⁰⁴ III, 243.

¹⁰⁵ III, 242.

-nīc, to play.¹⁰⁶

na gō' nīc, you played with. 134-17.

na gūs nīc kwān, he had been playing. 115-10.

-nûk, to relate.

wûn kw nûk de^ε, you tell about when. 176-2.

-sas, to pull, to drag.

ta nas sas, he pulled it out. 132-7.

tat dûl sas, we dragged out. (Pl. 35, fig. 6.)

-sat, to be deep.

kwûn sāt, deep water. 74-10. (Pl. 34, fig. 11.)

-sat, -sāt, to sit.

nûn sāt, sit down. 140-18. (Pl. 34, fig. 10.)

na nō' sāt, you (plu.) camp. 173-7.

-sī^ε, relating to one's head and its position.

be t gûn sī^ε, had her head close. 152-3.

t gûn na sī^ε, turned heads. 165-12.

-sīl, to steam (?).¹⁰⁷

nē sīl, I am sweating. (Pl. 35, fig. 1.)

-sīl^ε, -sûL, -tsûL, to strike (repeatedly).¹⁰⁸

na neL sīl^ε, it struck. 162-11.

kwûn ye te'ûL sīl, it pounded into the ground. 154-10.

ôL sûL, peck. 113-9.

nûn yīL tsûL, beats against it. 86-12.

-sō (?)

nō te gûl sō, she pushed in. 153-3.

-sûl, -sûL, to be warm.¹⁰⁹

kō wûn sûl, it was becoming hot. 81-2. (Pl. 1, fig. 5.)

gûn sûl le, is hot. 149-7.

gûn sûL, it became warm. 96-4.

-sûñ, to think. (First and second person.)

dō kw ne sûñ, I was insensible. 182-17. (Pl. 35, fig. 5.)

nō nûc sûñ ût, I thought you. 171-6.

-sûn, to hide.

be nō' sûñ, you (plu.) hide it. 113-4. (Pl. 35, fig. 3.)

be nōn sûn kwañ ûñ gī, you were hiding it. 101-10.

be nō gūs sûn, she hid. 135-11.

¹⁰⁶ III, 247.

¹⁰⁷ III, 253.

¹⁰⁸ Cf. -sût, to pound.

¹⁰⁹ See -sil 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.^{109a}
 cũL sũs e, (nobody) sees me. 176-1.
 dũ dũL sũs he, we did not see. 116-18. (Pl. 26, fig. 7.)
- sũt, to fall.¹¹⁰
 nũl sũt, he fell. 147-8.
 te' teL sũt, he fell. 147-7.
- sũt, to pound.¹¹¹
 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.¹¹²
 tee' sũt, wake up. 100-9.
 te'e'n sũt', woke up. 134-13.
- ca^ε, -cac, to go. (First person only.)¹¹³
 na ca^ε, I will go about. 133-6. (Pl. 23, fig. 7.)
 nan ca^ε, I will cross. 154-1.
 ta cac, I went. 182-17.
- ca', to catch with a hook.¹¹⁴
 gũs ca', they caught. 158-8.
- ce', to spit.¹¹⁵
 k'wũt te'e ya ce', they spit on. 154-14. (Pl. 35, fig. 12.)
- cĩn^ε, -cũn^ε, to be black.
 et cĩ nẽ kw̃n nãñ, it had turned black. 94-7. (Pl. 3, fig. 1.)
 nL cũn^ε, black. (Pl. 36, fig. 2.)
- cĩ^ε, to dig.¹¹⁶
 ka te' gũc cĩ^ε, they dug. 148-11. (Pl. 35, fig. 13.)
 ka te' gũn cĩ^ε, they were digging. 148-8. (Pl. 35, fig. 14.)
 ka ya^ε cĩ^ε, they dug. 148-12.
- cõñ, to be good, to be good looking.¹¹⁷
 n cõ ne, it is good. 79-4.
 n cõñ ũñ gĩ, it is beautiful. 100-5.

^{109a} See Hupa -tsis. III, 272.

¹¹⁰ Hupa -tsit. III, 273.

¹¹¹ Hupa -tsit, III, 272.

¹¹² III, 253.

¹¹³ Hupa -hwaí, -hwa, -hwauw, III, 248.

¹¹⁴ Hupa -hwal, -hwal, III, 248.

¹¹⁵ Cf. cek, spit.

¹¹⁶ Hupa -hwe, III, 249.

¹¹⁷ Hupa, -hwõñ, III, 201.

-he^ε, to be tired (but only when used with a negative prefix).

dō yī he^εe, I am tired. 98-1. (Pl. 36, fig. 6.)

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

dō yī de he^ε, 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.)

naç ba nē, I am lame. 133-8.

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

-bat, -baç (-bûc), to embrace (?).

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

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

-be^ε, to bet.

te'ûc be^ε, I bet. 146-12.

-be, -bīl^ε, to pick.

ya^ε te' bē, they were picking. (Pl. 36, fig. 10.)

ya^ε k' tē bīl^ε, they went to gather. 152-5.

ya^ε te' be dūñ, they were picking where. 120-6.

ka gūm me, he gathered. 76-4.

-be, -bīn, -bīc, to swim.¹¹⁸

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.

tūm mīc, swim. 118-16.

-bīl^ε, -būl, -būL, to fall, to rain (plural object).¹¹⁹

te t bīl^ε, it rained. 81-1. (Pl. 36, fig. 13.)

ya^ε ga bīl^ε, they threw over. 149-8.

kw na s'is bīl^ε, he sprinkled around him. 80-6.

cōñk tūt būl, good it rains. (Pl. 36, fig. 12.)

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

-būL, to handle flour (?).

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

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

-būL, to hang up.

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

tūc būL, I will hang up. 115-6. (Pl. 37, fig. 3.)

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

¹¹⁸ Hupa -me, -men, III, 240.

¹¹⁹ Hupa -meL, -mil, -mīL, III, 240.

-bûn, to be small (?).

dō bûn nē kwa nāñ, were small. 95-6.

ya^ε dō mûñ, they became small. 107-12.

-bûñ^ε, to be full.¹²⁰

dē mûñ^ε (din bûñ^ε), it was full. 129-12. (Pl. 37, fig. 1; pl. 6, fig. 6.)

L te mûn^ε, were full. 82-14.

dō te bûn ne, is not full. 149-6.

tes dûl bûñ, we filled. 132-2.

-da, -dai, to sit, to remain.¹²¹

sûn da, you stay (sing. imp.). 79-7. (Pl. 37, fig. 7.)

bī^ε 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^ε dai, he didn't give out. 126-12.

-dac, to travel.¹²²

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^ε, -dûL, to go (dual only).¹²³

te'n nûn del^ε, they came up. 158-6. (Pl. 37, fig. 13.)

ka sī del^ε, 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^ε, -deL, -dûL, to handle objects (plural).

de t gûl del^ε kwañ, had put in the fire. 131-7.

da nōL dēL kwañ, he had put on a frame. 135-4.

ta ya iL dûL, she put in water. 143-4.

-deg, -de', to win.

na^ε te'ûs deg, he won back. 147-1.

na^ε te'ûs de', he won back. 146-14.

kō wañ te' gûl de', from him he won. 146-8.

¹²⁰ Hupa -men, -miñ, III, 241.

¹²¹ III, 254.

¹²² Cf. -dauw, III, 255.

¹²³ III, 256.

-deg, -de', to wash.

te' na te'ús dēg, he washed it. 129-2.

te' na te'gûL de', she washed them. 153-5. (Pl. 38, fig. 3.)

te' na te'ús de, he washed it. 168-16.

-dĩñ¹²⁴, to shine.

tein ús dĩñ^ε, shone. 85-9.

na te' nûn dĩn bûñ, it will be light. 140-4.

cân dĩ ne, the sun shines. 182-13. (Pl. 38, fig. 4.)

-dō^ε, to be none.¹²⁵

n dō^ε bûñ, it will not be. 80-13. (Pl. 38, fig. 5.)

nût dō^ε, all gone. 99-11.

n dō^ε ye, there is none. 109-1. (Pl. 38, fig. 6.)

-dûl, -dûL, relating to the movement of fish in numbers.

nûn dûl, they came. 169-8.

tûn dûL, come. 120-17.

tûn dûL bûñ, must come. 120-18.

-dûL, to move something up and down(?).

na nâL dûL, he moved (a basket) up and down. 150-2.

-dûn, to die.

ne^ε 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'ûc dûk e, I crack them. 140-4.

te'ûL tûk, crack them. 138-2.

te'ûL tûk bûñ, you must crack. 136-1.

-djiñ, to be day.

ô djiñ kwic, about day probably. 134-1.

-djöl^ε, to roll.

tạn nas djöl^ε, it rolled out of the fire. 147-9. (Pl. 10, fig. 1; pl. 41, fig. 3.)

-tal^ε, tãL, to step or move the foot.¹²⁶

te' te' gûn tal^ε, he stepped in water. (Pl. 38, fig. 10.)

nô dûn tãL, you step. 82-1.

te't te gûL tãL, he dragged his foot along. 90-4.

¹²⁴ III, 260.

¹²⁵ Cf. dō, not, the negative prefix.

¹²⁶ III, 261.

-tañ, -tīc, to handle a large object.¹²⁷

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).¹²⁸

te't tan ũñ gi, he is eating. 174-1. (Pl. 38, fig. 11.)

-te, to look for anything.¹²⁹

ka kw nō' te, look for him. 160-1. (Pl. 39, fig. 1.)

ka ũn tē, she looked. 114-9.

ka ya^ε 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 (?).¹³⁰

be gūn teg, he taught. 122-11. (Pl. 39, fig. 3.)

ke gūt t'eg, he taught them. 122-1.

-tin, -tūc, relating to movement or position of an animal alive or dead, with transitive or intransitive meaning.¹³¹

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 niL 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 gāL tūc, you did not give it to me. 179-5.

-tō^ε, relating to position or movement of water.¹³²

nō te'ūn tō^ε, water came so far. 75-1. (Pl. 7, fig. 6.)

-tōñ^ε, to jump or to cause to jump.¹³³

na te'ōL tōñ^ε, 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 li^ε ũñ, I might be cold(?). 133-8.

¹²⁷ III, 262.

¹²⁸ III, 263.

¹²⁹ III, 264.

¹³⁰ Cf. Hupa -tū, -te, -tel, to sing, in a ceremony. III, 267.

¹³¹ III, 264-6.

¹³² Cf. tō, "water," p. 20, and III, 267.

¹³³ III, 267.

-tûk, to burst.

gûL tûk, it burst. 182-5. (Pl. 8, fig. 1; pl. 40, fig. 1.)

-tûk, to kill.¹³⁴

s djî ôL tûk, kill me (plu.) "my heart(?)" 151-8. (Pl. 40, fig. 4.)

-t'a, to use a sling.

na kw nîc t'a kwie, I am going to sling at him. 122-14. (Pl. 40, fig. 9.)

-t'an, relating to wax-like substances.¹³⁵

k'we ya^ε heL t'añ, they stuck on. 170-6.

-t'ats, -t'as, to cut.¹³⁶

yîs t'ats, he cut it. 162-10.

ta gût 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.^{136a}

nûn t'ag, it flew. 182-11. (Pl. 40, fig. 6.)

te'ie t'a tôle, I will feather. 156-5. (Pl. 7, fig. 9; pl. 40, fig. 5.)

-t'e, to have an appearance or disposition.¹³⁷

ac t'ê, I am. 159-10.

a nō' t'e, you are. 139-1.

an dût 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.¹³⁸

dō 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.¹³⁹

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 gût, she stung them when. 156-15. (Pl. 26, fig. 3.)

te't dûL t'ô' kwûc, something stung I guess. 114-14.

¹³⁴ Cf. -tûk, to burst.

¹³⁵ III, 268.

¹³⁶ III, 268.

^{136a} Cf. t'a^ε, feathers, and Hupa -tau, III, 268.

¹³⁷ III, 268.

¹³⁸ III, 269.

¹³⁹ 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.¹⁴⁰

ól sai dja^é, let them dry. 136-3.

gúl tsai, it was dry. 123-4. (Pl. 34, fig. 8.)

te'ús sai, she dried it. 181-4.

-tsañ, -sañ, to find, to see.¹⁴¹

te'úl tsañ, he found. 97-4. (Pl. 34, fig. 6.)

dō ha^é 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^é teō sùl sañ, they listened. 178-1.

-tsō, to be blue.

dùl tsō, blue. 113-13. (Pl. 35, fig. 2.)

-tsût, to know.

dō ò dùl 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^é), to hear.

na ya^é dī ts'eg, they heard again. 106-16.

ka nəl ts'î^é, they heard again. 106-14.

-teaí, -tea, to bury, to cook by burying.¹⁴²

te' gún teaí, he buried it. 129-2.

ka^é dùt tea^é, well, let us cook. 149-7. (Pl. 25, fig. 11.)

be te gúl ca^é, she put in sand. 152-8.

-tcañ, to eat in company.¹⁴³

na dùl tcañ kwañ, he had eaten. (Pl. 41, fig. 4.)

na dīc tcañ ne, I ate. 171-9. (Pl. 41, fig. 6.)

na dīc tea, let me eat a meal. (Pl. 24, fig. 12.)

-tcañ, to defecate.¹⁴⁴

ts' gún tcañ, he defecated. 142-7.

¹⁴⁰ III, 270.

¹⁴¹ III, 270.

¹⁴² Hupa -tewai, -tewa, III, 275.

¹⁴³ Hupa, -tewan, -tewuñ, III, 275.

¹⁴⁴ Cf. Hupa -tewen, -tewiñ, III, 278.

-tean, -teīc, to leave one.

ō teō nō' teīc būñ, you may leave it. 118-1.

dō teōs teīc tē le, I will not leave. 139-18.

ō tsōñ gūt teañ, 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.¹⁴⁵

t gūn tea de, is sick. 140-5.

dūn 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.¹⁴⁶

gūn teag kwān, had become large. 116-4.

ō tea', let be large. 93-7.

wō' n tea', teeth large. 86-5. (Pl. 4, fig. 2.)

-tee^ε, -ce^ε, to be bad.¹⁴⁷

n tee^ε e, bad. 140-18.

dō ha^ε n tee^ε mūn dja^ε, let it not be bad. 171-10.

-teel^ε(?), -teūL (-teeL), to split.¹⁴⁸

dje^ε gūL teel, she split open. 129-3. (Pl. 24, fig. 5.)

gūL teūL, were opened. 125-6.

dje^ε kūL teūL, split it. 80-9.

dje^ε gūL teeL, he split open. 129-3.

-teeG, -tee', (-ce'), to cry.¹⁴⁹

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^ε kw ūn ce', do not for it cry. 117-8.

-teī, to blow, said of the wind.¹⁵⁰

wa nūn teī būñ, it will blow through. 80-14. (Pl. 23, fig. 4.)

-teī^ε, to be red, to dawn.

te' t te gūs teī^ε, it was about dawn. (Pl. 8, fig. 2.)

te' gūs teī^ε, it was red. 148-5.

¹⁴⁵ III, 274.

¹⁴⁶ Cf. Hupa -kya ō, -kya, III, 201.

¹⁴⁷ Cf. te'ūñ gūn tee^ε, he was angry. (Pl. 41, fig. 13.)

¹⁴⁸ Cf. Hupa -kil, -kil, III, 282.

¹⁴⁹ Hupa -tewū, -tewe, III, 280.

¹⁵⁰ Hupa -tee, III, 274.

-tein, -teī, -teīL, to make.¹⁵¹

- ûL teī, make it. 79-8. (Pl. 41, fig. 8.)
 te' gûL teī, it is growing. (Pl. 41, fig. 9.)
 kw na^ε ûL teī, make him live. (Pl. 10, fig. 2.)
 te'ôL teī dja^ε, let him make. 140-2.
 gûL teīñ, they made. 178-3.
 ya^ε heL teīñ, they made. 170-4.
 te'is tein, he made. 77-6.
 gie teīL, I place along. 88-1.

-teōs, relating to flat, flexible objects, such as skins.¹⁵²

- naL teōs, she put. 180-7.
 e gaL teōs, give me. 97-13.

-teōt, -teōl, to steal.

- k't teL teōt, he stole. 118-11. (Pl. 9, fig. 6.)
 eī te sīL teōl^ε, I stole. (Pl. 42, fig. 1.)

-teōk (-cûk), to arrange in a row, to string.¹⁵³

- te' gûñ teōk kwāñ, he had filled. 159-6.
 te' gûñ cûk kwāñ, he had strung. 135-1.

-teûl, -teûL, to be wet or damp.

- na gûL teûL ya^ε nī, he got wet they say. 126-16. (Pl. 42, fig. 3.)
 naL teûL ût, it was wet because. 126-11.

-teûn, -teïc, to smell.

- ye gûñ teûn, he smelled it. 114-4.
 gûL cûn ne, it smells. 109-6.
 sûL teïc, you smell. 141-5.

-teût, -teī, to catch hold of.¹⁵⁴

- yīL teût, caught it. 114-4.
 gûL teût, he caught them. (Pl. 42, fig. 2.)
 te'eL teī^ε ya^ε nī, he caught it they say. 142-5. (Pl. 42, fig. 5.)
 naL tee bûñ, you must catch. 116-16.

-teût', to feed.¹⁵⁵

- kû wa gûñ teût', they fed her. 151-15. (Pl. 36, fig. 4.)

-teût, to stretch.

- nûL teût, you stretch. 78-15.
 te'eL teût, stretch it out. 77-13. (Pl. 42, fig. 4.)

¹⁵¹ Hupa -tewen, -tewiñ, -tewe, III, 276.

¹⁵² Hupa -kyōs, III, 284.

¹⁵³ Hupa -tewōk, III, 279.

¹⁵⁴ Hupa, -kit, III, 283.

¹⁵⁵ Hupa -kit, III, 283.

-te'añ, -te'ac, to shoot with a bow.

s'ús te'añ, he shot it. (Pl. 41, fig. 7.)

gût te'añ^ε, he shot. 110-13. (Pl. 25, fig. 9.)

ûn te'ac, you shoot. 178-1.

-ga, -gai, to walk (third person only).¹⁵⁶

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

na gai bûn dja^ε, shall travel. 99-13.

-gal^ε, -gal, -gaL, to throw.¹⁵⁷

nō tel gal^ε, she threw it. 181-4.

ka te'el gal^ε, he tipped it. 154-3.

k'e gûL gal^ε, she threw away. (Pl. 42, fig. 11.)

na^ε del gal kw̃an, he had poured. 125-13. (Pl. 42, fig. 12.)

ya^ε gûL gal^ε, he threw up. 142-3. (Pl. 23, fig. 1.)

na nōL gaL, put across. 153-18.

nō^ε cûL gaL, throw me. 133-4. (Pl. 25, fig. 1.)

-gal^ε, -gał, -gaL, to drop, to beat.

nañ gûL gal^ε, he beat it. 177-6.

nûn ic gał, let me chop. (Pl. 42, fig. 7.)

nûn sûL gal, you hit. 129-10. (Pl. 42, fig. 8.)

naL gał, hit again. 177-7.

-gan^ε, to be mouldy.

te't gañ^ε, it is mouldy. 167-16. (Pl. 42, fig. 9.)

-gan, -gaL, to kill (with plural object).

ûc gañ, I kill? 96-10.

ô' gañ, kill. 113-6.

te' gûñ ga ne, he was killed. (Pl. 42, fig. 10.)

te'e nō'nûñ a ne, he killed us. (Pl. 25, fig. 4.)

nai gī gaL bûñ, must kill. 173-2.

-gac, to chew.

te'ô gac, let them chew it. (Pl. 5, fig. 6.)

yô gac, let him chew them. 110-7.

-gat, to sew.

te'e naiL gat de, he sewed up. 122-13. (Pl. 44, fig. 5.)

nō na^εn ñat, he untied it. 122-15. (Pl. 44, fig. 6.)

na he gat, he loosened. 122-14.

na hûñ a bûñ, you must untie it. 78-15.

na hûñ at, you untie. 123-7.

-gats, -gaş, to scrape.¹⁵⁸

ô' gaş, scrape. 113-7.

te' ge gats, she scraped them. 153-5.

¹⁵⁶ Hupa -wai, -wa, III, 221.

¹⁵⁷ Hupa -waL, -wûl, -wûL, III, 222.

¹⁵⁸ Cf. Hupa -was, III, 224.

-ge^ε, to whip.

ōL ge^ε, whipped? 102-9.

-gele^ε, -geL, -gûl, relating to the passing of night.¹⁵⁹

gûl ge le, it was getting late. (Pl. 43, fig. 1.)

tea kwōL ge^ε, 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.¹⁶⁰

wai te' gûn get, he struck over. 164-2.

ya^ε te' ōñ ge, they speared. 166-16.

-gets, -gûc, -ge^ε, to look, to see.

n hōc t ge^ε, let me see you. 142-6. (Pl. 43, fig. 2.)

te'ō na gû t gûc, he looked back. 87-13. (Pl. 43, fig. 4.)

te'ont t gets^ε, 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.

-gīñ, to kill.¹⁶¹

sel giñ ya^ε nī, he killed they say. (Pl. 43, fig. 10.)

-gin, -gûc, -ge^ε, -geL, to carry on the back.¹⁶²

te' nō dūg ge^ε, we will put in water. 139-9. (Pl. 7, fig. 5; pl. 24, fig. 3; pl. 43, fig. 6.)

te'n nūg gûc, she brings in. 180-9. (Pl. 43, fig. 7.)

nī gi ne^ε, I bring. 138-14. (Pl. 43, fig. 8.)

te'n nūñ ūñ, he brought it. 135-11. (Pl. 43, fig. 9.)

da n dic ge^ε, I will pick you up. 141-4. (Pl. 7, fig. 3.)

tûc ge^ε, I will carry. 135-4. (Pl. 8, fig. 4.)

te't tes gīn, he carried. 101-9.

gûc geL, I will carry. 141-1.

gūñ eL, you carry. 137-13.

-git, -gûc, to be afraid.¹⁶³

be nē sīL 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.

-gīts, to tie.

Le gīts^ε, he tied together.

teâm meL yīts, a stiek he tied. 169-5. (Pl. 30, fig. 12.)

¹⁵⁹ Hupa -weL, -wil, -wīL, III, 224.

¹⁶⁰ Cf. bel get, spear head. 133-8.

¹⁶¹ Hupa -wen, -wīñ, -we, III, 225.

¹⁶² Hupa -wen, -wīñ, -wûw, -we, III, 226.

¹⁶³ 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.¹⁶⁴

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 yiL kai, not day. 178-12.

yī gûL kaL, it was daylight. 105-5.

yī gûL ka lit, it got light when. 114-5.

-kañ, -kac, -ka, to move a vessel containing liquid.¹⁶⁵

wa^ε 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^ε kac, they didn't net it. 168-14.

kwa te'gûs t ka, for him they dipped. 155-7.

-kañ, -kûn, to be sweet.¹⁶⁶

L kûn, is sweet. 166-11.

tûl ka mûn dja^ε, sweet will be. 91-5.

-ke^ε, to finish.¹⁶⁷

be nîL ke^εe, I have finished. 82-15. (Pl. 23, fig. 12.)

bel ke^ε, he finished. 172-12. (Pl. 45, fig. 3.)

be iL ke get, he finished when. 149-15.

be gec ke ce, I am finishing. 76-7.

-ke^ε, to bathe (plural only).

na' ke^ε, bathe. 172-14. (Pl. 45, fig. 2.)

-ket, to trade.¹⁶⁸

Le te'ôñ ket, they traded. 172-6.

-kût, to ask, to question.¹⁶⁹

dō ha^ε cō dōL kût, do not ask me. 166-8. (Pl. 45, fig. 8.)

¹⁶⁴ Hupa -xa, -xal, -xal, -xûñ, III, 250.

¹⁶⁵ Hupa -xan, -xûñ, -xauw, III, 250.

¹⁶⁶ Hupa -xan, -xûn, III, 250.

¹⁶⁷ Hupa -xe, -xû, III, 252.

¹⁶⁸ Cf. Hupa -xait, -xai, to buy, III, 251.

¹⁶⁹ Hupa -xût, -xûl, III, 252.

-kût, to travel (plural only).

te'n nûl kût, they came. 154-12. (Pl. 45, fig. 6.)

dô ha^e 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.¹⁷⁰

L k'a' bûn dja^e, let it be fat. 85-14. (Pl. 26, fig. 10.)

L k'ag, is fat. 83-15.

-k'ai, to hit (with an arrow).¹⁷¹

nûn neL k'ai, he hit. 156-14. (Pl. 45, fig. 9.)

-k'an, to build a fire.¹⁷²

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' tôL k'aş dja^e, let him drop. 129-8. (Pl. 10, fig. 4.)

ya^e gûL k'as, he threw up. 154-5.

wan t gûl k'aş, she threw up. 144-7.

nô wil k'as, fell. 152-1.

nûn ya^eL k'as, they pushed them in. 154-14.

te' gûl k'aL, it fell. 154-10.

te'îL k'aşL, it struck. 154-11.

-k'e^e, to brace oneself in getting up from a sitting or lying position.¹⁷³

nûn s'ûs dûk k'e^e, he got up. 98-5. (Pl. 23, fig. 10.)

nûn ûn dûk k'e^e, 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.

¹⁷⁰ Hupa -kau, -ka, III, 202.

¹⁷¹ III, 281.

¹⁷² Cf. Hupa, wil kan nei, a fire is burning. I, 151, l. 4.

¹⁷³ 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^ε, to twist.¹⁷⁴

ō^ε k'ûñ^ε, twist. 163-12.

na te' k'ûñ^ε, it is writhing. 177-8.

-k'ûts, to push in.

wəL k'ûts, put in. 105-14.

nai neL k'ûts kwəŋ, had stuck in. 158-4.

təŋ ūs k'ûts, he pulled it out. 127-9.

-qal, -qal, to walk (third person only).¹⁷⁵

te' qal ya^ε nī, he was walking they say. 93-12. (Pl. 2, fig. 5;
pl. 44, fig. 1.)

-qōt, to penetrate with a point, to spear.¹⁷⁶

te' ūs qōt, he speared. 128-13. (Pl. 8, fig. 8.)

ūñ 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 disjoined 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^εe, I have finished. 82-15. (Pl. 23, fig. 12.)

sī yī ne, I stand. (Pl. 25, fig. 7.)

ye s^εa ne, house stands. (Pl. 28, fig. 6.)

ûc ga nē, I kill. 138-4.

na ūñ gūL ^εa^ε 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.

¹⁷⁴ Cf. k'ûñ^ε, withes. 163-12.

¹⁷⁵ III, 284.

¹⁷⁶ 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^e ûñ gī, he is eating. 174-1. (Pl. 38, fig. 11.)

ya^e 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^e nī, he was walking they say. 93-12. (Pl. 2, fig. 5.)

te' gūñ al^e ya^e nī, he chewed it they say. 109-7. (Pl. 26, fig. 4.)

kwai^e la' ya^e nī, he did it they say. (Pl. 31, fig. 3.)

na gūL teūL ya^e nī, he got wet they say. 126-16. (Pl. 42, fig. 3.)

sēl giñ ya^e 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 ^eal 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^e deL gaL kwañ, he had poured. 125-13. (Pl. 42, fig. 12.)

-kwa ñāñ seems to be used with suffix -e, -ē and indicates that the evidence but not the act is directly observed.

et cī nē kwa ñāñ, were black. 94-7.

et ga ye kwa ñāñ, were getting white. 94-5.

ta te'ūL atē kwa ñāñ, turtles have come out of water. 95-8.

te'teL teōt ye kwa ñāñ, someone had stolen. 138-15.

-kwūc, -kwic, is used with the first person only, and denotes conjecture as to past, present, or future happenings.

añ kwūc, it cries I guess. 115-4.

na hūc da kwūc, I will go back. 137-10.

na kw nīc t'a kwic, I am going to sling at him. 122-14. (Pl. 40, fig. 9.)

n he ōL ka kwic, we will spend the night probably. 105-3. (Pl. 27, fig. 10.)

kwūn s'ūs nōL ke^e kwūc, might track us. 142-11.

-kwūl luc. This suffix seems to be related to the last in both form and meaning.

. ûñ gī kwūl lūc, is I think. 170-13.

ūs t'e kwūl lūc ûñ, it is done I guess. 169-1.

Modal

-būñ predicts the act or happening with more or less determination on the part of the speaker that it shall come to pass.

- wa nûn tēi būñ, it will blow through. 80-14. (Pl. 23, fig. 4.)
 nai ʼai būñ, it will be across. 85-8. (Pl. 23, fig. 8.)
 kał ʼai būñ, it will grow up. 84-11. (Pl. 26, fig. 9.)
 nō ʼil būñ, you must stay. 105-2. (Pl. 28, fig. 8.)
 na cōL na būñ, you must doctor me. 166-10. (Pl. 33, fig. 4.)

-dja^ε 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' tōL k'as dja^ε, let him drop. 129-8. (Pl. 10, fig. 4.)
 te'ōL tēi dja^ε, let him make. 140-2. (Pl. 27, fig. 6.)
 kûc na^ε dja^ε, I want to live. 171-7. (Pl. 27, fig. 5.)
 L k'a' būn dja^ε, let it be fat. 85-14. (Pl. 26, fig. 10.)
 a dūl le' dja^ε, we will do it. 83-2.
 ôc t ge^ε dja^ε, I will look at. 149-13.

-teL, -tē 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'ie t'a tē le, I will feather arrows. 156-5. (Pl. 7, fig. 9.)
 nûc iñ tē le, I will look. 165-4. (Pl. 27, fig. 3.)
 be nac ʼai^ε tē le, I will try again. 139-1. (Pl. 27, fig. 4.)
 gûl lôs tē le, he will bring it. (Pl. 32, fig. 9.)
 ce dūn tē le, I will die. 177-5. (Pl. 38, fig. 9.)
 nan dūL teL, are you going home? 120-13.
 na hō tûn nâc teL, will you move? 140-8.
 nûl lin teL būñ, will flow for. 89-5.
 ûL tēi tel, you will make. 139-10.
 na hûn dac teL, will you go back? 137-9.
 na hûc dac tē 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.

- ûL gûl lût, it was evening when. 105-6.
 yai nûl tî nût, they brought it when. 128-16.
 ya^ε gûl k'a sit, he threw up when. 154-11.
 yîL t'ô gût, stuck him when. 156-1.
 Lûn tes ya hût, they came together when. 148-9.
 na nûn La gût, he jumped across when. 147-7.
 ô dji te'ûs tâk ût, he killed because. 157-7.
 wạn nī le get, I swam to because. 175-5.
 naL cûl ût, it was wet because. 126-11.
 nas li^ε nût, he was tied because. 146-5.
 te sī ya hût, I went because. 118-5.

Temporal

-de^ε, 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.¹⁷⁷

- ō djī sōL tūk de^ε, you kill it if. 177-5.
 wūn kw nūk de^ε, you tell about when. 176-2.
 naL kūt de^ε, you come back if. 117-18.
 na nūL gaL de^ε, when you put across. 153-11.
 na he sūn t ya de^ε, if you go back. 137-10.
 ts'ūs qōt de^ε, if he spears it. 128-9.
 te'nūn ya de^ε, if he comes. 142-11.
 gūL gel^ε de^ε, night when. 97-10.
 gūn dō^ε de^ε, is gone if. 140-2.
 kō wūn tūn de^ε, it is cold when. 172-15.
 kō te' gūL 'ūts de^ε, when she runs down. 153-11.

-ūñ expresses a contingency as less certain than -de^ε.

- ūc te lī^ε 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^ε ū leñ^ε, he might track us. 138-10.
 ta nan ō da ū leñ^ε, he might come again. 135-8.

-kwa^ε denotes the continuance of the act until a stated time.¹⁷⁸

- na hūc ga kwa^ε, I am untying yet. 123-10.
 te'n nūn dac kwa^ε, 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 nīL, it kept hooting. 179-7.
 tee'gūl laL,¹⁷⁹ 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.
 tūm mīc, swim. 118-16.

-bī^ε, in. This suffix common with nouns occurs with verbs with the sense of when.

- tea kwūL gel^ε bī^ε, very dark in. 179-8.
 tea kwūL gel^ε bī^ε ūñ^ε, very dark in. 179-7.

¹⁷⁷ III, 321.

¹⁷⁸ Cf. Hupa -ūx, -x, III, 304.

¹⁷⁹ 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 ʼəc 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 kwāñ hût, he had made when. 120-1.

te'ôL yī kwāñ hût, he had named when. 117-12.

te'ûs t'a kwāñ hût, he had feathered when. 116-12.

kê nôL get kwāñ 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 ī 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^ε, I will get. 137-2. (Pl. 24, fig. 11.)

nac be, let me swim.

cô^ε ôc le', I will fix it. 77-3.

tûc ca^ε, 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^ε gī la ge, I am fixing it. 76-12.

te sī yai, I went. 120-17.

ta te sô'bil^ε, have you cooked? 169-14.

tet bil^ε, it rained. 81-1. (Pl. 36, fig. 13.)

tes gin, he carried. 101-11.

TABLE OF ANALYZED VERBS

Adverbial	Deictic	Objective	1st Modal	2nd Modal (n)	Subjective	3rd Modal	Stem	Suffix	
	ya te'	kw	n	(n)		L	ɛiñ		
ya ^ε				g		L	gal ^ε		they saw him. (Pl. 25, fig. 3.)
ye ^t	te'			g		n	yai		he threw up. (Pl. 23, fig. 1).
wa ^ε						n	kañ		he went in. 132-13. (Pl. 23, fig. 2).
Le			ge	s			εa ^ε		she gave him. 129-4. (Pl. 23, fig. 3).
na			de	s			bil ^ε		it was encircling. 82-15. (Pl. 23, fig. 5).
na	te'				ō ^t		Lō		he spilled. 123-2. (Pl. 23, fig. 9).
nō ^ε							Lō		set snares. 108-2. (Pl. 25, fig. 5).
nūn		c				L	gal		throw me. 133-4. (Pl. 25, fig. 1).
nūn	y					L	t'ō	gūt	when he stung. 156-15. (Pl. 26, fig. 3).
nūn	s'			s		d	k'e ^ε		he got up. 98-5. (Pl. 23, fig. 10).
na			te	g		L	εa	L	he stood them up along. 88-13. (Pl. 26, fig. 8).
be na				s	i		yin	e	I stand. (Pl. 25, fig. 7).
de					c		εai ^ε	tēle	I will try again. 139-1. (Pl. 27, fig. 4).
dō			d		n		εqε	būñ	put on the fire. 127-12. (Pl. 23, fig. 15).
te'nō					d	l(l)	sūs	he	we did not see. 116-18. (Pl. 26, fig. 7).
	te'		ne	g	d		ge ^ε		we will put in water. 139-9. (Pl. 24, fig. 3).
	te'	kw				L	ɛiñ		he looked at it. 156-16. (Pl. 25, fig. 12).
	te'			n		n	lō ^ε	ūt	when he fooled him. 136-14. (Pl. 26, fig. 5).
ka						n	ya	hūt	when he came. (Pl. 26, fig. 6).
						l	εai	būñ	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.

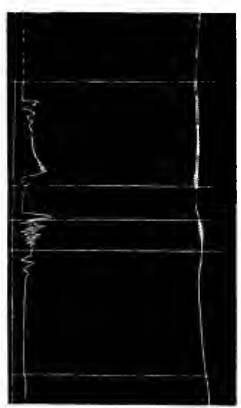
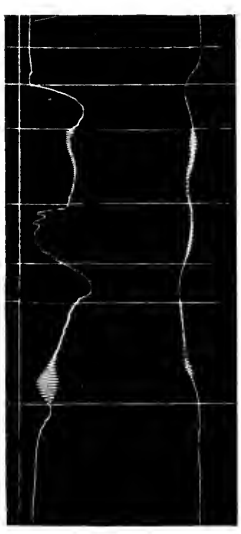
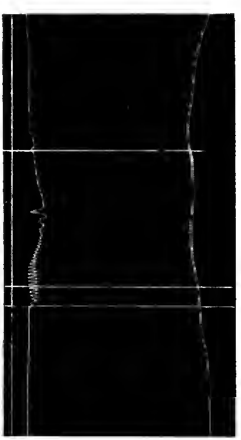
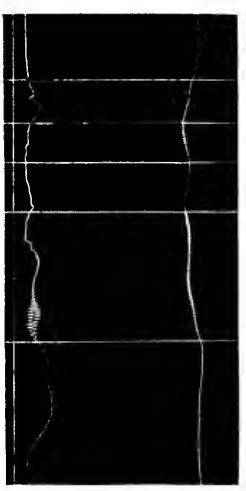
Transmitted March 1, 1911.

EXPLANATION OF PLATE 1

LATERAL SONANT AND SPIRANT

Upper line larynx, lower line breath.

- Fig. 1.— la^{ϵ} nes, raccoon. 112-5.
Fig. 2.— $l^{\epsilon}a$ ci^{ϵ} , buckeye. 94-6.
Fig. 3.— tc' $g\ddot{u}l$ $k\ddot{u}t$, he swallowed. 109-7.
Fig. 4.— \ddot{o} $l\ddot{a}\ddot{n}$, you get (imp.), 133-14.
Fig. 5.— $k\ddot{o}$ $w\ddot{u}n$ $s\ddot{u}l$, it was becoming hot. 172-14.
Fig. 6.— tc' $\ddot{u}s$ li^{ϵ} , he caught in a noose. 108-4.
Fig. 7.— ka $s\ddot{i}$ del^{ϵ} , we came up. 141-2.
Fig. 8.— na $d\ddot{i}l^{\epsilon}$, sugar-pine. 89-17.
Fig. 9.— $tc'n$ neL $y\ddot{i}l^{\epsilon}$, she eats up. 180-9.



EXPLANATION OF PLATE 2

LATERAL SPIRANT

Upper line larynx, lower line breath.

- Fig. 1.— Lōn te ge nes, “rodent ears long,” a mouse.
Fig. 2.— naL tcōs, she put a blanket. 180-7.
Fig. 3.— naL^ε gī, dog. 91-9.
Fig. 4.— tea kwōL gel^ε, very dark. 74-8.
Fig. 5.— te' qaL ya^ε nī, he was walking they say. 93-12.
Fig. 6.— L^ε gūc, rattlesnake. 91-17.
Fig. 7.— te' Lōi ũñ gī, she is making basket.
Fig. 8.— Lō' L tsō, grass blue. 76-6.

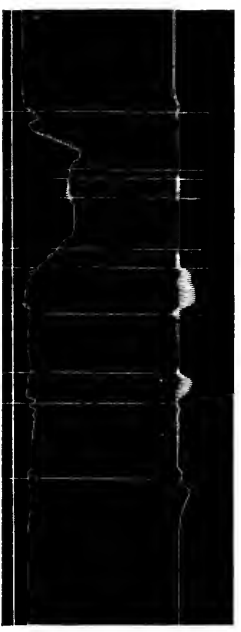


EXPLANATION OF PLATE 3

NASALS

Upper line from bulb in nostril, lower line breath.

- Fig. 1.— et cī nē kwān nāñ, it had turned black. 94-7.
Fig. 2.— kwôL ûn ya^ε nī, they told him they say. 125-2.
Fig. 3.— n dâl ^εiñ^ε, let us look. 168-1.
Fig. 4.— ô te'ûñ^ε, to him. 79-9.
Fig. 5.— nas liñ^ε, he became. 107-8.
Fig. 6.— nas dâl lin ne, we have got back. 95-12.
Fig. 7.— ôL k'añ, make a fire (plu. imp.). 103-7.

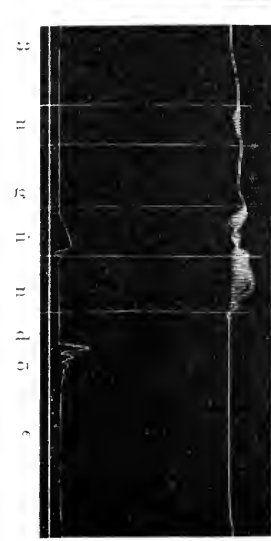
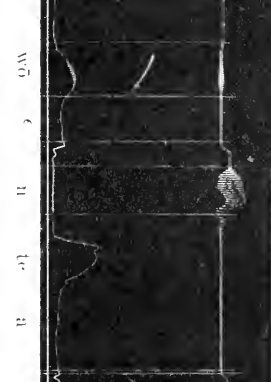
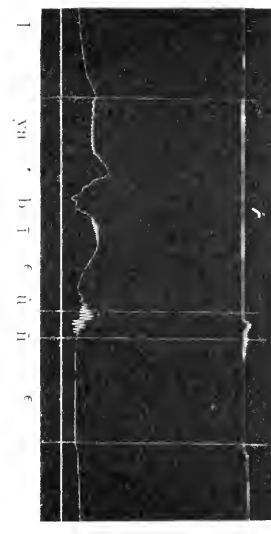
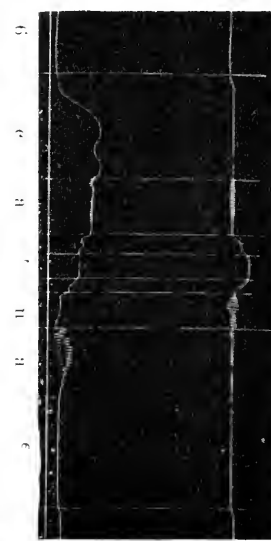
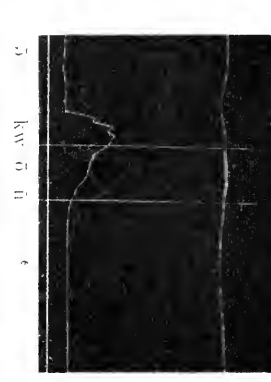
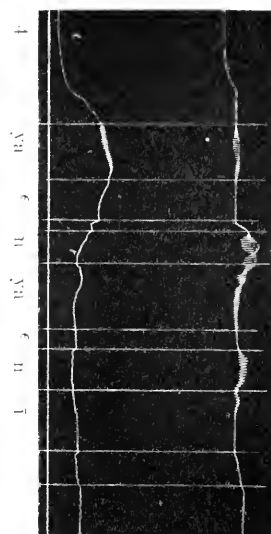
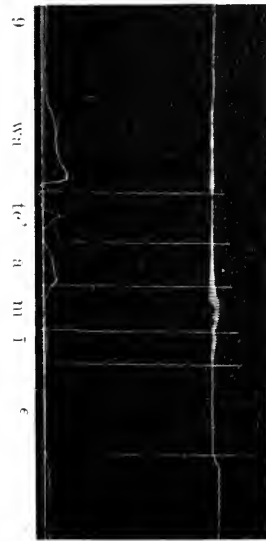
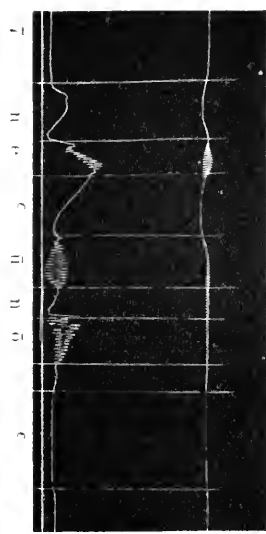


EXPLANATION OF PLATE 4

NASALS

Upper line from bulb in nostril, lower line breath.

- Fig. 1.—ya' bi^ε ûñ^ε, sky in. 81-2.
Fig. 2.—wō^εn tea', teeth large. 86-5.
Fig. 3.—n gûn dō^ε, it became none. 76-12.
Fig. 4.—ya^εn ya^ε nî, they said they say. 82-11.
Fig. 5.—kwōñ^ε, fire. 81-3.
Fig. 6.—ca'na^ε, creek. 79-3.
Fig. 7.—ne^ε û nō^ε, behind the hill. 164-16.
Fig. 8.—k'îñ^ε, juneberry. 133-3.
Fig. 9.—wa tc'a mî^ε, hole in. 156-12.

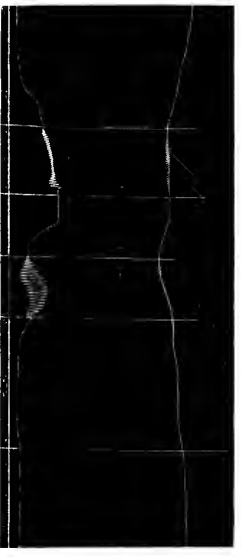
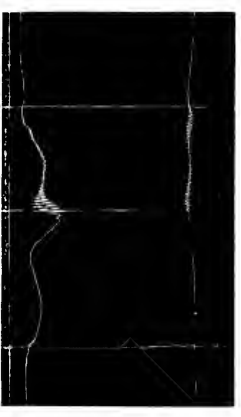


EXPLANATION OF PLATE 5

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.— *e tei^ε*, my heart. 101-5.
Fig. 5.— *bec ^εai^ε*, I will try it. 109-9.
Fig. 6.— *te'ō gac*, let him chew it.
Fig. 7.— *hakw dūñ^ε*, that time. 71-2.
Fig. 8.— *ne hin nō'si^ε*, our heads. 129-10.
Fig. 9.— *yō'*, 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.

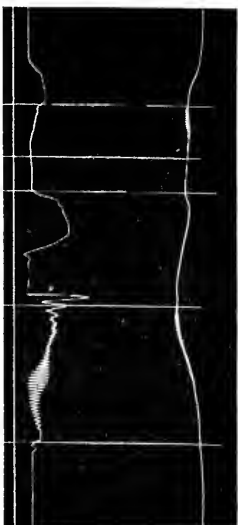
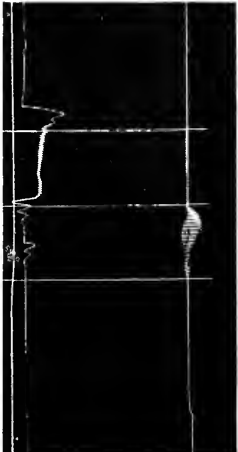
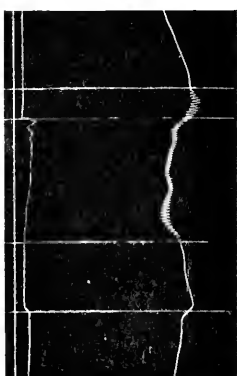
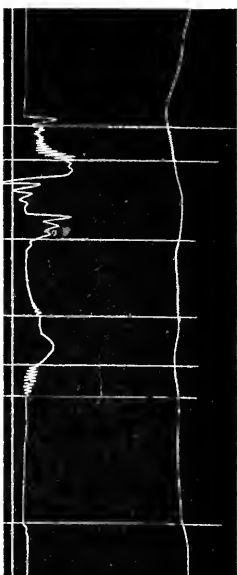
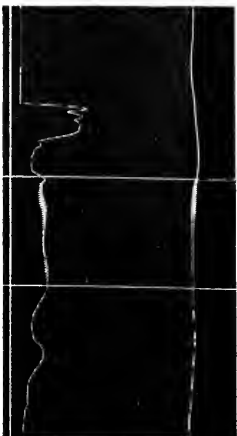
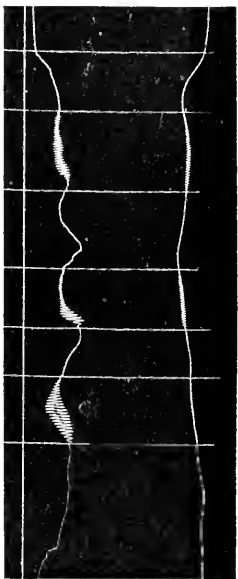
Fig. 4.— *da bes ya^ε*, he climbed up. 180-6.

Fig. 5.— *main*, weasel. 74-2.

Fig. 6.— *dē mûn^ε*, it is full. 129-13.

Fig. 7.— *bī^ε sta*, he was sitting in. 132-3.

Fig. 8.— *ta te'ûm mûL*, cook mush (imp. sing.). 163-14.

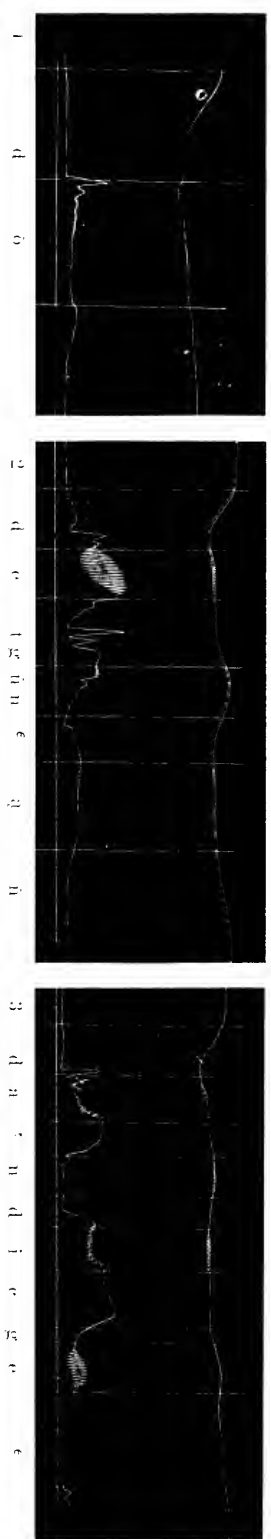
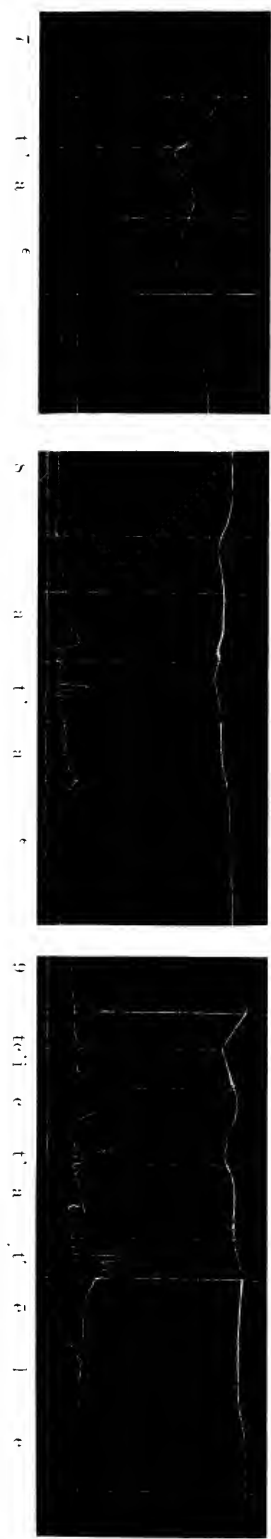


EXPLANATION OF PLATE 7

DENTAL STOPS

Upper line larynx, lower line breath.

- Fig. 1.— dō, not. 137-2.
Fig. 2.— de t gûn ʼaṅ, he put in the fire. 168-17.
Fig. 3.— daʼ n dic 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 teʼûn 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 tûk, it burst. 182-5.
Fig. 2.— te't te gûs teī^ε, it was about to dawn.
Fig. 3.— L tsō gûñ, fox. 73-3.
Fig. 4.— tûc ge^ε, I will carry. 135-4.
Fig. 5.— na wō' nie, you (plu.) played. 134-17.
Fig. 6.— ûc teī ce, I cried. 140-6.
Fig. 7.— qō, worm.
Fig. 8.— te'ûs qōt, he speared it. 128-13.
Fig. 9.— kw na tag ha^ε, without his knowledge.

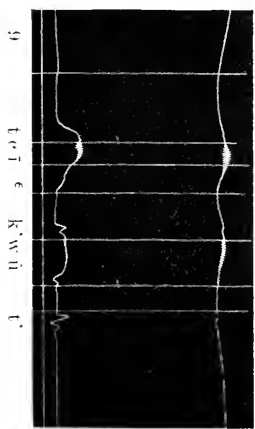
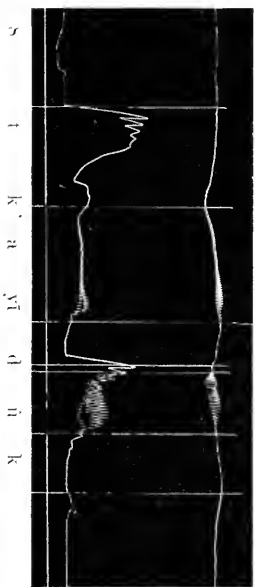
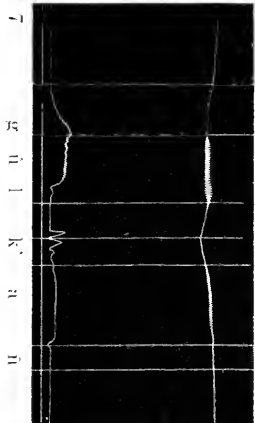
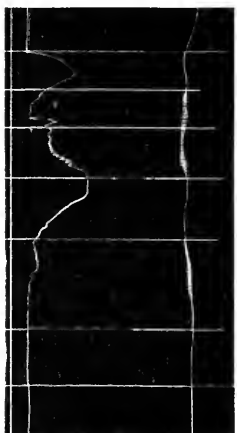
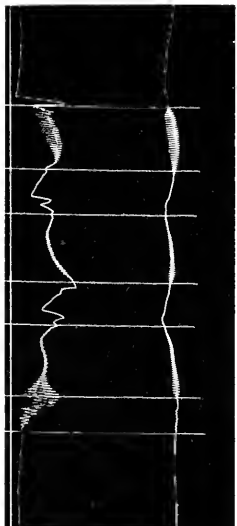


EXPLANATION OF PLATE 9

SURD PALATAL STOPS

Upper line larynx, lower line breath.

- Fig. 1.— *ka l^εa^ε*, it sprang up (of vegetation). 76-10.
Fig. 2.— *naḱ ka^ε*, two. 178-4.
Fig. 3.— *tc' gę kūs*, a boat went. 126-7.
Fig. 4.— *dō kwa t'ĩñ*, he never did that. 130-14.
Fig. 5.— *kw nīL iñ^ε*, he looked at him. 134-2.
Fig. 6.— *k't teL tcōt*, he stole. 118-11.
Fig. 7.— *gūl k'añ*, there was a fire. 162-13.
Fig. 8.— *t k'an yī dūk*, up the ridge. 99-3.
Fig. 9.— *ō teī k'wūt'*, on his tail. 162-14.



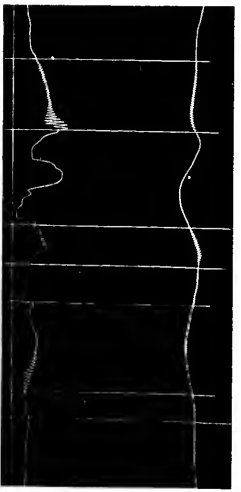
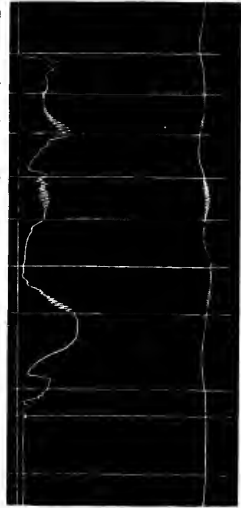
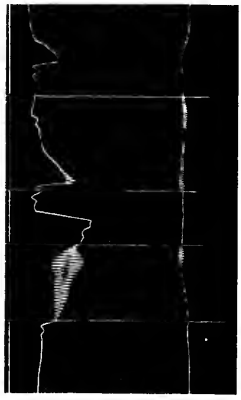
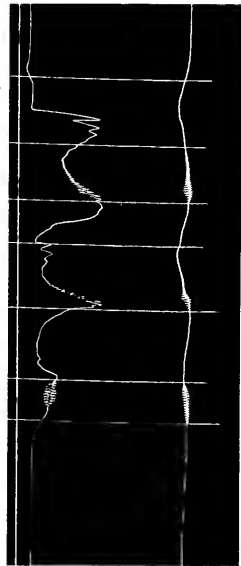
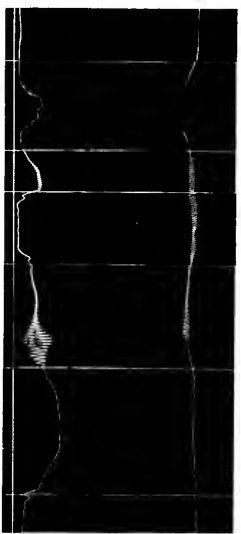
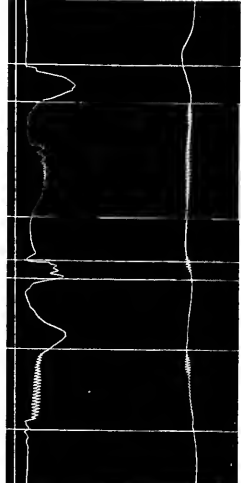
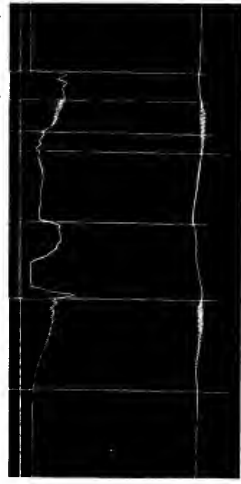


EXPLANATION OF PLATE 10

AFFRICATIVES

Upper line larynx, lower line breath.

- Fig. 1.— *tən nas djöl^ε*, it rolled out of the fire. 147-9.
Fig. 2.— *kw na^ε ûL teī*, make him live.
Fig. 3.— *te' gûn yie*, he broke off. 79-12.
Fig. 4.— *te' tōL k'as dja^ε*, let him drop. 129-8.
Fig. 5.— *na teûl*, orphan. 102-6.
Fig. 6.— *te'e na gût dac*, he came out again. 149-13.
Fig. 7.— *ta'djī nes tiñ*, where is he lying? 182-3.
Fig. 8.— *naL cōte*, grass-snake. 84-5.
Fig. 9.— *ye'te' gûn yai*, he went in. 97-11; 132-13.

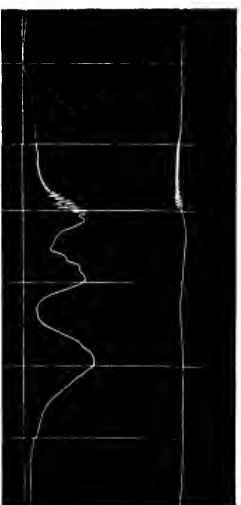


EXPLANATION OF PLATE 11

MISCELLANEOUS

Upper line larynx, lower line breath.

- Fig. 1.— wakwts, one side, away from.
Fig. 2.— k'ĩñ^ε, juneberry. 133-3.
Fig. 3.— wal k'ąts^ε, he put in. 105-14.
Fig. 4.— t'e^ε, raw. 91-5.
Fig. 5.— c băt', my stomach.
Fig. 6.— se qōt', a headdress. 176-17.
Fig. 7.— se tō nai, stone-fish (sword-fish?). 86-1.
Fig. 8.— te'ųs t'ōk', he flaked. 156-7.
Fig. 9.— tō ne^ε ũñ^ε, water behind. 126-6.



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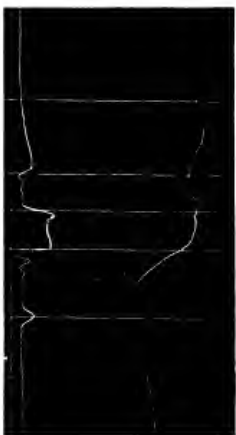
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3 w a l k i t s e



4 l e e r



5 e o u l e



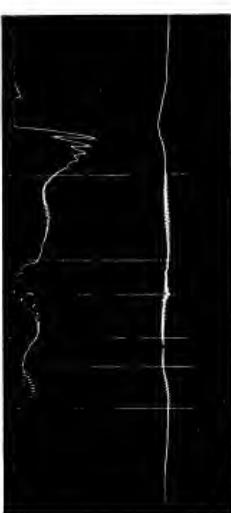
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7 t e e t u n a i



8 s t e u s t e o



9 t e o n e u n e

EXPLANATION OF PLATE 12

MONOSYLLABIC NOUNS

- Fig. 1.— a', clouds. 74-6.
Fig. 2.— ya', sky. 77-13.
Fig. 3.— ya^ε, 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.— Lût, 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^ε, hazel. 133-10.



1 a ʔ



2 y a ʔ



3 y a ə



4 y a s



5 w ō s



6 l ō kʔ



7 l ū t



8 s l ō



9 e ʔ



10 s l ū



11 e a ʔ



12 e o kʔ



13 b e l



14 b ū s



15 tʰ ō



16 z e s



17 kʰ ō s



18 kʰ ū c



19 kʰ wa ʔ



20 kʰ ū ñ

EXPLANATION OF PLATE 13

NOUNS WITH POSSESSIVE PREFIXES

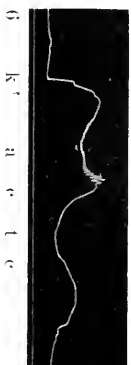
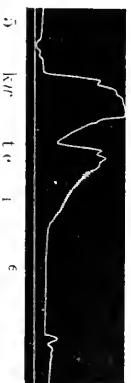
- Fig. 1.— a t'a, her blanket fold. 181-9.
Fig. 2.— ū t'a nī, her dress. 165-6.
Fig. 3.— ū tca^ε, her apron. 165-8.
Fig. 4.— ū sō^ε, his tongue. 110-3.
Fig. 5.— ū na^ε, his eye. 152-10.
Fig. 6.— ū ts'ō^ε, her milk.
Fig. 7.— ū sūts, its hide. 110-4.
Fig. 2.— ō dī ce^ε, its shoulder. 75-1.
Fig. 9.— ū de^ε, its horn. 74-10.
Fig. 10.— nat', your sister. 132-4.
Fig. 11.— c te ge, my grandfather. 153-10.
Fig. 12.— c ne^ε, my leg.
Fig. 13.— c qōt', my knee.
Fig. 14.— c djī^ε, my heart.
Fig. 15.— s tcō, my grandmother. 97-16.



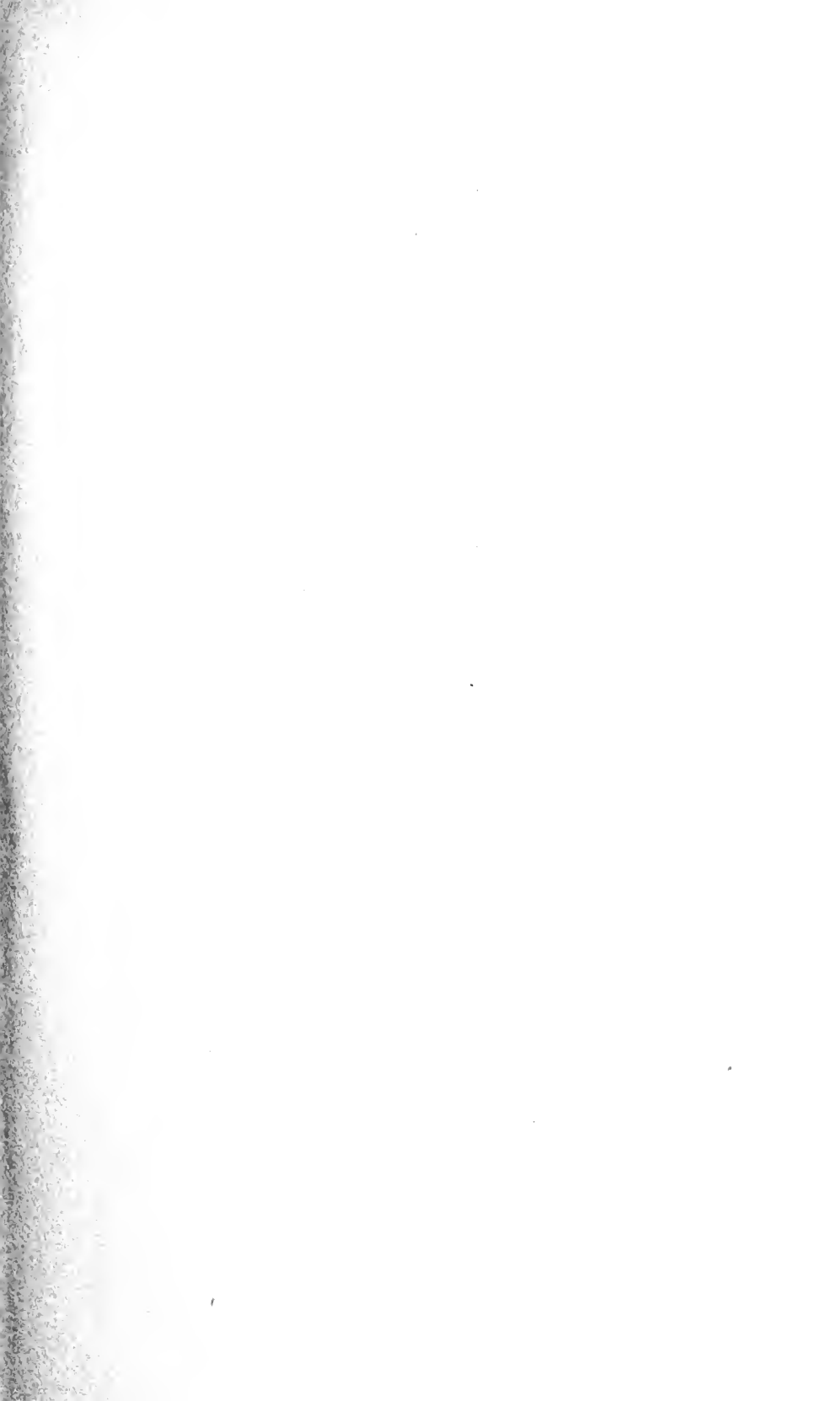
EXPLANATION OF PLATE 14

NOUNS WITH POSSESSIVE PREFIXES.

- Fig. 1.— kwûnt, cousin. 145-2.
Fig. 2.— cûn dī, my cousin. 145-3.
Fig. 3.— ba cī, his nephew. 145-3.
Fig. 4.— kwō^ε, his teeth. 181-8.
Fig. 5.— kw teī^ε, his tail.
Fig. 6.— kaete, knife. 110-10.
Fig. 7.— kw da^ε, his mouth. 123-2.
Fig. 8.— kw kwe^ε, his foot. 82-5.
Fig. 9.— skī, boy. 102-6.
Fig. 10.— skik, children. 132-8.
Fig. 11.— c teō djil, my kidney. 133-3.
Fig. 12.— kw sī^ε da^ε, his crown. 79-4.
Fig. 13.— s teaitc, my grandchild. 97-16.
Fig. 14.— gac teō, redwood, 86-8.
Fig. 15.— ges teō, elk. 71-5.
Fig. 16.— dûctc, quail. 72-5.







EXPLANATION OF PLATE 15

NOUNS WITH SUFFIXES

- Fig. 1.— *yictc*, wolf. 71-6.
Fig. 2.— *t kōcts*, chestnut. 89-8.
Fig. 3.— *t kac tcō*, pelican. 72-13.
Fig. 4.— *yī tcō*, dance house. 83-11.
Fig. 5.— *ts'ūñ tel*, turtle (bone broad). 90-14.
Fig. 6.— *tcūn ta'*, among trees. 171-9.
Fig. 7.— *ō de^ε Lgai*, its horn white. 161-16.
Fig. 8.— *ya^ε Lgai*, louse white.
Fig. 9.— *teil gaitc*, tail white. 138-12.
Fig. 10.— *ges L cūñ^ε*, salmon black. 86-2.
Fig. 11.— *na L cik*, eye shining. 181-9.
Fig. 12.— *cīc bī^ε*, red earth in (a mountain). 102-15.
Fig. 13.— *ye' bī^ε ūñ*, house in. 110-15.
Fig. 14.— *ye' bik*, house inside. 99-5.
Fig. 15.— *ya' bik*, sky inside. 101-15.
Fig. 16.— *bûts k'ai^ε*, seagull. 122-6.



1 y e t e



2 t k o n e t s



3 t k a n e t s o



4 y e t e o



5 t s



6 t e o n



7 t e d e l



8 y e n a



9 t e l



10 g e s l e



11 n a d e l



12 t e l



13 y e t e



14 y e t e

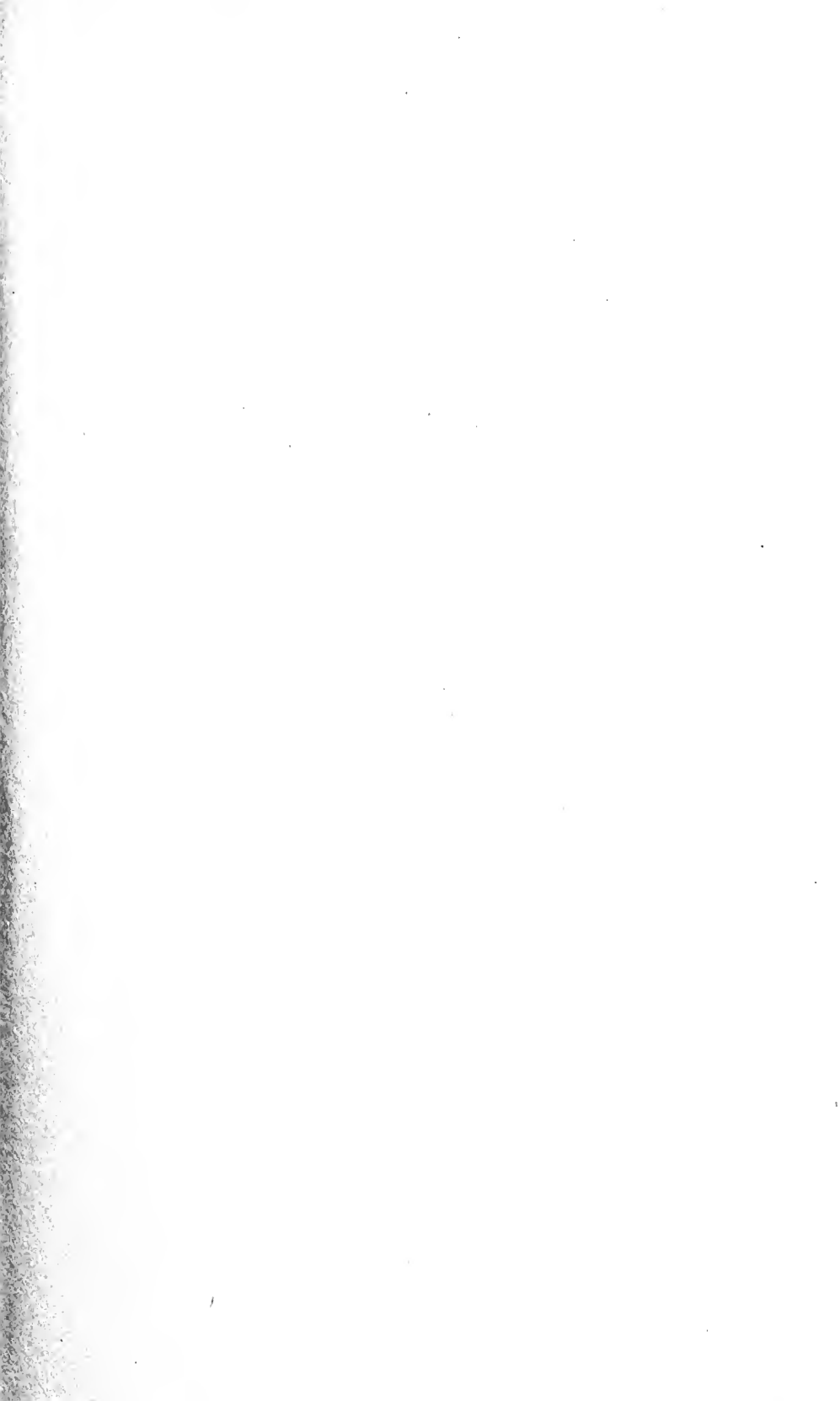


15 y e n a



16 t e d e l





EXPLANATION OF PLATE 16

NOUNS WITH SUFFIXES

- Fig. 1.— yī' tūk gât, house middle. 142-13.
Fig. 2.— gat teō^ε, barnacle.
Fig. 3.— se teits, stone rough (sand-stone). 77-9.
Fig. 4.— ne^ε L^εût, world middle. 75-3.
Fig. 5.— Lûc t teō, rotten log. 134-15.
Fig. 6.— ciñ hût, summer time. 155-1.
Fig. 7.— fa L^εût, 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 gī, 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.— nōñ k teûñ, pounded seeds. 94-4.



13 n a n e e

14 s e k a t t

15 n o n k t e n n



EXPLANATION OF PLATE 17

POLYSYLLABIC NOUNS

- Fig. 1.— *i da' kw*, Wailaki or Yuki. 170-9.
Fig. 2.— *na^ε cō k'a'*, robin. 72-9.
Fig. 3.— *seL te'ō i*, heron. 72-4.
Fig. 4.— *ea'na^ε*, stream 79-3.
Fig. 5.— *ban tō^ε*, ocean. 86-10.
Fig. 6.— *cac dūñ*, bear clover. 94-9.
Fig. 7.— *be liñ*, eel. 90-15.
Fig. 8.— *ban teō*, 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.



1 d a' k u



2 n a e e o k' a'



3 s e l t' o t



4 e a' n a e



5 b a n t' o e



6 e a e d u n



7 b e l i u



8 b a n t' o



9 b u s b u n t e



10 b e l g e t



11 b e l k' a t s



12 b u s t' l o



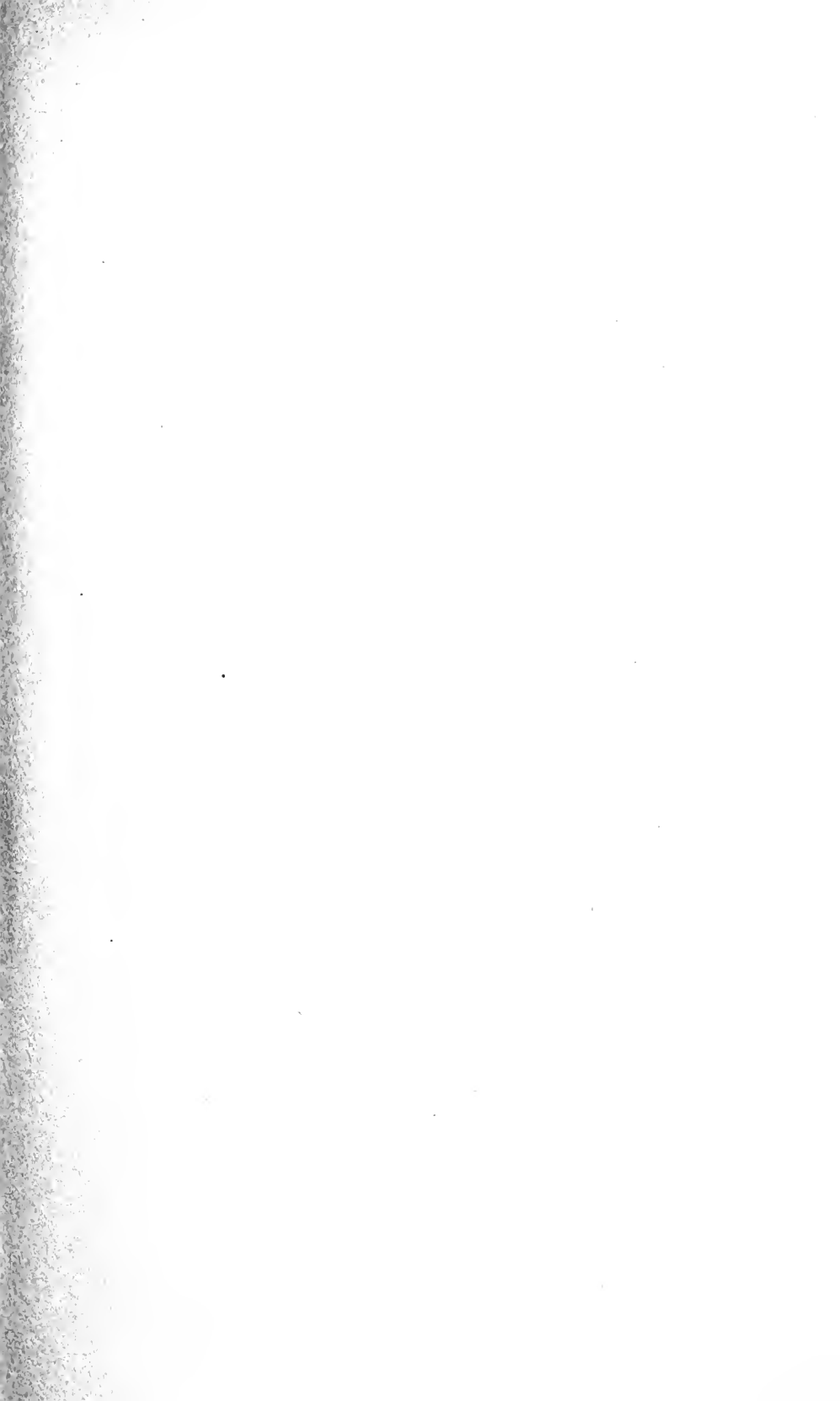
13 t' u n n t



14 d a t e a n t s



15 t' e k' t



EXPLANATION OF PLATE 18

POLYSYLLABIC NOUNS

- Fig. 1.— tele^ε, sack. 113-7.
Fig. 2.— te'a la, sun-flower. 138-6.
Fig. 3.— te'a həl, frog. 112-11.
Fig. 4.— teûn te' baġ, a bird. 72-11.
Fig. 5.— te' kak', net. 84-8.
Fig. 6.— teō baġ, poison. 163-7.
Fig. 7.— gō ya ne^ε, stars. 74-7.
Fig. 8.— kəç kits, old man. 108-2.
Fig. 9.— te' sī teûñ, coyote. 72-1.
Fig. 10.— kwī yint, pigeon. 73-12.
Fig. 11.— k'ûn ta ġits, jackrabbit. 73-6.
Fig. 12.— l tsō ġûñ, fox. 73-3.
Fig. 13.— s taite, cotton-tail rabbit. 155-12.
Fig. 14.— yīs kan, day. 100-12.
Fig. 15.— yīs t'ôt', fog. 126-2.



1 t' e] e ε



2 tɔ' a] a



3 tɔ' a h q]



4 tɔ' n tɔ' b a g



5 tɔ' k' a k'



6 tɔ' ɔ' b q g



7 ɣ ɔ' y a n e ε



8 k' a e k i t s



9 tɔ' s i tɔ' n n



10 kw tɔ' n t



11 k' n n t' a g t i t s



12 L t s ɔ' ɣ ɔ' n n



13 s t a i t e



14 y i s k a n n



15 y i s t' ɔ' t'



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^ε, mountain. 71-2.
Fig. 7.— te'n naL dûñ, adolescent girl. 109-9.
Fig. 8.— te' ga ts'e^ε, twine. 116-10.
Fig. 9.— teaL nī, mountain robin. 72-4.
Fig. 10.— te' ga', basket-pan. 113-10.
Fig. 11.— te' wōe tee^ε, foam. 85-3.
Fig. 12.— kwûn teL bī^ε, valley. 174-9.
Fig. 13.— teûn nûL teûnte, Lewis' woodpecker. 72-8.
Fig. 14.— be daiL teik teō, a woodpecker, "its head red large."



1 n a d e l t e



2 b ü l g ü l g ü s



3 b a n a t e ai



4 t b ä l



5 d ü l k' ü t s



6 ts' ü s n ö e



7 te' n a l d ü ü



8 t e' g a ts' e



9 t e a l n i



10 te' g a r



11 te' w ö e te' e e



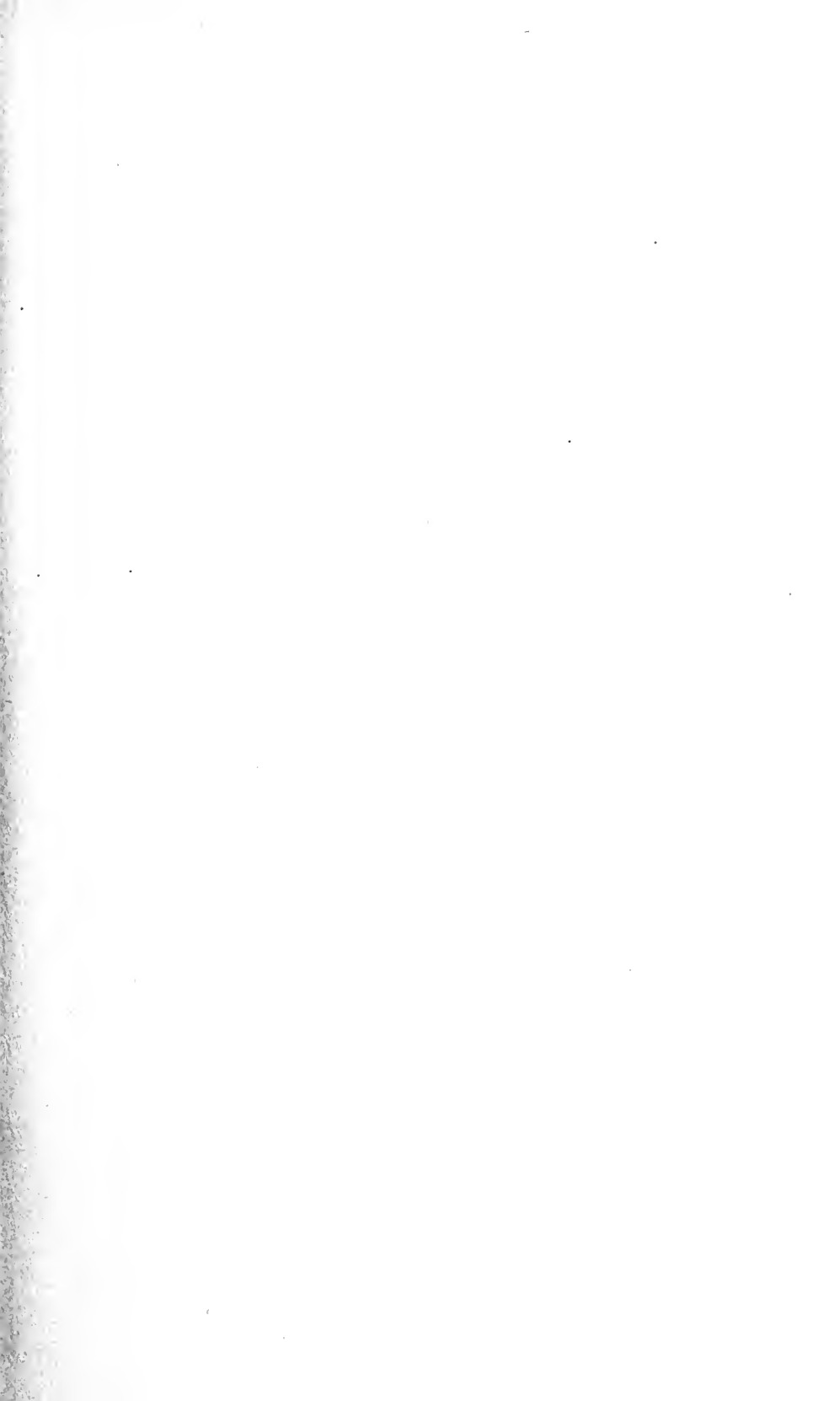
12 k' wu n t' e l d a



13 te ä n n ä l te ä n t e



14 b e d ai l te i k te ö



EXPLANATION OF PLATE 20

POLYSYLLABIC NOUNS

- Fig. 1.— *ō tei^ε k'wūt'*, its tail on. 162-14.
Fig. 2.— *Lōn L gai*, wood-rat, "rodent white." 73-9.
Fig. 3.— *yai in tañ^ε*, mole. 96-6.
Fig. 4.— *Lō' n^εai*, grass game. 146-11.
Fig. 5.— *ne^ε dūl bai*, a pine. 86-13.
Fig. 6.— *yō^ε teil 'iñ*, abalone. 124-17.
Fig. 7.— *ts'e k'e neets*, day eel, "navel long." 91-2.
Fig. 8.— *tō bût teō*, water-panther. 177-13.
Fig. 9.— *ne^ε te li^ε*, earthquake.
Fig. 10.— *tak'*, three. 101-4.
Fig. 11.— *kwe^ε 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^ε*, seven, "beyond two." 166-1.
Fig. 14.— *yō yī nûk'*, way south. 75-6.
Fig. 15.— *dī nûk'*, south. 75-6.





EXPLANATION OF PLATE 21

ADVERBS, PARTICLES, ETC.

- Fig. 1.— e he^ε, so it is. 173-14.
Fig. 2.— ō ye^ε, under it. 101-6.
Fig. 3.— ō lai^ε, its top, on it. 103-13.
Fig. 4.— ō dai^ε, outside. 98-4.
Fig. 5.— yō yī de^ε, way north. 77-1.
Fig. 6.— yī, right here.
Fig. 7.— yō ōñ, over there, further. 127-14.
Fig. 8.— yī bañ, other side. 133-4.
Fig. 9.— L ba^ε ūñ ha^ε, both sides. 75-7.
Fig. 10.— Le ne ha^ε, all. 83-4.
Fig. 11.— L ta^ε kī, different kinds. 83-1.
Fig. 12.— nūn kwī ye, underground. 75-8.
Fig. 13.— nīkts, slowly. 140-16.
Fig. 14.— he ū^ε, yes. 82-2.
Fig. 15.— ha yī, those people. 171-19.



1 e h e ε



2 ō y e ʻ



3 ō l ai ε



4 ō d ai ε



5 yō yʻ d e ε



6 y ʻ i



7 y ō ō ō ō ε



8 yʻ b a ō



9 l b a ε ō ō h a ε



10 l e n e h a ε



11 l t a ʻ k i



12 n ō n kʻ wʻ y e



13 n t k ts



14 h eŋ ε



15 h a y i





EXPLANATION OF PLATE 22

PRONOUNS, ADVERBS, ETC.

- Fig. 1.— ca te'õn gelan, he got for me.
Fig. 2.— cī ye^ε ye', my house. 141-6.
Fig. 3.— cõñk kwa^ε lag, he did well. 104-6; 154-5.
Fig. 4.— ta ðin ðjī, what for?
Fig. 5.— ðī, this. 74-9.
Fig. 6.— ða sīts, soon. 136-5.
Fig. 7.— ta' ðjī, where? 182-3.
Fig. 8.— ðõ, not. 79-4.
Fig. 9.— tõ õ teiñ a, water in front of. 77-7.
Fig. 10.— kac bī^ε, tomorrow. 104-9.
Fig. 11.— k'ûn ðīt', some days ago. 137-5.
Fig. 12.— kûn ðûntc, close by. 79-6.
Fig. 13.— k'ûn ðũñ, yesterday. 128-7.
Fig. 14.— k'ât ðe^ε, soon. 96-4.
Fig. 15.— kwûn Lạñ, enough. 77-8.



1 c a tɔ' ŋŋe l a n



2 e t y e e y e'



3 e ŋŋk kwa e l a g



4 t' a d i n d j i



5 d i



6 d a s i t s



7 t' a' d j i



8 d ŋ



9 t' ŋ ŋ tɔ' i ŋ



10 k' a e b t e



11 k' ŋ n d t i'



12 k' ŋ n d ŋ n t e



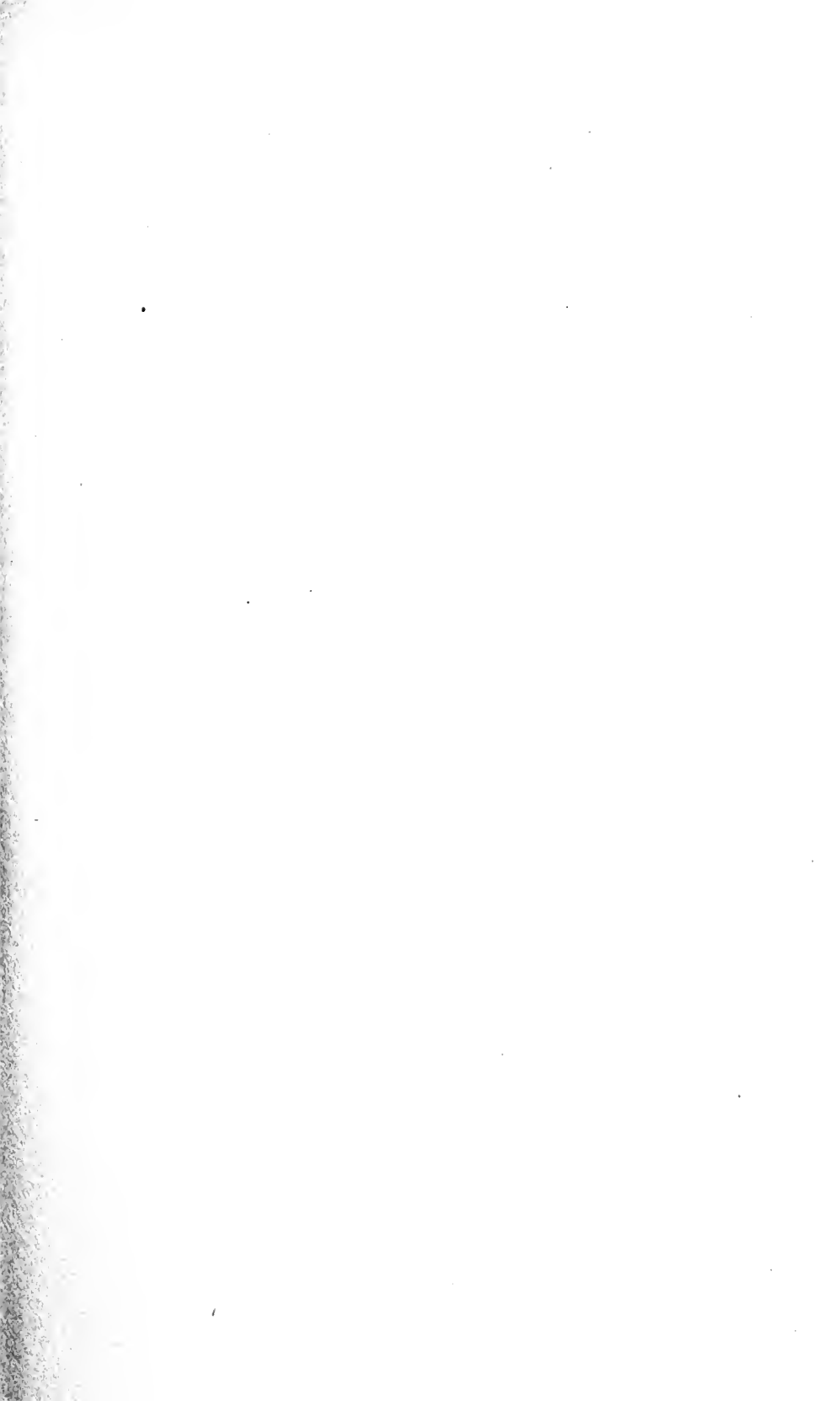
13 k' ŋ n d ŋ n



14 k' a t d e e



15 k w ŋ n t ŋ ŋ



EXPLANATION OF PLATE 23

PREFIXES OF VERBS

- Fig. 1.— *ya^ε gûL gal*, he threw up. 142-3.
Fig. 2.— *ye' te' gûn yai*, he went in. 132-13.
Fig. 3.— *wa^ε ûñ kạñ*, she gave him. 129-4.
Fig. 4.— *wa nûn tei bûñ*, it will blow through. 80-14.
Fig. 5.— *Le ges^ε a^ε*, it was encircling. 82-15.
Fig. 6.— *na nûn dac*, come down.
Fig. 7.— *na ea^ε*, I go about. 133-6.
Fig. 8.— *nai^ε ai bûñ*, it will be across.
Fig. 9.— *na des bil^ε*, he spilled. 123-2.
Fig. 10.— *nûn s'ûs dûk k'e^ε*, he got up. 98-5.
Fig. 11.— *nô ga^ε a^ε*, he put along. 86-11.
Fig. 12.— *be nûL ke^ε e*, I have finished. 82-15.
Fig. 13.— *bê dûL*, let us climb.
Fig. 14.— *da' bes ya^ε*, he climbed up. 180-6.
Fig. 15.— *de dûñ^ε a^ε*, you put on the fire. 131-9.



1 y a e g u l e a l



2 y e t' g u n y a i



3 w a e u n k' q u n



4 w a n n n t e' t b u n



5 s l e g e s e n



6 o n a n n n d a e



7 n a e a e



8 s n a i e a i b u n



9 g n a d e s b t l e



10 n n n x' u s d u k k' e



11 n o w a' e q e



12 b e n t l k' e



13 b e d u l



14 d a' b e s y a e



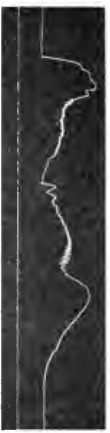
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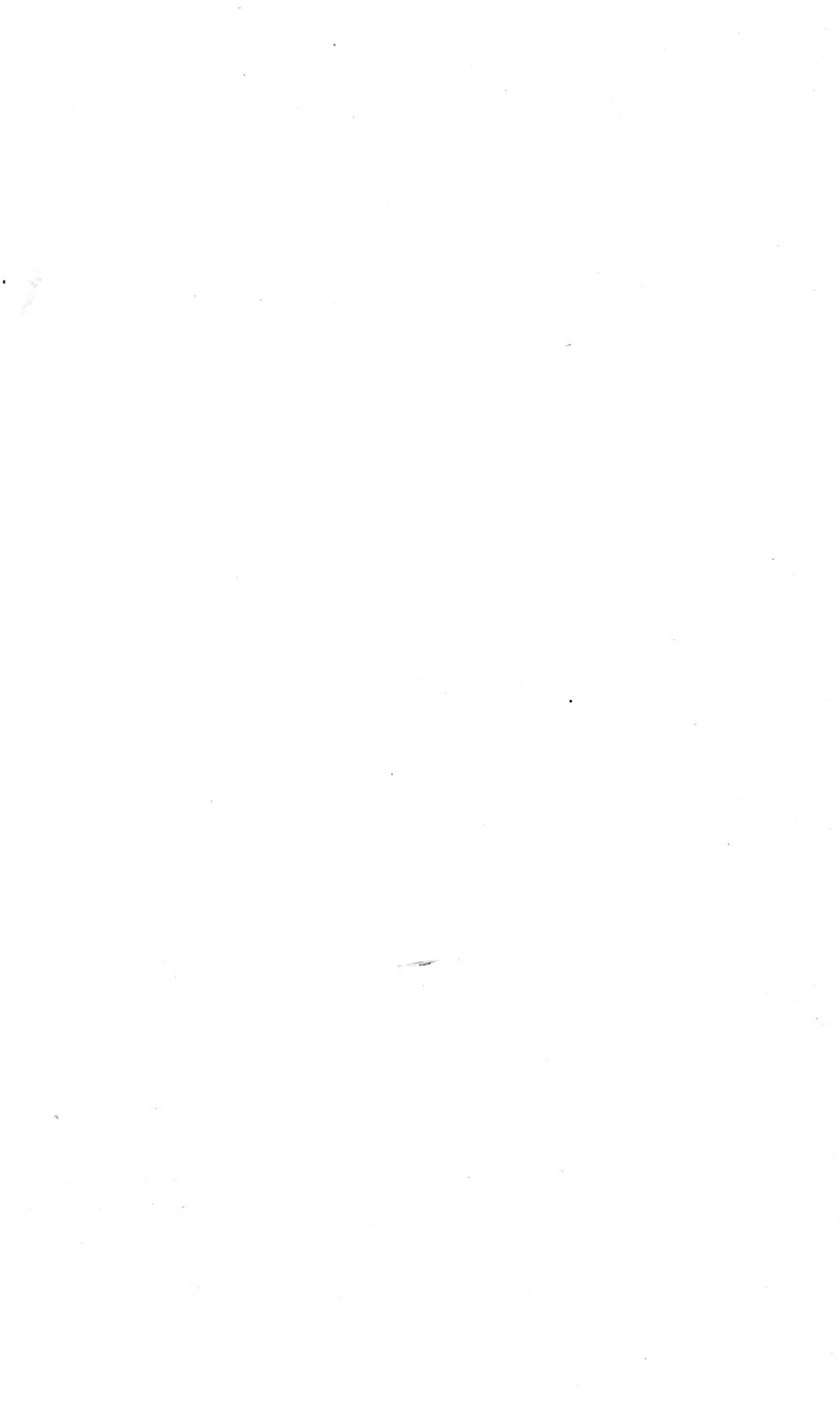


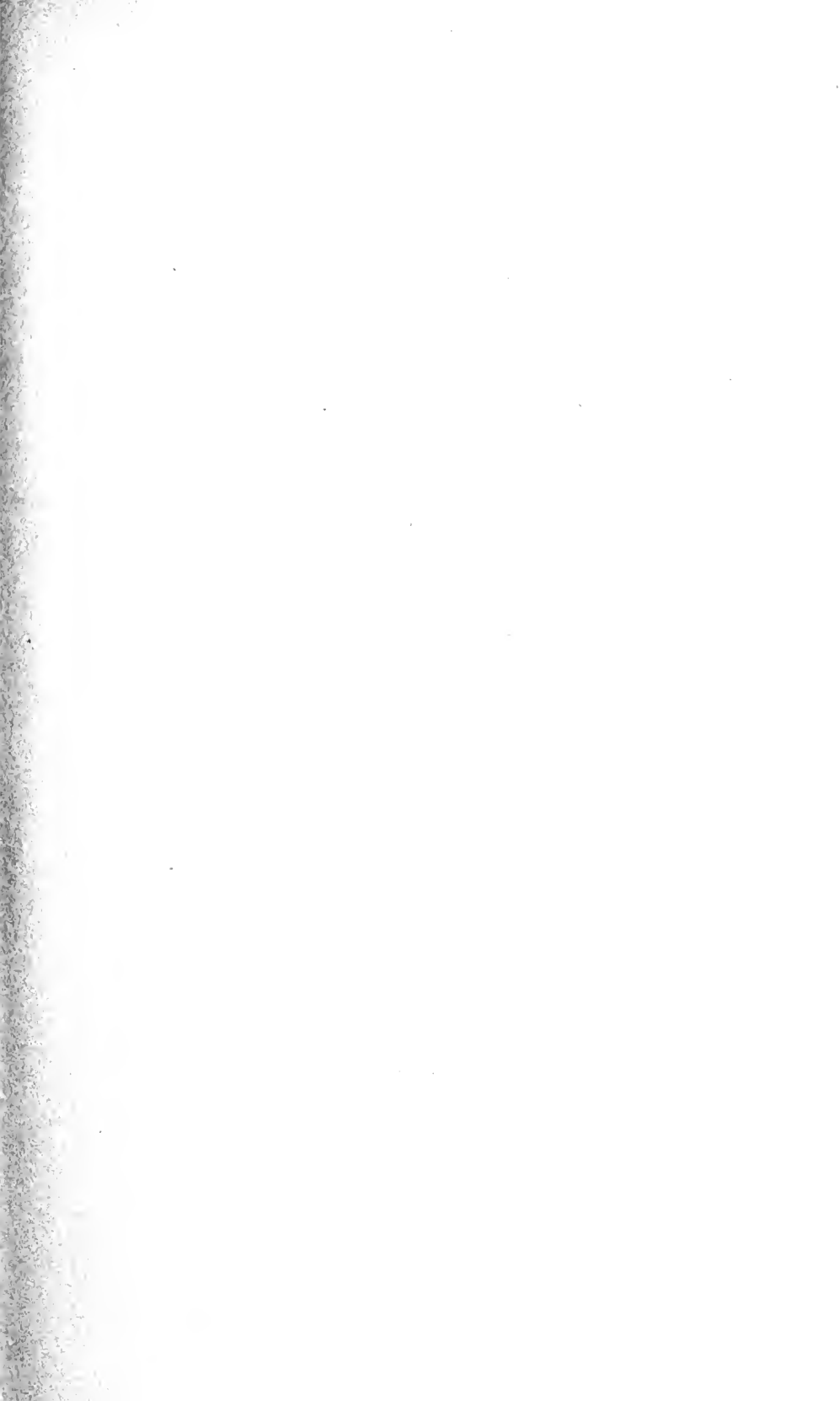
EXPLANATION OF PLATE 24

PREFIXES OF VERBS

- Fig. 1.— ta tc'ō bûL, make soup (plu.). 123-13.
Fig. 2.— ta gût t'ats, they butchered. 175-4.
Fig. 3.— te' nō dūg ge^ε, we will put in water. 139-9.
Fig. 4.— tc'e nûn yac, come out.
Fig. 5.— dje^ε gûL tcel, she split open. 129-3.
Fig. 6.— kwa nō' te, look for it. 164-11.
Fig. 7.— ka nac, it came up. 81-2.
Fig. 8.— kwûn ye' gûl lat, it sank. 174-12.
Fig. 9.— kwût tc' gûn yai, he went down. 116-5.
Fig. 10.— ne sōL yāñ, you (plu.) ate up. 136-16.
Fig. 11.— ôc lañ^ε, I will get. 137-2.
Fig. 12.— na dic tea, let me eat a meal.
Fig. 13.— dō kō gīs iñ, one couldn't see. 81-1.
Fig. 14.— tc't teL bañ, he walked lame. 133-6.
Fig. 15.— dī kwa^εL siñ, he did this way. 79-12.







EXPLANATION OF PLATE 25

VERBAL PREFIXES, SUBJECTIVES AND OBJECTIVES

- Fig. 1.— $n\bar{o}^{\epsilon}$ $c\bar{u}L$ gal, throw me. 133-4.
Fig. 2.— ne $\epsilon\bar{o}$ $d\bar{u}\bar{n}$, you will die. 177-4.
Fig. 3.— ya^{ϵ} $te'kw$ neL $i\bar{n}^{\epsilon}$, they saw him.
Fig. 4.— $te'e$ $n\bar{o}'$ $n\bar{u}\bar{n}$ a ne, he killed us. 117-6.
Fig. 5.— na $te'\bar{o}'$ L \bar{o} , set snares (plu. imp.). 108-2.
Fig. 6.— $te'n\bar{u}\bar{n}$ yai, he came there. 142-14.
Fig. 7.— $s\bar{i}$ y \bar{i} ne, I stand.
Fig. 8.— $g\bar{u}\bar{n}$ nes, it became long. 87-1.
Fig. 9.— $g\bar{u}t$ $te'a\bar{n}^{\epsilon}$, he shot. 110-13.
Fig. 10.— $g\bar{u}L$ teat, he shouted. 165-9.
Fig. 11.— ka^{ϵ} $d\bar{u}t$ tea ϵ , well, let us bury. 149-7.
Fig. 12.— $te'n$ ne $g\bar{u}L$ $\epsilon i\bar{n}$, he looked at it. 156-16.
Fig. 13.— $\bar{o}'t$ $g\bar{u}c$, look at them. 164-9.
Fig. 14.— $te'k\bar{u}\bar{n}$ nec, he talked. 160-1.



1 n o e e n l g a l



2 n e e j o d n n



3 y a e t e k o n e l t n e



4 t e e n o n n n a n e



5 n a t e o l o



6 t e n n n y a i



7 s t y t n e



8 s n n n e s



9 s n t t e a n e



10 s n l t e a t



11 k a e d n t e a e



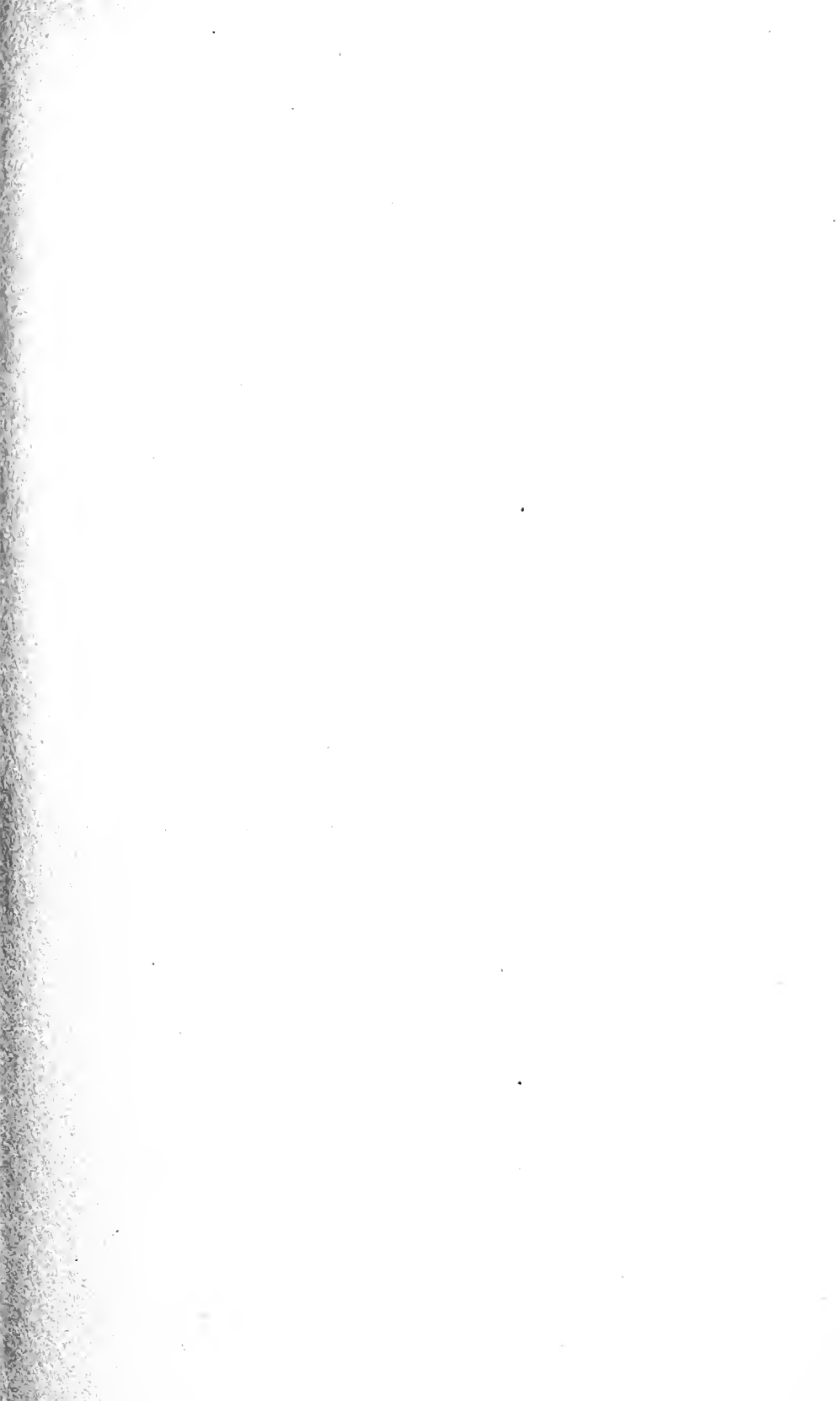
12 t e n n e s n l e t n



13 o t t s n e



14 t e k n n n e e



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'ō gūt*, when he stung. 156-15.
Fig. 4.— *te' gūñ al^ε ya^ε nī*, he chewed it they say. 109-7.
Fig. 5.— *te' kwL lô^ε ût*, when he fooled them. 136-14.
Fig. 6.— *te' nûn ya hût*, when he came.
Fig. 7.— *dō dûl sūs he*, we did not see. 116-18.
Fig. 8.— *na te gūL^ε aL*, he stood them up along. 88-13.
Fig. 9.— *kəl^ε ai būñ*, it will grow up. 84-11.
Fig. 10.— *L k'a' bûn dja^ε*, let it be fat. 85-14.



EXPLANATION OF PLATE 27

SUFFIXES OF VERBS

- Fig. 1.— niñ yan de^ε, when it cleared off. 167-17.
Fig. 2.— kwûn teL tē lit, it was becoming flat. 107-3.
Fig. 3.— nûc iñ^ε tē le, I will look. 165-4.
Fig. 4.— be nac ^εai^ε tē le, I will try it again. 139-1.
Fig. 5.— kûc na^ε dja^ε, I want to live. 171-7.
Fig. 6.— te'ôL tēi dja^ε, let him make. 140-2.
Fig. 7.— ka gûL ^εal 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 nāñ, they were ripe. 94-4.
Fig. 10.— n he ôL ka kwic, we will spend the night probably. 105-3.



1 n i ñ y a n d e ε



3 n ñ e i ñ t' r̄ l e



5 k ñ e n a ε dʒ a ε



7 k' a ɣ ñ l ε ɣ l k w a ñ ñ



9 n e s y a n r̄ k w a n ɣ ñ



2 k w a ñ t' e l t' r̄ l i t



4 h e n a e ñ i ε t' r̄ l e



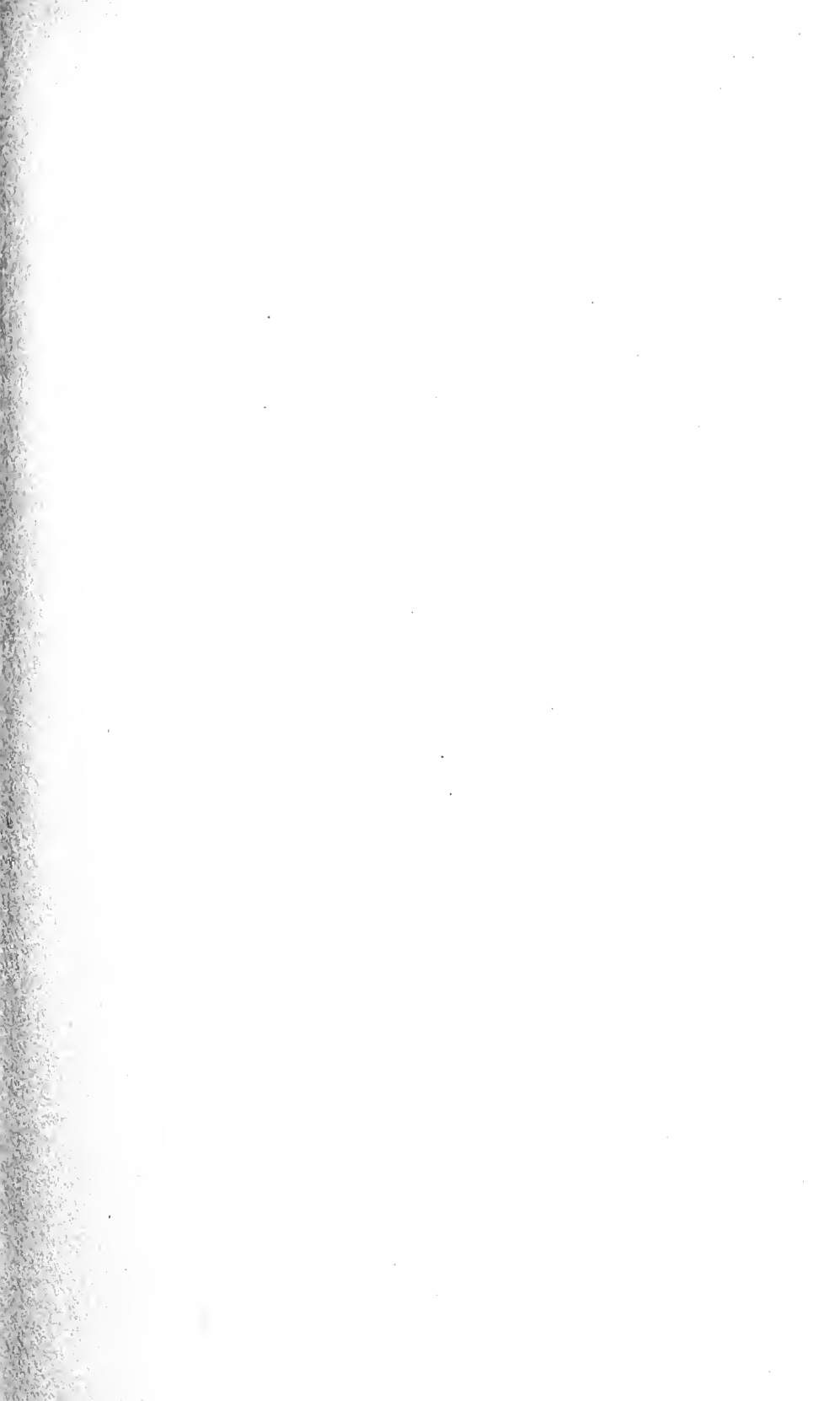
6 t e' o l t e i dʒ a ε



8 t e' t' e l b ñ l k w a ñ ñ



10 n h e o l k' a k w i e



EXPLANATION OF PLATE 28

VERBAL STEMS

- Fig. 1.— nən dūl 'a^ε, let us make a dam. 163-11.
Fig. 2.— na t gūL 'a^ε, he stood it up. 76-6.
Fig. 3.— na nūñ 'ai, a fish-weir. 133-9.
Fig. 4.— dī 'ûn es 'a^ε, up there in a row. 109-10.
Fig. 5.— be yaL 'ai^ε, they tried it. 85-2.
Fig. 6.— ye' s^εa ne, house stands. 141-5.
Fig. 7.— nō' 'ae nō hiñ, put, you (plu.). 110-11.
Fig. 8.— nō' 'il bûñ, you must stay (plu.). 105-2.
Fig. 9.— te' nūñ 'il^ε, they sat down. 170-8.
Fig. 10.— nūc 'i ne, I saw it. 137-1.
Fig. 11.— n dūl 'iñ^ε, let us look. 168-1.
Fig. 12.— kwəc 'i ne, I always do that.
Fig. 13.— nō hiñ kwa' Liñ^ε, you (plu.) do that. 113-4.



1 n ñ n d ñ l ε a ε



2 n a t' s ñ l ε a ε



3 na n ñ ñ ε a i



4 d t ε ñ ñ e s ε a ε



5 b e y a l ε a i ε



6 y e t' s ε a n n e



7 n ó' ε a e n ó h i ñ



8 n ó' ε t i l b ñ ñ



9 t' e' n ñ ñ ε t i l ε



10 n ñ e ε t i n e



11 n d ñ l ε t ñ ε



12 k w a e ε t n e



13 n ó h t ñ k w a t' l i ñ ε





EXPLANATION OF PLATE 29

VERBAL STEMS

- Fig. 1.— nas ^éûts, he ran about. 134-3.
Fig. 2.— tc' tes yai, he went. 116-9.
Fig. 3.— k' gę ^éûts, he was shooting along. 144-10.
Fig. 4.— Lân 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.— tc' nūn ya ya ^é nī, he came there they say. 101-10.
Fig. 9.— tc' gūn yan ^é, he ate of it. 129-5.
Fig. 10.— tc'ō' yañ, you (plu.) eat. 148-6.
Fig. 11.— tc' gūn yal, walk (sing. imp.).
Fig. 12.— nō nūn yīñ, they were living. 160-12.
Fig. 13.— tc'ūn yañ, you eat (sing. imp.). 125-7.
Fig. 14.— tc't deñ ñel ^é, he stopped crying. 148-4.



1 n a s e n t s



2 t e n t e s y a i



3 k e n t e n t s



4 l e n t e s y a i



5 r a n k e n t s y a i



6 n a r y e



7 t e r y a i



8 s e n e n t s y a i



9 t e n y a n e



10 t e n y a n e



11 t e n y a n e



12 n o n y a n e



13 t e n y a n e



14 t e n t e n t e





EXPLANATION OF PLATE 30

VERBAL STEMS

- Fig. 1.— $d\bar{o}$ s dji^e kw ya $n\bar{e}$, I do not like him. 136-13.
Fig. 2.— $d\bar{o}$ ha^e ka $n\bar{o}n$ t $y\bar{a}\bar{n}$, do not be ashamed. 141-8.
Fig. 3.— $b\bar{u}L$ te' $g\bar{u}t$ $y\bar{i}\bar{n}$, he doctored.
Fig. 4.— na^e $g\bar{i}s$ $y\bar{i}e$, he rested. 161-4.
Fig. 5.— na $d\bar{u}l$ $y\bar{i}e$, let us rest. 140-18.
Fig. 6.— $w\bar{u}\bar{n}$ $g\bar{u}t$ t $y\bar{a}e$, some become old. 107-11.
Fig. 7.— $kw\bar{o}L$ $y\bar{i}e$, he whistled.
Fig. 8.— $\bar{u}e$ $y\bar{i}t$, I will make a house. 168-6.
Fig. 9.— $s'\bar{u}s$ $y\bar{i}^e$, he made a house. 168-7.
Fig. 10.— $g\bar{u}l$ $y\bar{i}^e$ ya^e $n\bar{i}$, he built a house they say. 83-11.
Fig. 11.— $te'n$ $n\bar{o}L$ $y\bar{o}L$, let it blow. 80-13.
Fig. 12.— $te\bar{u}m$ meL $y\bar{i}ts$, a stick he tied. 169-5.
Fig. 13.— $kw\bar{u}n$ tin $y\bar{o}t$, they ran after him.



1 d o s d j i e k w' ya n e'



2 d o ha e k' a n o' n t y a' n'



3 b u' l te' g u' t t y i u' n'



4 f na e g' i s y' i te'



5 o' n a d u' l y' i e'



6 o' w u' u' g u' t t y a' n e'



7 k w o' l y' i e'



8 u' e y' i t'



9 s' u' s y' i k'



10 g u' l y' i e' y a' e' n' i'



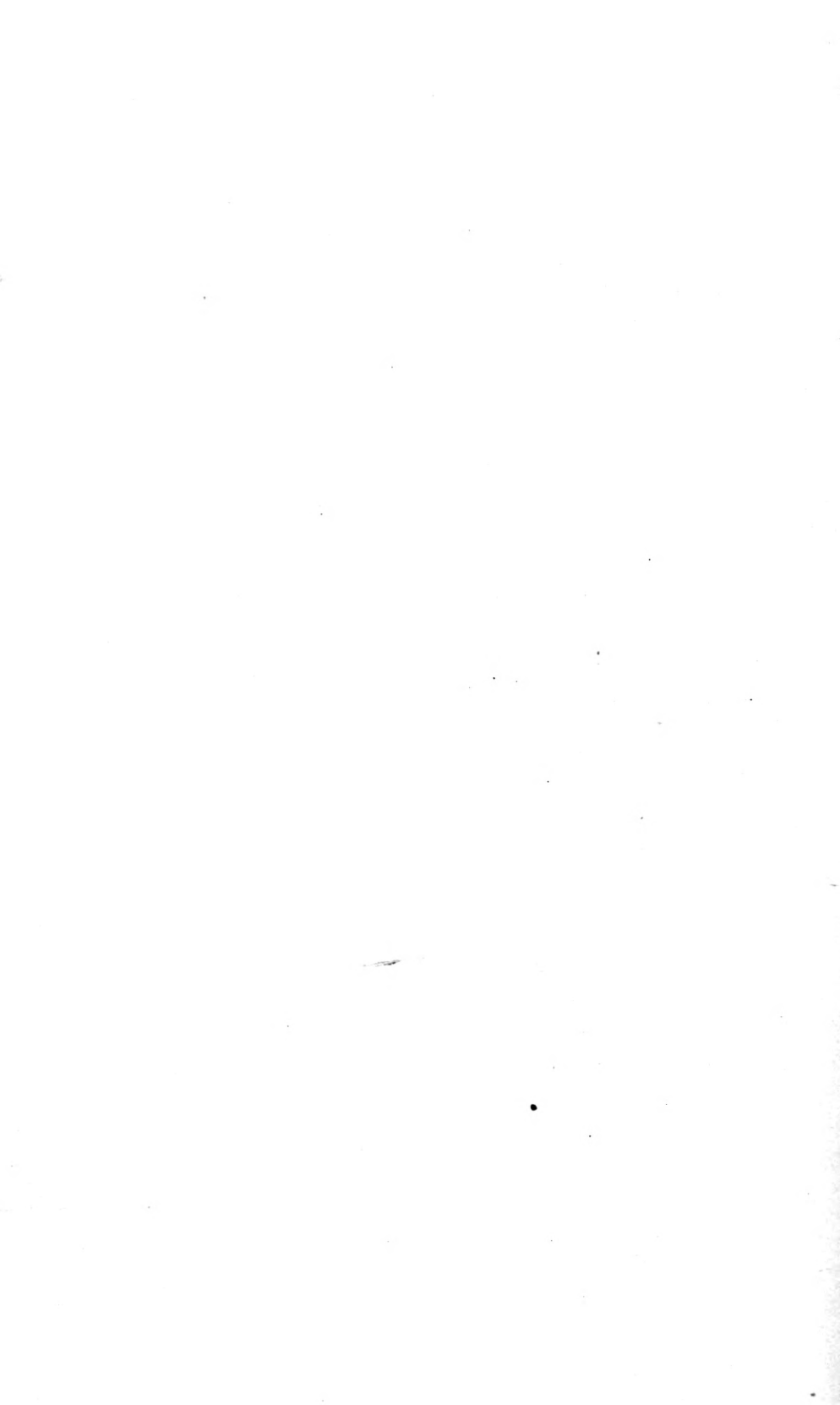
11 te' n u' o' l y' o' l'



12 te' n m m e' l y' i t' s'



13 k' w a' n t' i n y' o' t'



EXPLANATION OF PLATE 31

VERBAL STEMS

- Fig. 1.— ka na gūl laç, she digs out.
- Fig. 2.— (ū) na^ε te'e na lai, her eye she took out. 152-9.
- Fig. 3.— kwai^ε la^ε ya^ε nī, he did it they say.
- Fig. 4.— dī kwa^ε laç, he did this way. 154-5.
- Fig. 5.— cō^ε gī la ge, I fixed it good. 76-12.
- Fig. 6.— bel get k'wūn nō' laç, spear point put it on (pl. imp.). 133-8.
- Fig. 7.— k'wūn nūl lūc, put it on (sing. imp.).
- Fig. 8.— n tō laç, let him sleep.
- Fig. 9.— cō^ε òc le', I will fix good. 77-3.
- Fig. 10.— n tes laç ya^ε nī, he went to sleep they say. 83-4.
- Fig. 11.— nō hin n tō' laç, you (plu.) go to sleep. 110-16.



1 k' a n n a s t i l l i q' e



2 n a e t e' e n a l a i



3 k w a i e l a ' y a e n t



4 d i k w a e l a g



5 e o e s t i l a s e



6 h e l s e t k' w a n o' t l i q' e



7 k' w a n a l l i e



8 n t' o l i q' t



9 e o e o e l e e

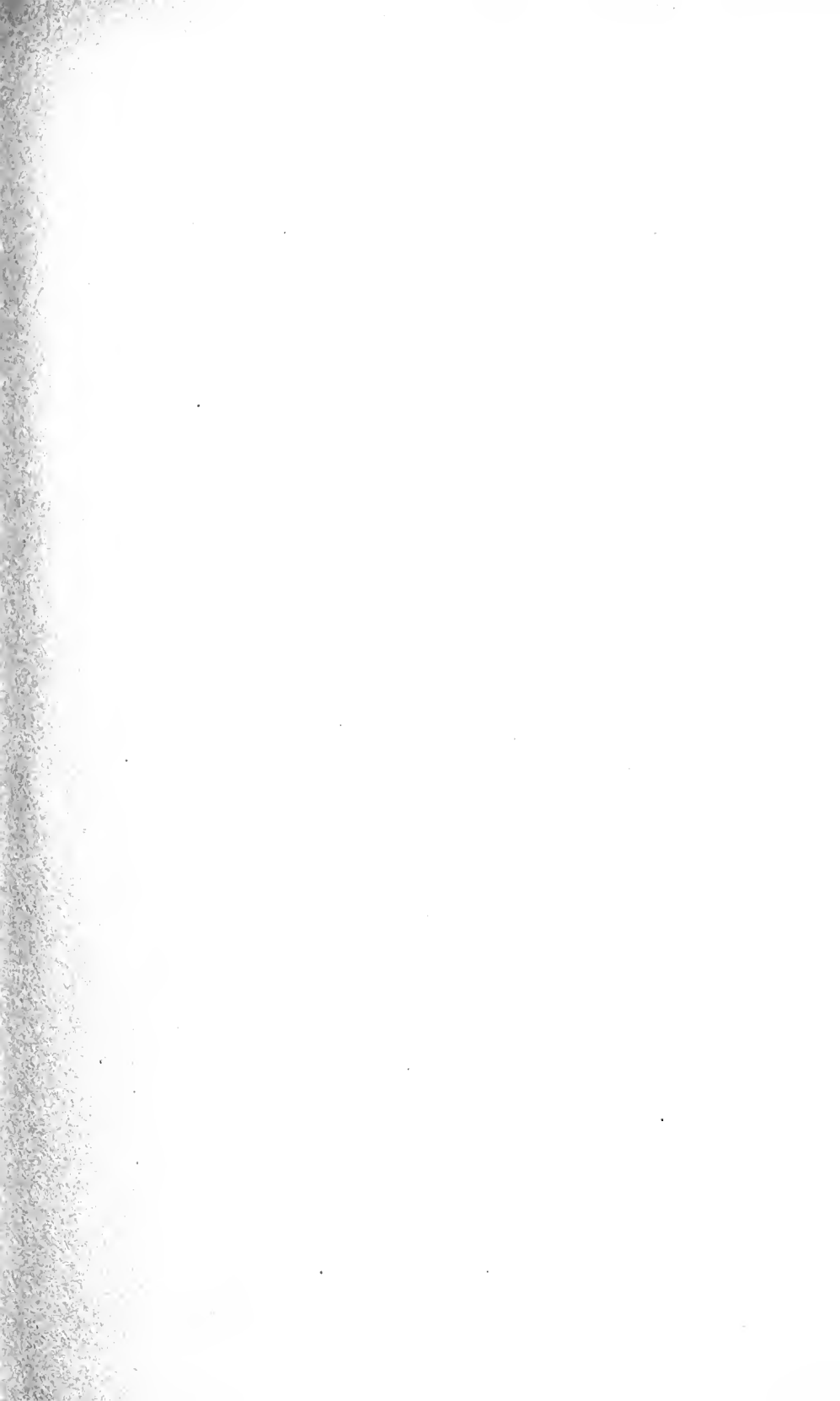


10 n t' e s l a l y a e n t



11 n o h i n n t' o' l i q' t





EXPLANATION OF PLATE 32

VERBAL STEMS

- Fig. 1.— *te'el le^ε*, he sang. 149-11.
Fig. 2.— *na gûl le^g*, fish were swimming down. 128-12.
Fig. 3.— *s'ûs liñ^ε*, he became. 84-11.
Fig. 4.— *te'e gûl le^ε*, he commenced singing. 105-11.
Fig. 5.— *ka kô sî le*, I am sick.
Fig. 6.— *nas li^ε*, he tied up. 145-7.
Fig. 7.— *te'ûs li^ε*, 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 lōns*, soft. 179-12.
Fig. 13.— *kwîl lûc ûñ gî*, it looks like. 170-14.





EXPLANATION OF PLATE 33

VERBAL STEMS

- Fig. 1.— *tc'geL na^ε*, he roasted.
Fig. 2.— *bec na^ε*, I will roast. 168-16.
Fig. 3.— *kúc na^ε*, I want to live. 182-5.
Fig. 4.— *na cōL na bûñ*, you must examine me. 166-10.
Fig. 5.— *ta ya^ε õ nãñ*, let them drink. 123-6.
Fig. 6.— *tc't tûg gûn nĩ*, it makes a noise.
Fig. 7.— *tc't tûg gûn nĩ*, it thundered. 77-10.
Fig. 8.— *ka gûn nãc*, he came up. 75-2.
Fig. 9.— *he ù^ε tc'n nĩ*, yes he said. 82-2; 102-8.
Fig. 10.— *gûn Lãñ*, became many. 83-14.
Fig. 11.— *gûn La ne*, have become many. 169-10.



1 t'e'ge l n a e



2 b e e n a e



3 k' n e n a e



4 n a e o l n a b u n



5 t' a y a e o n q n



6 t'e't t' u g u n n t



7 t'e't t' u g u n n t e



8 k' a g u n n q e



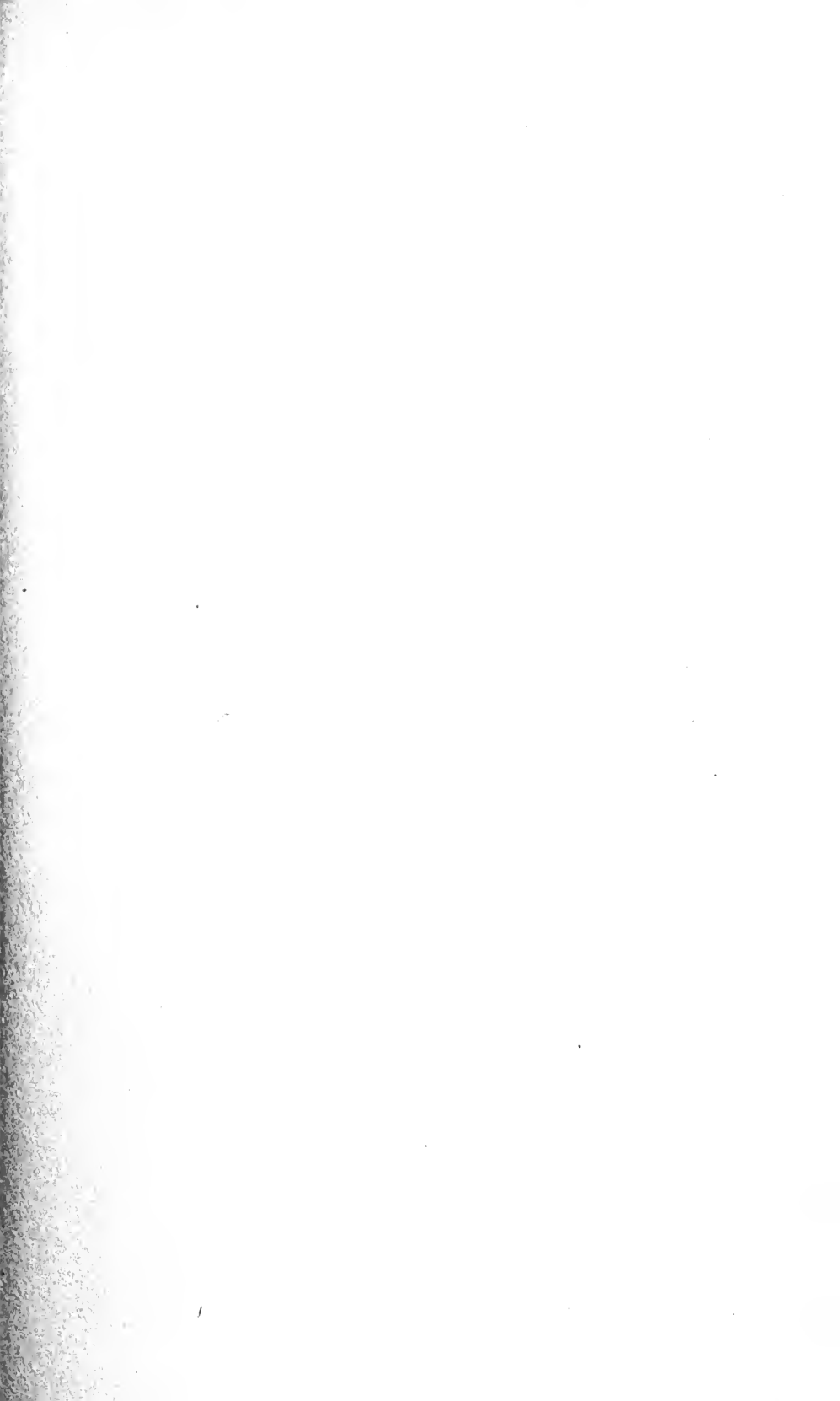
9 h e u e t'e' i n n t



10 e n n l q n



11 g u n l a n e



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.— *tc'e nan La*, he ran out. 142-6.
Fig. 5.— *n Lûts*, it is stout. 78-12.
Fig. 6.— *tc'ûL tsan*, he found. 97-4.
Fig. 7.— (*dō ha^ε*) *tc'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 sət*, sit down (sing. imp.). 140-18.
Fig. 11.— *kwūn sat*, deep water. 74-10.



1 h i n o ' l e '



2 h i n o g u l e k



3 n a n u n l a t



4 t e ' a n a n l a n



5 n l u t s '



6 t e ' a l t s q n



7 t e ' n l t s a n n e



8 s u l t z n i



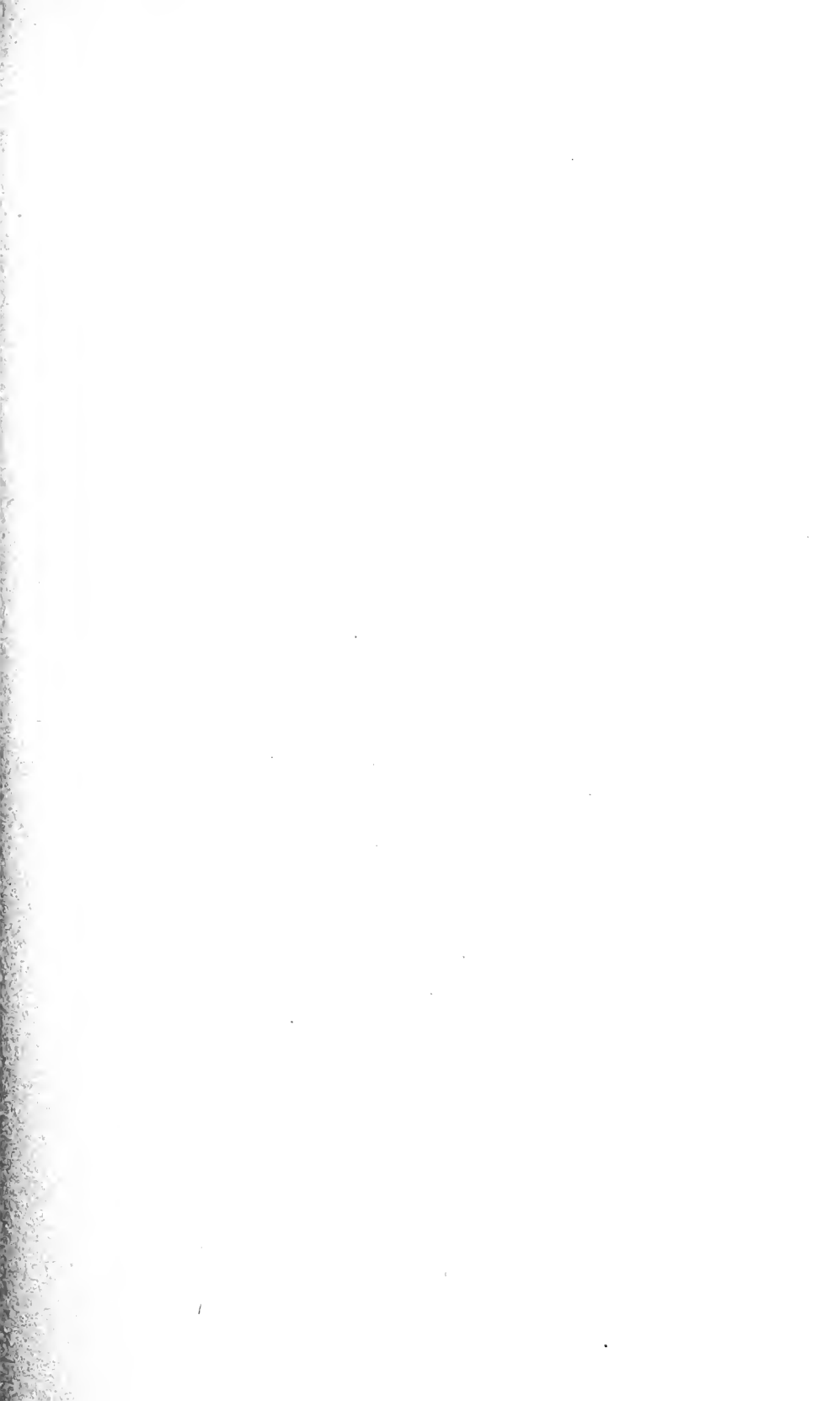
9 d o s u l s a n



10 n a n s q t



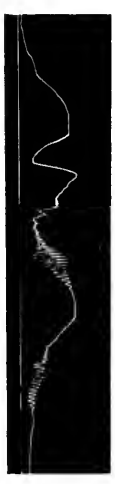
11 k' w a n s a t

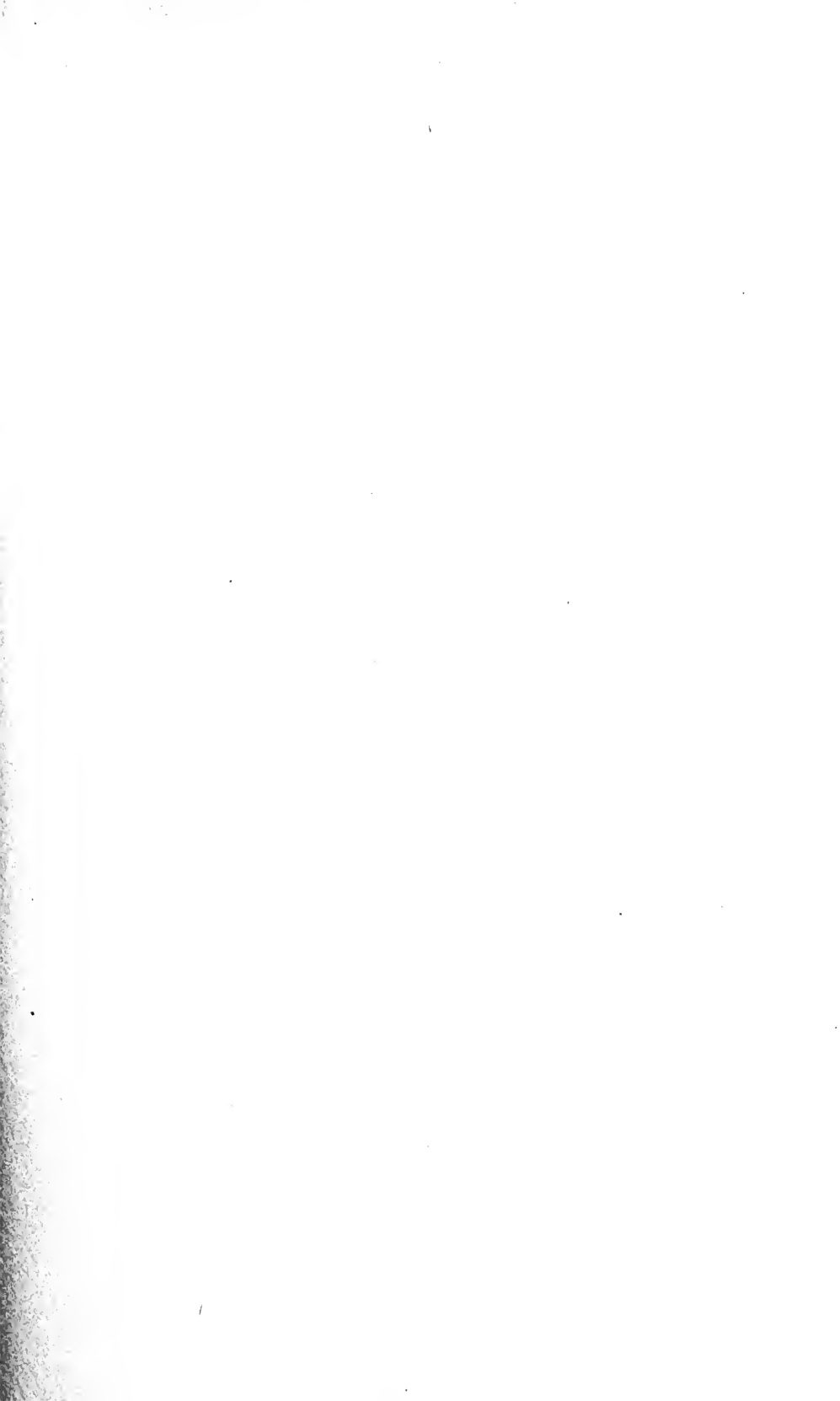


EXPLANATION OF PLATE 35

VERBAL STEMS

- Fig. 1.— *nē sīl*, 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^ε*, 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^ε*, they dug. 148-11.
- Fig. 14.— *ka te' gūn cī^ε*, 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^ε, black. 86-2.
Fig. 3.— gūL cūñ^ε, 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^ε e, I am tired. 98-1.
Fig. 7.— nīñ dōñ he^ε ūñ, are you tired (sing.). 141-1.
Fig. 8.— dō yī de he^ε e, we are tired. 116-17.
Fig. 9.— nō hīñ na'be, swim (plu. imp.). 111-2.
Fig. 10.— ya^ε 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^ε, it rained. 81-1.



1 n e ō n n e



2 n l e ŋ ŋ ε



3 ŋ ŋ ŋ l e ŋ ŋ ε



4 k'w a ŋ ŋ t e ŋ t'.



5 d ō n a l b a n n e



6 d ō y t h e ε e



7 ŋ m ŋ d ŋ ŋ h e ε ŋ ŋ ŋ



8 s d ŋ y t d e h e ε e



9 n ŋ h i ŋ n n a' t b e



10 y a ε t e' b e



11 t b ō e



12 e ŋ ŋ k t ŋ t t b ŋ l



13 t' e t b t l ε'

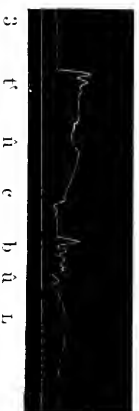
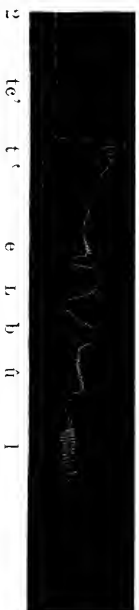




EXPLANATION OF PLATE 37

VERBAL STEMS

- Fig. 1.— *de mũñ^ε* (*din bũñ^ε*), it was full. 129-12.
Fig. 2.— *te't teL bũl*, he hung it up.
Fig. 3.— *tũc bũl*, I will hang up. 115-6.
Fig. 4.— *te'wõ' bũL*, carry it (plu. imp.). 110-15.
Fig. 5.— *ta te'ũm mũL*, cook mush (sing. imp.). 163-14.
Fig. 6.— *ta te'õ' bũL*, cook mush (plu. imp.). 123-13.
Fig. 7.— *sũn da*, you stay (sing. imp.). 79-7.
Fig. 8.— *te'n nes dai*, he sat down. 161-10.
Fig. 9.— *nũc dac*, I will dance. 103-9.
Fig. 10.— *te'e na gũt dac*, he came out again. 149-13.
Fig. 11.— *te' gũn dac kwañ*, he had danced.
Fig. 12.— *ka sũ del^ε*, we came up. 141-2.
Fig. 13.— *Le ne^ε ha^ε te'n nũn del^ε*, all came up.



12 k' a s t d e l e

13 l e n e h a e t e' n n d e l e

10 t e' e n a g n t d a e

11 t e' g n n d a e k' w n n

4 t e' w o e b n l

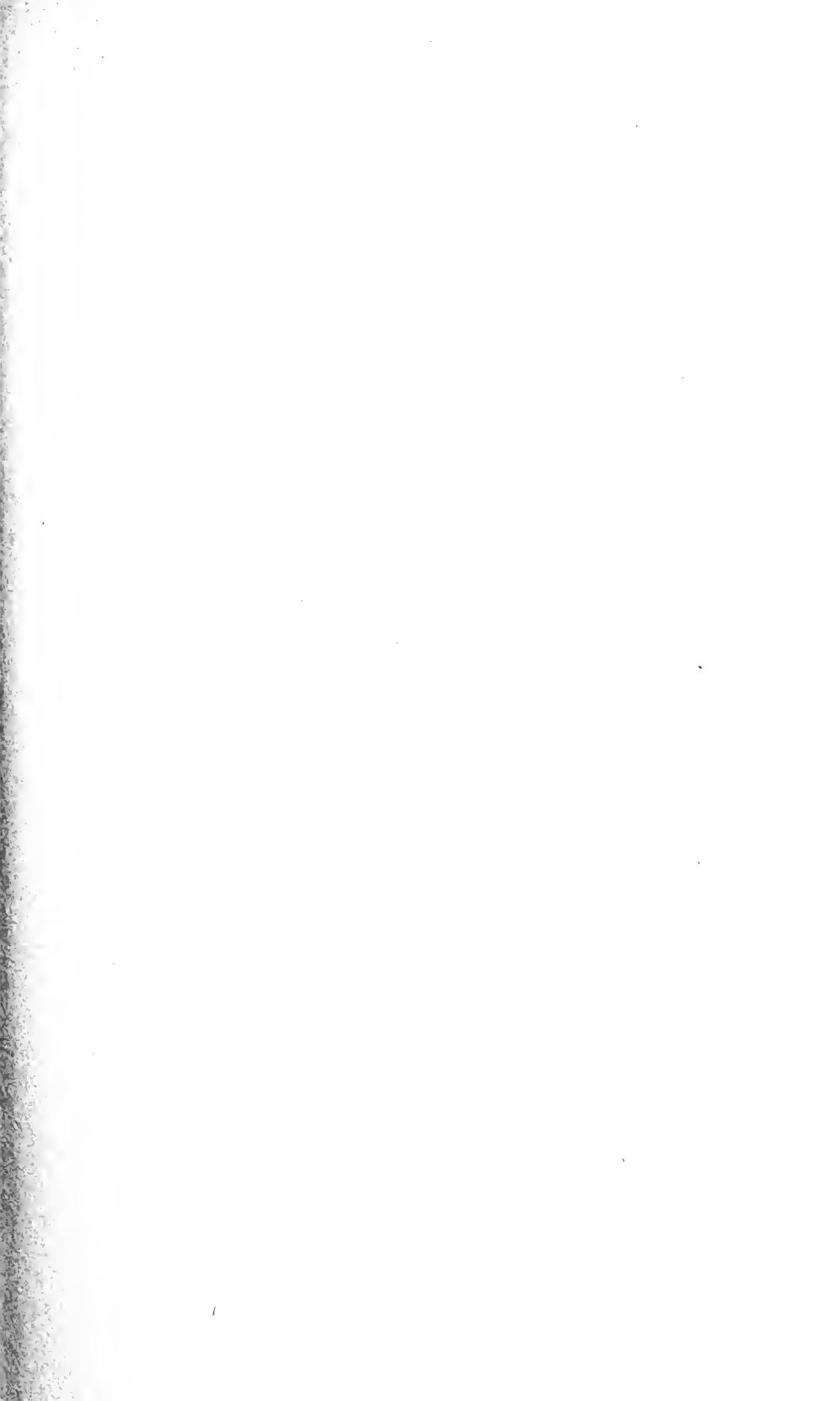
5 t' a t e' n m n n l

6 t' a t e' o' b n l

7 s n n d a

8 t e' n n e s d a i

9 n n e d a e



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 deg*, she washed them.
Fig. 4.— *cūn dī ne*, the sun shines. 182-13.
Fig. 5.— *n dō^ε būñ*, it will not be. 80-13.
Fig. 6.— *n dō^ε 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^ε*, he stepped in water.
Fig. 11.— *te't tañ^ε ūñ gī*, he is eating. 174-1.



1 t'e' t' e s d e l e



2 t' t' d n r



3 t' e' n a t'e' n L d e k



4 e' n n d i n e



5 n d n e h n n



6 n d n e y e



7 e e d n n n e



8 t'e' n L d n k



9 e e d n n t' e l e



10 t' e' t' e' g n n t' a l e



11 t'e' t' t' a n e n n g t



EXPLANATION OF PLATE 39

VERBAL STEMS

- Fig. 1.— *ka kw nō'te*, look for him. 160-1.
Fig. 2.— *de dīe tǎñ*, I put in the fire.
Fig. 3.— *be gūn teḡ*, he taught. 122-11.
Fig. 4.— *tcin nō^ε nūn tīc*, hide yourself (sing.).
Fig. 5.— *nes tīñ*, it is lying. 182-3.
Fig. 6.— *nō'tīc*, put it (plu. imp.). 168-13.
Fig. 7.— *nūn s'ūs tīñ*, he picked him up. 179-14.
Fig. 8.— *tǎn nas tīñ*, she took out again. 129-2.
Fig. 9.— *cī sī tī ne*, I lay. 175-16.
Fig. 10.— *nō niL tī ne*, he put it.
Fig. 11.— *na te'ōL tōñ^ε*, he snapped it



1 k' a k w n ō ' t e



2 d e' d t e t a n̄



3 h e k n̄ n t' e g



4 t e i m n ō e n n̄ n t' i e



5 n e s t' i n̄



6 n ō ' t i e



7 n n̄ n s' n̄ s t i n̄



8 t' q n a s t' i n̄



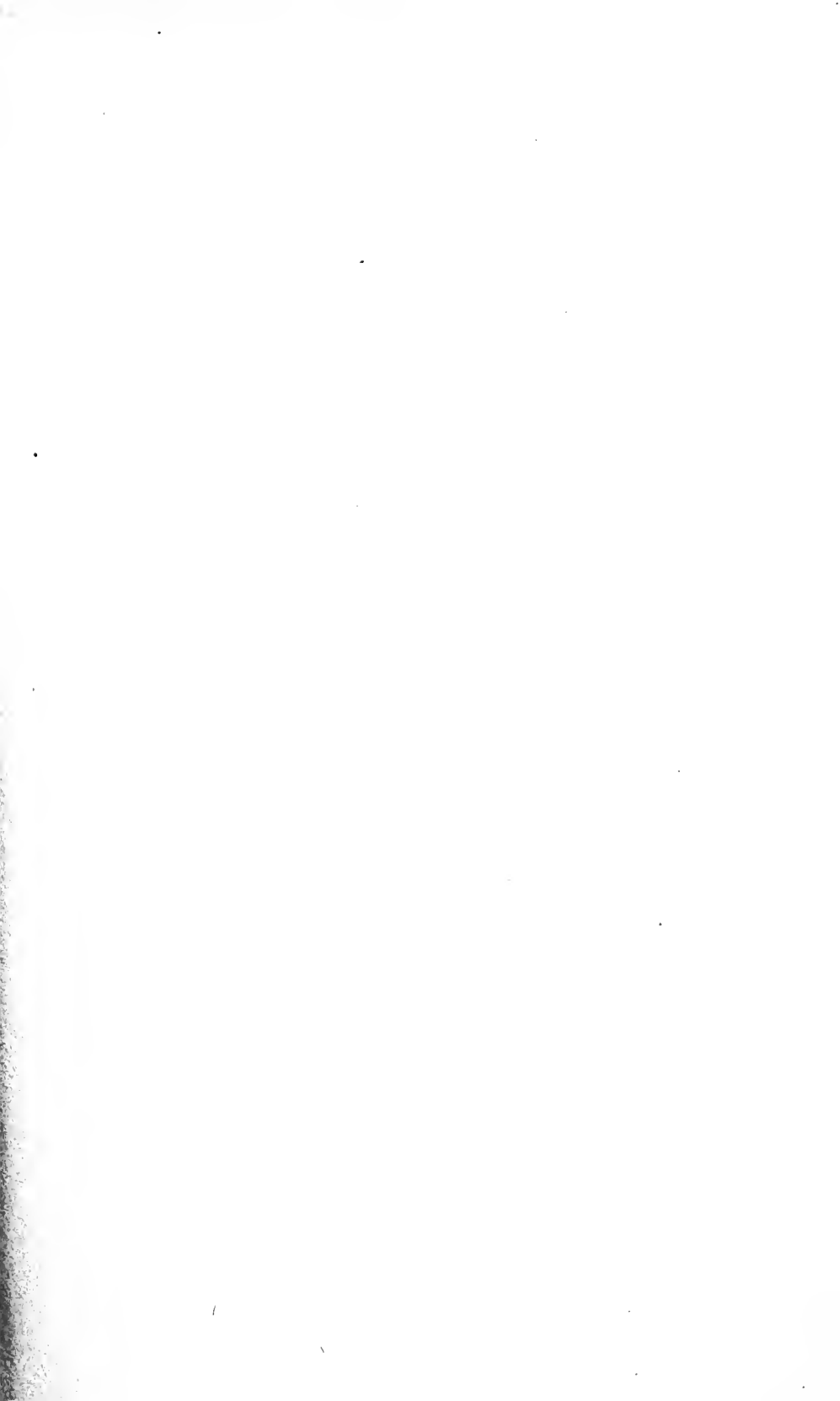
9 e t i s i t' i n e



10 n ō n i l t' i n e



11 n a t e' ō l t ō n̄ e



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 nīc t'a kwic, I am going to sling at him. 122-14.
Fig. 10.— nō hiñ tōL t'e, you cook (plu. imp.). 167-16.
Fig. 11.— nō hiñ te'n nōL t'as, you cut them (plu. imp.). 166-15.
Fig. 12.— te'n ne sīL 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 yĭL tsŭL, it beat against. 86-12.
Fig. 3.— tən nas djŏl^ε, 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 ðic tean ne, I ate. 171-9.
Fig. 7.— s'ŭs te'añ, he shot it.
Fig. 8.— ŭL teĭ, make it. 79-8.
Fig. 9.— te'gŭl teĭl, he kept making. 144-8.
Fig. 10.— ō te'ō nĭ tea ne, I left him. 117-17.
Fig. 11.— te' gŭn tee ge, he cried.
Fig. 12.— te' te gŭs teĭ^ε, nearly daylight.
Fig. 13.— te'ŭñ gŭn tee^ε, he was angry.



1 k'grũl ts' e g'



2 nũnyĩl tsũl



3 tqumãsdjõl



4 nãdũl tãñ k'wãñ



5 ñãñã tãl



6 nãdĩetãññe



7 s'ũs tãrãñ



8 ãl tãl



9 rũl tãl



10 õ tã õñĩ tãrãññe



11 tãgrũñtãe g e



12 tã tãe grũs tãl



13 tãñgrũñtãe

EXPLANATION OF PLATE 42

VERBAL STEMS

- Fig. 1.— cī te sīL tcōl^ε, I stole.
- Fig. 2.— gūL tcūt, he caught them.
- Fig. 3.— na gūL tcūL ya^ε nī, he got wet they say. 126-16.
- Fig. 4.— te'el tcūt, stretch it out (sing. imp.). 77-13.
- Fig. 5.— te'el tei^ε ya^ε 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^ε, it is mouldy. 167-16.
- Fig. 10.— te' gūn ga ne, he killed.
- Fig. 11.— k'e gūL gal^ε, she threw away.
- Fig. 12.— na^ε deL gaL kwañ, he had poured. 125-13.



1 e i t' e s i l t e ō l ε



2 ŋ ō l t e ō t



3 n a ŋ ō l t e ō l



4 t e' e l t e ō t



5 t e' e l t e i' ε y a ε n t



6 m a ŋ a k w ŋ ŋ



7 n ō n i e ŋ ŋ l



8 n ō n s ō l ŋ a l



9 t e' t ŋ a ŋ ε



10 t e' ŋ ō n ŋ a n e



11 k' e ŋ ō l ŋ a l ε



12 n a ε d e l ŋ ŋ l k' w ŋ ŋ

EXPLANATION OF PLATE 43

VERBAL STEMS

- Fig. 1.— gûl ge le, it was getting late.
Fig. 2.— n hōc t ge^ε, let me see you. 142-6.
Fig. 3.— te't tes gīñ, he carried. 101-9.
Fig. 4.— te'ō na gât gûc, he looked back. 87-13.
Fig. 5.— te'ōn t gets', he looked at them.
Fig. 6.— te' nō dūg ge^ε, we will put in water. 139-9.
Fig. 7.— te'n nûg gûc, she brings in. 180-9.
Fig. 8.— nī gīn ne', I bring. 138-14.
Fig. 9.— te'n nûñ ñīñ, he brought. 135-11.
Fig. 10.— sêl gin ya^ε nī, he killed they say. 141-13.
Fig. 11.— Lel yīts', he tied together. 174-15.



1 ɣ̃ ã l ɣ̃ e l e



2 n h õ e t ɣ̃ e e



3 t e' t' e s ɣ̃ i ñ



4 t e' õ n a ɣ̃ ñ t' ɣ̃ ñ e



5 t e' õ n t' ɣ̃ e t s e



6 t' e' n õ d ñ ɣ̃ ɣ̃ e e



7 t e' n n ã ɣ̃ ã e



8 n i ɣ̃ i u n e'



9 t e' n n ã ñ ñ i ñ



10 s e l ɣ̃ i n y a e n i



11 L e l y t s e

EXPLANATION OF PLATE 44

VERBAL STEMS

- Fig. 1.— *te' qaL ya^ε 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.— *te' ge qōt*, they stretched. 114-1.
Fig. 5.— *te'e naiL gat de*, he sewed up. 122-13.
Fig. 6.— *nō na^εn ūq̄t*, he untied it. 122-15.
Fig. 7.— *ūñ qōt*, spear it. 128-12.
Fig. 8.— *nūn ūn dūk k'e^ε*, get up (sing. imp.). 100-3.
Fig. 9.— *dō te't tūL k'ūe*, 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 kae, that one give him (a basket of food).
Fig. 2.— na' ke^ε, bathe (plu. imp.). 172-14.
Fig. 3.— bel ke^ε, 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^ε ha^ε te'n nūl kūt, all they came. 154-12.
Fig. 7.— dō ha^ε te't tel kūt, they did not go. 167-17.
Fig. 8.— dō ha^ε cō dōL kūt, do not ask me. 166-8.
Fig. 9.— nūn neL k'ai ya^ε 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'ōte', it got sour.



1 h a y t k' o w a' k' a e



2 n a' k' e e



3 b e l k' e e



4 n o e k' a t



5 t' e' g' a l k' a t



6 l e n e' h a e t' e' m' a l k' a t



7 d o h a e t' e' t' e l k' a t



8 d o h a e e o d o l k' a t



9 n a n n e l k a i y a e n t



10 e' a l k' a n



11 a l k' a n



12 t' g' o n k' o t e

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