SMITHSONIAN INSTITUTION
BUREAU OF AMERICAN ETHNOLOGY
BULLETIN 40

HANDBOOK OF AMERICAN INDIAN LANGUAGES

BY

FRANZ BOAS

PART 2

WITH ILLUSTRATIVE SKETCHES

By EDWARD SAPIR, LEO J. FRACHTENBERG, AND WALDEMAR BOGORAS

WASHINGTON
GOVERNMENT PRINTING OFFICE
1922

LETTER OF TRANSMITTAL

SMITHSONIAN INSTITUTION,
BUREAU OF AMERICAN ETHNOLOGY,
Washington, D. C., February 20, 1911.

SIR: I have the honor to submit for publication, subject to your approval, as Bulletin 40, Part 2, of this Bureau, the manuscript of a portion of the Handbook of American Indian Languages, prepared under the editorial supervision of Dr. Franz Boas.

Yours, respectfully,

F. W. HODGE,
Ethnologist in Charge.

Dr. CHARLES D. WALCOTT,
Secretary of the Smithsonian Institution.

CONTENTS

THE TAKELMA LANGUAGE OF SOUTH-WESTERN OREGON

BY

EDWARD SAPIR

3045°—Bull. 40, pt 2—12——1

CONTENTS

THE TAKELMA LANGUAGE OF SOUTHWESTERN OREGON

By Edward Sapir

§ 1. INTRODUCTION

The language treated in the following pages was spoken in the southwestern part of what is now the state of Oregon, along the middle portion of Rogue river and certain of its tributaries. It, together with an upland dialect of which but a few words were obtained, forms the Takilman stock of Powell. The form "Takelma" of the word is practically identical with the native name of the tribe, *Dā^{a}gelma'$^{\varepsilon}$n* THOSE DWELLING ALONG THE RIVER (see below, § 87, 4); there seems to be no good reason for departing from it in favor of Powell's variant form.

The linguistic material on which this account of the Takelma language is based consists of a series of myth and other texts, published by the University of Pennsylvania (Sapir, Takelma Texts, *Anthropological Publications of the University Museum*, vol. II, no. 1, Philadelphia, 1909), together with a mass of grammatical material (forms and sentences) obtained in connection with the texts. A series of eleven short medicine formulas or charms have been published with interlinear and free translation in the *Journal of American Folk-Lore* (XX, 35–40). A vocabulary of Takelma verb, noun, and adjective stems, together with a certain number of derivatives, will be found at the end of the "Takelma Texts." Some manuscript notes on Takelma, collected in the summer of 1904 by Mr. H. H. St. Clair, 2d, for the Bureau of American Ethnology, have been kindly put at my disposal by the Bureau; though these consist mainly of lexical material, they have been found useful on one or two points. References like 125.3 refer to page and line of my Takelma Texts. Those in parentheses refer to forms analogous to the ones discussed.

The author's material was gathered at the Siletz reservation of Oregon during a stay of a month and a half in the summer of 1906, also under the direction of the Bureau of American Ethnology. My informant was Mrs. Frances Johnson, an elderly full-blood Takelma woman. Her native place was the village of *Dak'ts!asiñ* or *Daldani'k'*, on Jump-off-Joe creek (*Dīp!ōlts!i'lda*), a northern affluent of Rogue river, her mother having come from a village on the upper course of Cow creek (*Hagwāl*). Despite her imperfect command of the English language, she was found an exceptionally intelligent and good-humored informant, without which qualities the following study would have been far more imperfect than it necessarily must be under even the very best of circumstances.

In conclusion I must thank Prof. Franz Boas for his valuable advice in regard to several points of method and for his active interest in the progress of the work. It is due largely to him that I was encouraged to depart from the ordinary rut of grammatical description and to arrange and interpret the facts in a manner that seemed most in accordance with the spirit of the Takelma language itself.[1]

PHONOLOGY (§§ 2–24)

§ 2. Introductory

In its general phonetic character, at least as regards relative harshness or smoothness of acoustic effect, Takelma will probably be found to occupy a position about midway between the characteristically rough languages of the Columbia valley and the Nŏrth Californian and Oregon coast (Chinookan, Salish, Alsea, Coos, Athapascan, Yurok) on the one hand, and the relatively euphonious languages of the Sacramento valley (Maidu, Yana, Wintun) on the other, inclining rather to the latter than to the former.

From the former group it differs chiefly in the absence of voiceless *l*-sounds (ʟ, *ɬ*,[2] ʟ!) and of velar stops (*q*, *ǧ*, *q!*); from the latter,

[1] What little has been learned of the ethnology of the Takelma Indians will be found incorporated in two articles written by the author and entitled Notes on the Takelma Indians of Southwestern Oregon, in *American Anthropologist*, n. s., IX, 251–275; and Religious Ideas of the Takelma Indians of Southwestern Oregon, in *Journal of American Folk-Lore*, XX, 33–49.

[2] In the myths, *ɬ* is freely prefixed to any word spoken by the bear. Its uneuphonious character is evidently intended to match the coarseness of the bear, and for this quasi-rhetorical purpose it was doubtless derisively borrowed from the neighboring Athapascan languages, in which it occurs with great frequency. The prefixed sibilant *s*ʷ serves in a similar way as a sort of sneezing adjunct to indicate the speech of the coyote. ***Gwi'di*** WHERE? says the ordinary mortal; ***ɬgwi'di***, the bear; ***s·gwi'di***, the coyote.

in the occurrence of relatively more complex consonantic clusters, though these are of strictly limited possibilities, and hardly to be considered as difficult in themselves.

Like the languages of the latter group, Takelma possesses clear-cut vowels, and abounds, besides, in long vowels and diphthongs; these, together with a system of syllabic pitch-accent, give the Takelma language a decidedly musical character, marred only to some extent by the profusion of disturbing catches. The line of cleavage between Takelma and the neighboring dialects of the Athapascan stock (Upper Umpqua, Applegate Creek, Galice Creek, Chasta Costa) is thus not only morphologically but also phonetically distinct, despite resemblances in the manner of articulation of some of the vowels and consonants. Chasta Costa, formerly spoken on the lower course of Rogue river, possesses all the voiceless *l*-sounds above referred to; a peculiar illusive *q!*, the fortis character of which is hardly as prominent as in Chinook; a voiced guttural spirant *γ*, as in North German *Tage;* the sonants or weak surds *dj* and *z* (rarely); a voiceless interdental spirant *ç* and its corresponding fortis *tç!;* and a very frequently occurring *û* vowel, as in English HUT. All of these are absent from Takelma, which, in turn, has a complete labial series (*b*, *p'*, *p!*, *m*), whereas Chasta Costa has only the nasal *m* (labial stops occur apparently only in borrowed words, *bōçi'* CAT <*pussy*). The fortis *k!*, common in Takelma, seems in the Chasta Costa to be replaced by *q!;* the Takelma vowel *ü*, found also in California, is absent from Chasta Costa; *r* is foreign to either, though found in Galice Creek and Shasta. Perhaps the greatest point of phonetic difference, however, between the Takelma and Chasta Costa languages lies in the peculiar long (doubled) consonants of the latter, while Takelma regularly simplifies consonant geminations that would theoretically appear in the building of words. Not enough of the Shasta has been published to enable one to form an estimate of the degree of phonetic similarity that obtains between it and Takelma, but the differences can hardly be as pronounced as those that have just been found to exist in the case of the latter and Chasta Costa.

This preliminary survey seemed necessary in order to show, as far as the scanty means at present at our disposal would allow, the phonetic affiliations of Takelma. Attention will now be directed to the sounds themselves.

§ 2

Vowels (§§ 3–11)

§ 3. *General Remarks*

The simple vowels appear, quantitatively considered, in two forms, short and long, or, to adopt a not inappropriate term, pseudo-diphthongal. By this is meant that a long vowel normally consists of the corresponding short vowel, though generally of greater quantity, plus a slight parasitic rearticulation of the same vowel (indicated by a small superior letter), the whole giving the effect of a diphthong without material change of vowel-quality in the course of production. The term PSEUDO-DIPHTHONG is the more justified in that the long vowel has the same absolute quantity, and experiences the same accentual and syllabic treatment, as the true diphthong, consisting of short vowel + *i*, *u*, *l*, *m*, or *n*. If the short vowel be given a unitary quantitative value of 1, the long vowel (pseudo-diphthong) and ordinary diphthong will have an approximate value of 2; while the long diphthong, consisting of long vowel + *i*, *u*, *l*, *m*, or *n*, will be assigned a value of 3. The liquid (*l*) and the nasals (*m* and *n*) are best considered as forming, parallel to the semi-vowels *y* (*i*) and *w* (*u*), diphthongs with preceding vowels, inasmuch as the combinations thus entered on are treated, similarly to *i*- and *u*- diphthongs, as phonetic units for the purposes of pitch-accent and grammatic processes. As a preliminary example serving to justify this treatment, it may be noted that the verb-stem *bilw-*, *bilu-* JUMP becomes *bilau-* with inorganic *a* under exactly the same phonetic conditions as those which make of the stem *k!emn-* MAKE *k!eman-*. We thus have, for instance:

bilwa'ᵉs jumper; *bila'uk'* he jumped
k!emna'ᵉs maker; *k!ema'nk'* he made it

From this and numberless other examples it follows that *au* and *an*, similarly *ai*, *al*, and *am*, belong, from a strictly Takelma point of view, to the same series of phonetic elements; similarly for *e*, *i*, *o*, and *ü* diphthongs.

§ 4. *System of Vowels*

The three quantitative stages outlined above are presented for the various vowels and diphthong-forming elements in the following table:

I. Short.	II. Long.	Short diphthong.					III. Long diphthong.				
a	*ā*^{a}, (*ā*)	*ai*,	*au*,	*al*,	*am*,	*an*	*āi*,	*āu*,	*āal*,	*āam*,	*āan*
e	*e*^{e}, (*è*)	*ei*,	*eu*,	*el*,	*em*,	*en*	*èi*,	*èu*,	*eel*,	*eem*	*een*
i	*ī*^{i}, (*ī*)		*iu*,	*il*,	*im*,	*in*		*īu*,	*īil*,	*īim*,	*īin*
o, (*u*)	*ō*^{u}, (*ō*)	*oi*,	*ou*, (*ōu*)	*ol*, (*ul*)	*om*, (*um*)	*on* (*un*)	*ōi*,	*ō*^{u}(*w*),	*ōul*,	*ōum*,	*ōun*
ū	*ū*^{u}, (*ū*)	*ui*,	*ūw*, (*ūu*)	*ūl*,	*ūm*,	*ūn*	*ūi*,	*ū*^{u}(*w*),	*ūul*,	*ūum*,	*ūun*
ü	*ü*^{ü}, (*ü*^{ü})	*üi*,	*üw*, (*üü*)	*ül*,	*üm*,	*ün*	*üi*,	*üü*(*w*),	*üül*,	*üüm*,	*üün*

It is to be understood, of course, that, under proper syllabic conditions, *i* and *u* may respectively appear in semivocalic form as *y* and *w;* thus *ō*^{u} and *ū*^{u} appear as *ōw* and *ūw* when followed by vowels; e. g., in *k!ūwū*^{u}- THROW AWAY, *ūw* and *ū*^{u} are equivalent elements forming a reduplicated complex entirely analogous to *-elel-* in *helel-* SING. Similarly *ai*, *au*, *āi*, and *āu* may appear as *ay*, *aw*, *ā*^{a}*y*, and *ā*^{a}*w;* and correspondingly for the other vowels. Indeed, one of the best criteria for the determination of the length of the first element of a diphthong is to obtain it in such form as would cause the second element (*i* or *u*) to become semi-vocalic, for then the first vowel will adopt the form of a short vowel or pseudo-diphthong, as the case may be. The following phonetic (not morphologic) proportions will make this clearer:

*bil*iu*t'e*$^{\varepsilon}$ I jump: *bil*iwa*t'* you jump = *he*$^{e\varepsilon}$īu he went away from him: *he*$^{e\varepsilon}$ī^{i}w*i'*$^{\varepsilon}$*n* I went away from him

gaik' he ate it: *gayawa'*$^{\varepsilon}$*n* I ate it = *gāik'* he grew: *gā*^{a}*ya'*$^{\varepsilon}$*t'* he will grow

*gay*au he ate it: *gay*awa'$^{\varepsilon}$*n* I ate it = *hant'gāu* over land: *Latg'ā*^{a}*wa'*$^{\varepsilon}$ one from Lat'gāu [uplands]

Sometimes, though not commonly, a diphthong may appear in the same word either with a semivowel or vowel as its second element, according to whether it is or is not followed by a connecting inorganic *a*. A good example of such a doublet is *hay*e^{e}w*a'xdā*^{a}*da* or *hay*èu*xdā*^{a}*da* IN HIS RETURNING (verb stem *yèu-*, *ye*^{e}*w-* RETURN). It is acoustically difficult to distinguish sharply between the long vowel or pseudo-diphthong *ō*^{u} and the *u*-diphthongs of *o* (both *ou* and *ōu* are often heard as *ō*^{u}), yet there is no doubt that there is an organic difference between *ō*^{u}, as long vowel to *o*, and *ō*^{u} = *ou*, *ōu*. Thus, in *lohō*^{u}*na'*$^{\varepsilon}$*n* I CAUSE HIM TO DIE, and *lohona'n* I SHALL CAUSE HIM TO DIE, *ō*^{u} and *o* are related as long and short vowel in parallel

fashion to the $\bar{a}^a$ and a of *yā^{a}na't'* YOU WENT, and *yanada'^{ɛ}* YOU WILL GO. On the other hand, the $\bar{o}^u$ of *p'$\bar{o}^u$p'au-* (aorist stem) BLOW is organically a diphthong ($\bar{o}u$), the $\bar{o}^u$ of the first syllable being related to the *au* of the second as the *iu* of *k'iuk'au-* (verb stem) BRANDISH is to its *au*. Similarly, the *-$\bar{o}^u$-* of *s·$\bar{o}'^{u\varepsilon}$k'ôp'-* (verb stem) JUMP is organic shortened *ou*, related to the *-owo-* of the aorist stem *s·o'wo^{ɛ}k'ôp'-* as the *-e^i-* of *he'$^{i\varepsilon}$x-* (verb stem) BE LEFT OVER is to the *-eye-* of *heye^{ɛ}x-* (aorist stem). A similar acoustic difficulty is experienced in distinguishing *ü$^{\ddot{u}}$*, ($\bar{u}^u$) as long vowel from the *u-* diphthongs of *ü*, ($\bar{u}$).

Examples of unrelated stems and words differing only in the length of the vowel or diphthong are not rare, and serve as internal evidence of the correctness, from a native point of view, of the vowel classification made:

gai- eat, but *gāi-* grow
verb-prefix *dā^a-* ear, but *da-* mouth
wā^{a}xa his younger brother, but *wa'xa* at them

It may happen that two distinct forms of the same word differ only in vocalic quantity; *yā^{a}da'^{ɛ}t'* HE WILL SWIM, *yada'^{ɛ}t'* HE SWIMS.

It is, naturally enough, not to be supposed that the long vowels and diphthongs always appear in exactly the same quantity. Speed of utterance and, to some extent, withdrawal of the stress-accent, tend to reduce the absolute quantities of the vowels, so that a normally long vowel can become short, or at least lose its parasitic attachment. In the case of the *i-* and *u-* diphthongs, such a quantitative reduction means that the two vowels forming the diphthong more completely lose their separate individuality and melt into one. Quantitative reduction is apt to occur particularly before a glottal catch; in the diphthongs the catch follows so rapidly upon the second element (*i* or *u*) that one can easily be in doubt as to whether a full *i-* or *u-* vowel is pronounced, or whether this second vowel appears rather as a palatal or labial articulation of the catch itself. The practice has been adopted of writing such diphthongs with a superior *i* or *u* before the catch: $a^{i\varepsilon}$, $a^{u\varepsilon}$, $e^{u\varepsilon}$, and similarly for the rest. When, however, in the course of word-formation, this catch drops off, the *i* or *u* that has been swallowed up, as it were, in the catch reasserts itself, and we get such pairs of forms as:

naga'$^{i\varepsilon}$ he said; but *naga'ida^ɛ* when he said
sgele'$^{u\varepsilon}$ he shouted; but *sgele'uda^ɛ* when he shouted

On the other hand, vowels naturally short sometimes become long when dwelt upon for rhetorical emphasis. Thus *ga* THAT sometimes appears as *gā*^{a}:

gā^{a} *loho't'e*^{e} in *that* case I shall die
gā'^{a} *ga*^{s}*a'l* for *that* reason

As regards the pronunciation of the vowels themselves, little need be said. The *a* is of the same quality as the short *a* of German MANN, while the long *ā*^{a} (barring the parasitic element) corresponds to the *a* of HAHN.

A labial coloring of the *a* (i. e., *ô* as in German VOLL) frequently occurs before and after *k'*^{w}:

gāhôk'^{w} planted, sown
īk'wā'^{a}*k'wôk'* he woke him up

But there were also heard:

sēk'ak'^{w} shot
malāk'wa he told him

The *e* is an open sound, as in the English LET; it is so open, indeed, as to verge, particularly after *y*, toward *a*.[1] Also the long vowel *e*^{e} is very open in quality, being pronounced approximately like the *ei* of English THEIR (but of course without the *r*- vanish) or the ê of French FÊTE; *e*^{e}, though unprovided with the mark of length, will be always understood as denoting the long vowel (pseudo-diphthong) corresponding to the short *e;* while *è* will be employed, wherever necessary, for the long vowel without the parasitic -^{e}. The close *ē*, as in German REH, does not seem to occur in Takelma, although it was sometimes heard for *i;* in the words *lā*^{a}*lē'* HE BECAME, *lā*^{a}*lēt'am* YOU BECAME, and other related forms, *ē* was generally heard, and may be justified, though there can be small doubt that it is morphologically identical with the *ī*^{i} of certain other verbs.

The *i* is of about the same quality as in English HIT, while the long *ī*^{i} is closer, corresponding to the *ea* of English BEAT. Several monosyllables, however, in *-i*, such as *gwi* WHERE, *di* interrogative particle, should be pronounced with a close though short vowel (cf. French FINI). This closer pronunciation of the short vowel may be explained by supposing that *gwi*, *di*, and other such words are rapid pronunciations of *gwī*^{i}, *dī*^{i}, and the others; and indeed the texts sometimes show such longer forms.

[1] The word *yewe'i*^{e} HE RETURNED, e. g., was long heard as *yawe'i*^{e}, but such forms as *yèu* RETURN! show this to have been an auditory error.

The *o* is a close vowel, as in German SOHN, as far as the quality is concerned, but with the short quantity of the *o* of VOLL. This closeness of pronunciation of the *o* readily explains its very frequent interchange with *u:*

ītsˑ!oˈpʿal sharp-clawed
detsˑ!uguʿtʿ sharp-pointed

and also the *u-* quality of the parasitic element in the long close vowel $\bar{o}^u$. The short open *ô*, as in German VOLL, never occurs as a primary vowel, but is practically always a labialized variant of *a*. Thus in Takelma, contrary to the parallelism one ordinarily expects to find in vocalic systems, *e-* vowels are open in quality, while *o-* vowels are close.

The vowel *ū* is close, as in the English word RUDE, the long mark over the *u* being here used to indicate closeness of quality rather than length of quantity. The *ü* is not identical with the German *ü*, but is somewhat more obscure in quality and wavers (to an un-Indian ear) between the German short *ü* of MÜTZE and *u* of MUSS; sometimes it was even heard with the approximate quality of the short *ö* of GÖTZ. The long $ü^{ü}$ is, in the same way, not exactly equivalent to the long *ü* of the German SÜss, but tends in the direction of $\bar{u}^u$, with which it frequently varies in the texts. It is somewhat doubtful how far the two vowels *ū* and *ü* are to be considered separate and distinct; it is quite possible that they should be looked upon as auditory variants of one sound. Before or after *y* or *w*, *ü* is apt to be heard as *ū*, —— *k!ūwūˈᵉ* THEY RAN AWAY, *ūyūˈᵉsˑ* HE LAUGHED, *īgūyūgīˈⁱsi*, HE KEEPS NUDGING ME, —— otherwise often as *u*.

The only short vowel not provided for in the table is *û* (as in English SUN), which, however, has no separate individuality of its own, but is simply a variant form of *a*, heard chiefly before *m:*

heᵉᵉīleˈmeᵉxûm he killed us off (for *-am*)
xûm in water (for *xam*)

The absence of the obscure vowel *ᴇ* of indeterminate quality is noteworthy as showing indirectly the clear-cut vocalic character of Takelma speech. Only in a very few cases was the *ᴇ* heard, and in the majority of these it was not a reduced vowel, but an intrusive sound between *m* and *s:*

dakʿtʿbeˈᵉᵉkʿtʿbagamᴇs he tied his hair up into top-knot (in place of *-ams*).

Even here it may really have been the strongly sonantic quality of the *m* in contrast to the voiceless *s* that produced the acoustic effect of an obscure vowel. The exact pronunciation of the diphthongs will be better understood when we consider the subject of pitch-accent.

§ 5. *Stress and Pitch-Accent*

Inasmuch as pitch and stress accent are phonetic phenomena that affect more particularly the vowels and diphthongs, it seems advisable to consider the subject here and to let the treatment of the consonants follow. As in many Indian languages, the stress-accent of any particular word in Takelma is not so inseparably associated with any particular syllable but that the same word, especially if consisting of more than two syllables, may appear with the main stress-accent now on one, now on the other syllable. In the uninterrupted flow of the sentence it becomes often difficult to decide which syllable of a word should be assigned the stress-accent. Often, if the word bears no particular logical or rhythmic emphasis, one does best to regard it as entirely without accent and as standing in a proclitic or enclitic relation to a following or preceding word of greater emphasis. This is naturally chiefly the case with adverbs (such as *he$^{\varepsilon}$ne* THEN) and conjunctive particles (such as *ganēhi$^{\varepsilon}$* AND THEN; *agas·i$^{\varepsilon}$* AND SO, BUT THEN); though it not infrequently happens that the major part of a clause will thus be strung along without decided stress-accent until some emphatic noun or verb-form is reached. Thus the following passage occurs in one of the myths:

ganēhi$^{\varepsilon}$ dewenxa lā^{a}lē hono$^{\varepsilon}$ p'ele'xa$^{\varepsilon}$, literally translated, And then to-morrow (next day) it became, again they went out to war

All that precedes the main verb-form *p'ele'xa$^{\varepsilon}$* THEY WENT OUT TO WAR is relatively unimportant, and hence is hurried over without anywhere receiving marked stress.

Nevertheless a fully accented word is normally stressed on some particular syllable; it may even happen that two forms differ merely in the place of accent:

naga'-ida$^{\varepsilon}$ when he said, but
naga-ida'$^{\varepsilon}$ when you said

The important point to observe, however, is that when a particular syllable does receive the stress (and after all most words are normally

accented on some one syllable), it takes on one of two or three musical inflections:

(1) A simple pitch distinctly higher than the normal pitch of unstressed speech (˃).

(2) A rising inflection that starts at, or a trifle above, the normal pitch, and gradually slides up to the same higher pitch referred to above (≃).

(3) A falling inflection that starts at, or generally somewhat higher than, the raised pitch of (1) and (2), and gradually slides down to fall either in the same or immediately following syllable, to a pitch somewhat lower than the normal (˂).

The "raised" pitch (˃) is employed only in the case of final short vowels or shortened diphthongs (i. e., diphthongs that, owing to speed of utterance, are pronounced so rapidly as to have a quantitative value hardly greater than that of short vowels; also secondary diphthongs involving an inorganic *a*); if a short vowel spoken on a raised pitch be immediately followed by an unaccented syllable (as will always happen, if it is not the final vowel of the word), there will evidently ensue a fall in pitch in the unaccented syllable, and the general acoustic effect of the two syllables will be equivalent to a "falling" inflection (˂) within one syllable; i. e. (if — be employed to denote an unaccented syllable), (˃) + — = (˂). The following illustration will make this clearer: YOU SANG is regularly accented *helela't'*, the *a'* being sung on an interval of a (minor, sometimes even major) third above the two unaccented *e*-vowels. The acoustic effect to an American ear is very much the same as that of a curt query requiring a positive or negative answer, DID HE GO? where the *i* of DID and *e* of HE correspond in pitch to the two *e*'s of the Takelma word, while the *o* of GO is equivalent to the Takelma *a'*. The Takelma word, of course, has no interrogative connotation. If, now, we wish to make a question out of *helela't'*, we add the interrogative particle *di*, and obtain the form *helela't'ĭdi* DID HE SING? (The *ĭ* is a weak vowel inserted to keep the *t'* and *d* apart.) Here the *a'* has about the same pitch as in the preceding word, but the *ĭ* sinks to about the level of the *e*-vowels, and the *di* is pronounced approximately a third below the normal level. The Takelma interrogative form thus bears an acoustic resemblance to a rapid English reply: SO HE *DID* GO, the *o* of SO and

e of HE corresponding in pitch to the unaccented *e-* vowels of the Takelma, the *i* of DID resembling in its rise above the normal pitch the *a'*, and the *o* of GO sinking like the *i* of the interrogative particle.[1] If the normal level of speech be set at A, the two forms just considered may be musically, naturally with very greatly exaggerated tonal effect, represented as follows:

The "rising" pitch (≃) is found only on long vowels and short or long diphthongs. The rising pitch is for a long vowel or diphthong what the raised pitch is for a short vowel or shortened diphthong; the essential difference between the two being that in the latter case the accented vowel is sung on a single tone reached without an intermediate slur from the lower level, whereas in the case of the rising pitch the affected vowel or diphthong changes in pitch in the course of pronunciation; the first part of the long vowel and the first vowel of the diphthong are sung on a tone intermediate between the normal level and the raised pitch, while the parasitic element of the long vowel and the second vowel (*i* or *u*) of the diphthong are hit by the raised tone itself. It is easy to understand that in rapid pronunciation the intermediate tone of the first part of the long vowel or diphthong would be hurried over and sometimes dropped altogether; this means that a long vowel or diphthong with rising pitch (*ã, aĩ*) becomes a short vowel or shortened diphthong with raised pitch (*a'*, *a'i*).[2] Diphthongs consisting of a short vowel +*l*, *m*, or *n*, and provided with a rising pitch, ought, in strict analogy, to appear as *añ, al̃, am̃;* and so on for the other vowels. This is doubtless the correct representation, and such forms as:

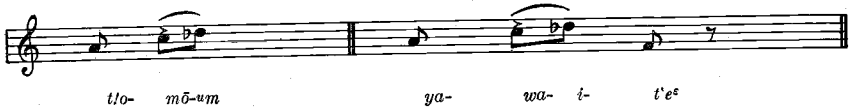
nañk' he will say, do
gwal̃t' wind
dasmayam̃ he smiled
wul̃x enemy, Shasta

were actually heard, the liquid or nasal being distinctly higher in pitch than the preceding vowel. In the majority of cases, however,

[1] It is curious that the effect to our ears of the Takelma declarative *helela'ṭ'* is of an interrogative DID YOU SING? while conversely the effect of an interrogative *helela'ṭ'idi* is that of a declarative YOU *DID* SING. This is entirely accidental in so far as a rise in pitch has nothing to do in Takelma with an interrogation.

[2] A vowel marked with the accent ≃ is necessarily long, so that the mark of length and the parasitic vowel can be conveniently omitted.

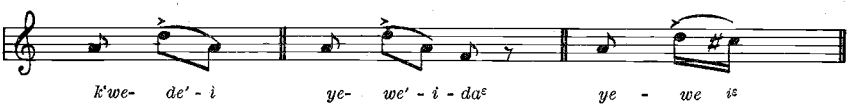
these diphthongs were heard, if not always pronounced, as shortened diphthongs with raised pitch (*a'n, a'l, a'm*). The acoustic effect of a syllable with rising pitch followed by an unaccented syllable is necessarily different from that of a syllable with falling pitch (ˆ), or of a syllable with raised pitch followed by an unaccented syllable, because of the steady rise in pitch before the succeeding fall. The tendency at first is naturally to hear the combination — ≃ — as — ˆ —, and to make no distinction in accent between *yewe'ida*ᵋ WHEN HE RETURNED and *yewẽĭ'e*ᵋ I RETURNED; but variations in the recorded texts between the rising and falling pitch in one and the same form are in every case faults of perception, and not true variations at all. The words *t!omõm* HE KILLED HIM and *yawaĭt'e*ᵋ I SPOKE may be approximately represented in musical form as follows:



The falling pitch (ˆ) affects both long and short vowels as well as diphthongs, its essential characteristic being, as already defined, a steady fall from a tone higher than the normal level. The peak of the falling inflection may coincide in absolute pitch with that of the rising inflection, though it is often somewhat higher, say an interval of a fourth above the ordinary level. The base (lowest tone) of the fall is not assignable to any definite relative pitch, the gamut run through by the voice depending largely upon the character of the syllable. If the accent hits a long vowel or diphthong not immediately followed by a catch, the base will, generally speaking, coincide with the normal level, or lie somewhat below it. If the long vowel or diphthong be immediately followed by an unaccented syllable, the base is apt to strike this unaccented syllable at an interval of about a third below the level. If the vowel or diphthong be immediately followed by a catch, the fall in pitch will be rapidly checked, and the whole extent of the fall limited to perhaps not more than a semitone. As soon, however, as the catch is removed (as often happens on the addition to the form of certain grammatical elements), the fall runs through its usual gamut. The words

k'wede'i his name
*yewe'ida*ᵋ when he returned
*yewe'i*ᵋ he returned

will serve to illustrate the character of the falling pitch.



The pronunciation of the diphthongs is now easily understood A shortened diphthong (*a'i, a'$^{i\varepsilon}$*) sounds to an American ear like an indivisible entity, very much like *ai* and *au* in HIGH and HOW; a diphthong with falling pitch (*a'i*) is naturally apt to be heard as two distinct vowels, so that one is easily led to write *naga'-ida$^{\varepsilon}$* instead of *naga'ida$^{\varepsilon}$* WHEN HE SAID; a diphthong with rising pitch (*aī*) is heard either as a pure diphthong or as two distinct vowels, according to the speed of utterance or the accidents of perception. All these interpretations, however, are merely matters of perception by an American ear and have in themselves no objective value. It would be quite misleading, for instance, to treat Takelma diphthongs as "pure" and "impure," no regard being had to pitch, for such a classification is merely a secondary consequence of the accentual phenomena we have just considered.

One other point in regard to the diphthongs should be noted. It is important to distinguish between organic diphthongs, in which each element of the diphthong has a distinct radical or etymological value, and secondary diphthongs, arising from an *i, u, l, m,* or *n* with prefixed inorganic *a*. The secondary diphthongs (*ai, au, al, am, an*), being etymologically single vowels or semivowels, are always unitonal in character; they can have the raised, not the rising accent. Contrast the inorganic *au* of

bila'uk' (=**bilw'k'*,[1] not **bilaũk'*) he jumped; cf. *bilwa'$^{\varepsilon}$s* JUMPER

with the organic *au* of

*gaya*ũ he ate it; cf. *gayawa'$^{\varepsilon}$n* I ate it

Contrast similarly the inorganic *an* of

k!ema'nk' (=**k!emn'k'*, not **k!emañk'*) he made it; cf. *k!emna'$^{\varepsilon}$s* maker

with the organic *am* of

*dasmaya*m̃ he smiled; cf. *dasmaya*ma'$^{\varepsilon}$*n* I smiled

Phonetically such secondary diphthongs are hardly different from shortened organic diphthongs; etymologically and, in consequence, in morphologic treatment, the line of difference is sharply drawn.

[1] Non-existent or theoretically reconstructed forms are indicated by a prefixed asterisk.

It was said that any particular syllable, if accented, necessarily receives a definite pitch-inflection. If it is furthermore pointed out that distinct words and forms may differ merely in the character of the accent, and that definite grammatical forms are associated with definite accentual forms, it becomes evident that pitch-accent has a not unimportant bearing on morphology. Examples of words differing only in the pitch-accent are:

se'^{e}l black paint, writing; *sēl* kingfisher
lā'^{a}p`* leaves; (1) *lāp` he carried it on his back, (2) *lāp`* become (so and so)!
sā'^{a}t`* his discharge of wind; *sāt` mash it!
wilī'^{i} his house; *wilī* house, for instance, in *dak`wilī* on top of the house
he'^{e}l song; *hēl* sing it!

Indeed, neither vowel-quantity, accent, nor the catch can be considered negligible factors in Takelma phonology, as shown by the following:

waya` knife
wayā'^{a} his knife
waya'^{ɛ} he sleeps
wayān he put him to sleep
k!wā^{ɛ}ya`* (=*k!wāt$^{ɛ}$a`) just grass

It is impossible to give any simple rule for the determination of the proper accent of all words. What has been ascertained in regard to the accent of certain forms or types of words in large part seems to be of a grammatic, not purely phonetic, character, and hence will most naturally receive treatment when the forms themselves are discussed. Here it will suffice to give as illustrations of the morphologic value of accent a few of the cases:

(1) Perhaps the most comprehensive generalization that can be made in regard to the employment of accents is that a catch requires the falling pitch-accent on an immediately preceding stressed syllable, as comes out most clearly in forms where the catch has been secondarily removed. Some of the forms affected are:

(*a*) The first person singular subject third person object aorist of the transitive verb, as in:

t!omoma'^{ɛ}n I kill him
t!omoma'nda^{ɛ} as I killed him

(*b*) The third person aorist of all intransitive verbs that take the catch as the characteristic element of this person and tense, as in:

ya'ᵉ he went
*yā'ᵃda*ᵉ when he went

(*c*) The second person singular possessive of nouns whose ending for this person and number is *-ᵉt'*, as in:

t!ī'ⁱᵉt' your husband
ela'ᵉt' your tongue

Contrast:

t!īt'k' my husband
ela't'k' my tongue

There are but few exceptions to this rule. A certain not very numerous class of transitive verbs, that will later occupy us in the treatment of the verb, show a long vowel with rising pitch before a catch in the first person singular subject third person object aorist, as in:

k!emēᵉn I make it
dīt!ügūᵉn I wear it

The very isolation of these forms argues powerfully for the general correctness of the rule.

(2) The first person singular subject third person object future, and the third person aorist passive always follow the accent of 1*a*:

dōᵘma'n I shall kill him
t!omoma'n he was killed

Contrast:

xōᵘma'n he dried it

Like *k!emēᵉn* in accent we have also:

k!emēn it was made

(3) The first person singular possessive of nouns whose ending for that person and number is *-t'k'* shows a raised or rising pitch, according to whether the accented vowel is short or long (or diphthongal):

k'wedeīt'k' my name
p!ãnt'k' my liver
t!ibagwa'nt'k' my pancreas

Contrast:

k'wede'i his name
p!a'ᵃnt' his liver
t!ibagwa'n his pancreas

(4) The verbal suffix *-ald-* takes the falling pitch:

sgelewa'ldaᵉn I shouted to him
sgelewa'lt' he shouted to him

Contrast:

gwaľt' wind

Many more such rules could be given, but these will suffice at present to show what is meant by the "fixity" of certain types of accent in morphological classes.

This fixity of accent seems to require a slight qualification. A tendency is observable to end up a sentence with the raised pitch, so that a syllable normally provided with a falling pitch-accent may sometimes, though by no means always, assume a raised accent, if it is the last syllable of the sentence. The most probable explanation of this phenomenon is that the voice of a Takelma speaker seeks its rest in a rise, not, as is the habit in English as spoken in America, in a fall.[1]

Vocalic Processes (§§ 6–11)

§ 6. VOWEL HIATUS

There is never in Takelma the slightest tendency to avoid the coming together of two vowels by elision of one of the vowels or contraction of the two. So carefully, indeed, is each vowel kept intact that the hiatus is frequently strengthened by the insertion of a catch. If the words *ya'p!a* MAN and *a'nīᵉ* NOT, for instance, should come together in that order in the course of the sentence, the two *a-* vowels would not coalesce into one long vowel, but would be separated by an inorganic (i. e., not morphologically essential) catch *yap!a ᵉa'nīᵉ*. The same thing happens when two verbal prefixes, the first ending in and the second beginning with a vowel, come together. Thus:

de- in front
xāᵃ- between, in two
+ī- with hand

generally appear as:

deᵉī-
xāᵃᵉī-

respectively. The deictic element *-a'*, used to emphasize preceding

[1] Those familiar with Indogermanic phonology will have noticed that my use of the symbols (˗), (˜), and (≃) has been largely determined by the method adopted in linguistic works for the representation of the syllabic pitch-accents of Lithuanian; the main departures being the use of the (˗) on short as well as on long vowels and the assignment of a different meaning to the (˜).

nouns, pronouns, and adverbs, is regularly separated from a preceding vowel by the catch:

ma'ᵋa` but you, you truly
bō̃ᵘᵋa` nowadays indeed

If a diphthong in *i* or *u* precedes a catch followed by a vowel, the *i* or *u* often appears as *y* or *w* after the catch:

k!wã̃ᵋya`* just grass (= *k!wāĩ*+*-a`)
ā'ᵋya`* just they (= *āi-* they + *-a`)
haᵋwī- (= *ha-u-* under + *ī-* with hand)

If the second of two syntactically closely connected words begins with a semivowel (*w* or *y*) and the first ends in a vowel, a catch is generally heard to separate the two, in other words the semivowel is treated as a vowel. Examples are:

ge'ᵋ wõ̃k`* (= *ge'* + *wõ̃k`) there he arrived
beᵉᵋ wāᵃdī'ⁱ (= *beᵉ* + *wāᵃdī'ⁱ*) day its-body = all day long
geᵋ yā'ᵃhi (= *ge* + *yā'ᵃhi*) just there indeed

Such cases are of course not to be confounded with examples like:

meᵋwõ̃k` HE ARRIVED HERE, and
meᵋyèũ COME HERE!

in which the catch is organic, being an integral part of the adverb *meᵋ* HITHER; contrast:

meᵋgini'ᵋk` HE CAME HERE, with
ge gini'ᵋk` HE WENT THERE.

The same phonetic rule applies even more commonly when the first element is a noun or verb prefix:

haᵋ*winī'ⁱda* inside of him; but ha*beᵉbini`* at noon
deᵋ*wiliwia'ᵘᵋ* they shouted; but de*xebe'ᵋn* he said so
abaiᵋ*waᵋyewēnhi* he returned inside with him; but abai*gini'ᵋk`* he went inside
wiᵋ*wã̃* my younger brother; but wi*ha`m* my father

It is interesting to note that the catch is generally found also when the first element ends in *l*, *m*, or *n*, these consonants, as has been already seen, being closely allied to the semivowels in phonetic treatment:

alᵋ*wāᵃdidẽ* to my body; but als·*ōᵘma`l* to the mountain
alᵋ*yowo'ᵋ* he looked; but al*xī'ⁱk`* he saw him
*bāᵃ*geˈlᵋ*yo* he lay belly up; but gel*k!iyi'ᵋk`* he turned to face him
gwenᵋ*wat`geits·!ik`wa* his (head) lay next to it; but gwen*liwila'ᵘᵋ* he looked back
yiwinᵋ wô'k`iᵋ* (= *yiwin* speech + *wô'k`iᵋ without) without speech

It goes without saying that the catch separates elements ending in *l*, *m*, or *n* from such as begin with a vowel:

s·in$^{\varepsilon}$īlats!agi'$^{\varepsilon}$n I touch his nose
al$^{\varepsilon}$īt'baga't'bak' he struck them

§ 7. DISSIMILATION OF *u*

A diphthong in *u* tends, by an easily understood dissimilatory process, to drop the *u* before a labial suffix (*-gw-*, *-p'*, *-ba$^{\varepsilon}$*). Thus we have:

wahawaxī^{i}gwa'$^{\varepsilon}$n I rot with it, for **xiugwa'$^{\varepsilon}$n*

Compare:

hawaxi'$^{u\varepsilon}$ he rots
wahawaxiwigwa'n I shall rot with it

Similarly:

bilīk'^{w} he jumped having it, for **biliūk'^{w}* (stem *biliu-*)
wilīk'^{w} he proceeded with it, for **wiliūk'^{w}* (stem *wiliu-*)

Observe that, while the diphthong *iu* is monophthongized, the original quantity is kept, *i* being compensatively lengthened to *ī^{i}*. In the various forms of the verb *yèu-* RETURN, such dissimilation, wherever possible, regularly takes place:

yēk'^{w} he returned with it, for **yèūk'^{w}* (= *yèū- gw- k'*)
me$^{\varepsilon}$yēp' come back! (pl.), but sing. *me$^{\varepsilon}$yèū*
ye$^{\varepsilon}$ba'$^{\varepsilon}$ let us return! for **yèuba'$^{\varepsilon}$*

It is interesting to note how this *u-* dissimilation is directly responsible for a number of homonyms:

yēk'^{w} bite him!
(al)yēp' show it to him!

A similar dissimilation of an *-u-* after a long vowel has in all probability taken place in the reduplicating verb *lā^{a}liwi'$^{\varepsilon}$n* I CALL HIM BY NAME (*le$^{\varepsilon}$la'usi* HE CALLS ME BY NAME) from * *lāuliwi'$^{\varepsilon}$n* (* *lèula'usi*).

§ 8. I- UMLAUT

Probably the most far-reaching phonetic law touching the Takelma vowels is an assimilatory process that can be appropriately termed "*i-* umlaut." Briefly stated, the process is a regressive assimilation of a non-radical *-a-* to an *-i-*, caused by an *-i-* (*-ī^{i}-*) in an immediately following suffixed syllable, whether the *-i-* causing the umlaut is an original *-i-*, or itself umlauted from an original *-a-*; the *-i-* of the

pronominal endings *-bi-* THEE, *-si-* HE TO ME, *-xi-* HE ME, fails to cause umlaut, nor does the law operate when the *-i-* is immediately preceded by an inorganic *h*. The following forms will make the applicability of the rule somewhat clearer:

wak!ayayini'ᵉn I caused him to grow with it (but *k!ayayana'ᵉn* I caused him to grow, with preserved *-a-*, because of following *-a'ᵉn*, not *-i'ᵉn*)
wak!eyeya'nxi he caused me to grow with it
wak!ayaya'nxbiᵉn I caused thee to grow with it
īyulu'yiliᵉn I rub it (from *-yaliᵉn*)
īyulu'yalhi he rubs it

It should be carefully noted that this *i-* umlaut never operates on a radical or stem-vowel, a fact that incidentally proves helpful at times in determining how much of a phonetic complex belongs to the stem, and how much is to be considered as belonging to the grammatical apparatus following the stem. In:

wāᵃgiwi'ᵉn I brought it to him (from *-awi'ᵉn;* cf. *wāᵃga'sbiᵉn* I brought it to you)

the *-a-* following the *g* is shown to be not a part of the aoristic stem *wāᵃg-* by the *i-* umlaut that it may undergo; on the other hand, the corresponding future shows an un-umlauted *-a-*:

wagawi'n I shall bring it to him

so that the future stem must be set down as *waga-*, as is confirmed by certain other considerations.

It would take us too far afield to enumerate all the possible cases in which *i-* umlaut takes place; nevertheless, it is a phenomenon of such frequent recurrence that some of the more common possibilities should be listed, if only for purposes of further illustration:

(1) It is caused by the aoristic verb suffix *-īⁱ-* denoting position:

s·as·inī he stands (cf. *s·a's·ant'āᵃ* he will stand)
t!obigī he lies as if dead (cf. future *t!obaga'sdāᵃ*)

(2) By an element *-i-* characteristic of certain nouns, that is added to the absolute form of the noun before the possessive pronominal endings:

būᵘbini't'k' my arm (cf. *būᵘba'n* arm)
t'ga'lt'gilixdek' my belly (for * *t'galt'gali-*)

(3) By the common verbal "instrumental" vowel *-i-*, which, for one reason or another, replaces the normal pre-pronominal element

-a-, and often serves to give the verb an instrumental force. This instrumental *-i-* may work its influence on a great number of preceding elements containing *-a-*, among which are:

(*a*) The *-a-* that regularly replaces the stem-vowel in the second member of a duplicated verb:

al$^{\varepsilon}$īt'baga't'bigi$^{\varepsilon}$n I beat him (cf. *-t'baga't'bak'* he beat him)
ts·!ele'ts·!ili$^{\varepsilon}$n I rattle it (cf. *ts·!ele'ts·!alhi* he rattles it)
īsmili'smili$^{\varepsilon}$n I swing it (cf. *īsmi'lsmal* swing it!)

(*b*) The causative element *-an-*:

wap!ā^{a}gini'$^{\varepsilon}$n I cause him to swim with it (cf. *p!ā^{a}gana'$^{\varepsilon}$n* I cause him to swim)

See above:

wak!ayayini'$^{\varepsilon}$n I cause him to grow

(*c*) The element *-an-* added to transitive stems to express the idea of FOR, IN BEHALF OF:

wat!omomini'$^{\varepsilon}$n I kill it for him with it (cf. *t!omomana'$^{\varepsilon}$n* I kill it for him)

(*d*) The pronominal element *-am-*, first personal plural object:

alxī'^{i}ximi$^{\varepsilon}$s one who sees us (cf. *alxī'^{i}xam* he sees us)

4. By the suffixed local element *-dī^{i}* ON TOP OF added to the demonstrative pronoun *ga* THAT to form a general local postposition:

gidī^{i} on top of it, over (so and so)

Compare the similarly formed:

gada'k' above
gada'l among

and others.

5. By the pronominal element *-ig-* (*-ik'*), first personal plural subject intransitive:

t!omõxinik' we kill each other (cf. *t!omõxa$^{\varepsilon}$n* they kill each other)
dãxinigam we shall find each other (cf. *dãxan$^{\varepsilon}$t'* they will find each other)

This list might be greatly extended if desired, and indeed numerous other examples will meet us in the morphology. Examples of a double and treble *i-* umlaut are:

lohō^{u}ninini'$^{\varepsilon}$n I caused him to die (i. e., killed him) for him (cf. *lohō^{u}nana'nhi* he killed him for him)
īk!ūmininini'nk' he will fix it for him (compare *īk!ū^{u}ma'n* he fixed it)

The semivowel corresponding to *i*, namely *y*, is also capable, under analogous circumstances, of causing the *i*- umlaut of a preceding non-radical *a*. Examples are:

daxoyo'xiya^{ɛ}n (=*-xaya^{ɛ}n*) I scare them around; *daxoyo'xi* (=*-xiy* =*-xay*) he scares them around
al^{ɛ}īt'ge'it'giyak'^{w} (=*-t'gay-*) rolled up
alhūyū'hī^{i}x (=*-hiyx* =*-hayx*) he used to hunt
saniya' (=*sanaya'*) to fight him
dõ^{u}mk'wiya (=*-k'waya*) to kill him; and numerous other infinitives in *-k'wiya* (=*-k'waya*)

§ 9. K- SOUNDS PRECEDED BY U- VOWELS

An *u*- vowel (*o*, *u*, *ü*, and diphthongs in *-u*) immediately preceding a *k*- sound (i. e., *g*, *k'*, *k!*, *x*) introduces after the latter a parasitic *-w-*, which, when itself followed by a vowel, unites with the *k*- sound to form a consonant-cluster (*gw*, *k'w*, *k!w*, *xw*), but appears, when standing after a (word or syllabic) final *k'*, as a voiceless *-'^{w}*. The introduction of the excrescent *w* simply means, of course, that the labial rounding of the *u*- vowel lingers on after the articulation of the *k*- sound, a phonetic tendency encouraged by the fact that the production of the guttural consonant does not, as in the labials and dentals, necessitate a readjustment of the lips. A few examples will illustrate the phonetic process:

gelgulugwa'^{ɛ}n I desire it
gelgulu'k'^{w} he desires it (contrast *gelgula'k'* he desired it, without the labial affection of the *-k'* because of the replacement of the *-u-* by an *-a-*)
güxwī'^{i} his heart
dü^{u}gwi't'gwa her dress
dũk'^{w} woman's garment
yõ^{u}k!wā^{a} his bones

As also in the upper Chinook dialects (Wasco, Wishram), where exactly the same process occurs, the *w*- infection is often very slight, and particularly before *u*- vowels the *-w-* is, if not entirely absent, at least barely audible:

yok!^{w}õya'^{ɛ}n I know it
yo'k'yan I shall know it

In one very common word the catch seems to be treated as a *k*- sound in reference to a preceding *u* when itself followed by an *-ī-*:

s·u^{ɛ}wilī he sits; but
s·u'^{ɛ}alt'ā^{a} he will sit

The first form was, for some reason or other, often heard, perhaps misheard, as *s·i^{s}ulẕ*.

§ 10. INORGANIC *a*

It frequently happens in the formation of words that a vowel present in some other form of the stem will drop out, or, more accurately expressed, has never been inserted. Consonant-combinations sometimes then result which are either quite impossible in Takelma phonetics, or at any rate are limited in their occurrence to certain grammatical forms, so that the introduction of an "inorganic" *-a-*, serving to limber up the consonant-cluster, as it were, becomes necessary. Ordinarily this *-a-* is inserted after the first consonant; in certain cases, after the two consonants forming the cluster. The theoretical future of *gini'k'de^{e}* I GO SOMEWHERE should be, for example, **gink'de^{e};* but, instead of this somewhat difficult form, we really get *gina'k'de^{e}*. That the *-a'-* is here really inorganic, and not a characteristic of the future stem, as was at first believed, is clearly shown by the imperative *gi'nk'* (all imperatives are formed from the future stem). Similarly:

k!iya'k'de^{e} I shall go, come; aorist, *k!iyi'k'de^{e}*

alxik!a'lhik' (=theoretical **alxik!lik'*) he kept looking at him; aorist first person *alxik!ilhi^{s}n* I keep looking at him

k!ema'n make it! (=theoretical **k!emn*); cf. *k!emna'n* I shall make it

bai^{s}iye^{e}wa'n drive out sickness!; aorist, *-yewēn* he drove out sickness

sgela'ut'e^{e} I shall shout (=theoretic **sgelwt'e^{e}*); aorist second person, *sgelewa't'* you shouted

As an example of an inorganic *-a-* following a consonantic cluster may be given:

wisma't'e^{e} I shall move (stem *wism-*); aorist, *wits·!imt'e^{s}* I moved[1]

The exact nature of the processes involved in the various forms given will be better understood when stem-formation is discussed. Here

[1] Such an *-a* may stand as an absolute final; e. g., *ba-!masga'* START IN SINGING! (stem *masg-*), aorist third person, *-mats!a'k'*. The form *masga'* well illustrates the inherent difficulty of delimiting the range of a phonetic law without comparative or older historical material to aid in determining what is due to regular phonetic development, and what is formed on the analogy of other forms. The final cluster *-sk'* does occur in Takelma; e. g., *dink!a'sk'* (long object) lay stretched out; so that a phonetic irregularity must exist in one of the two forms. Either we should have **ma'sk'*, or else **dink!asa'k'* or **dink!asga'* is to be expected. On closer examination it is found that the *-k'* in forms like *dink!a'sk'* is a grammatical element added on to the future stem *dink!as-*; whereas in *masga'* the *-g-* belongs in all probability to the stem, and is no added suffix; at least is not felt as such. It seems evident, then, that the quasi-mechanical juxtaposition of grammatical elements does not entirely follow the same phonetic lines as organic sound-complexes.

it will suffice to say that there are three distinct sorts of inorganic or secondary *a*- vowels: the regular *inorganic a* first illustrated above, inserted between two consonants that would theoretically form a cluster; the post-consonantal *constant a* of certain stems (such as *wism-* above) that would otherwise end in more or less impracticable consonant clusters (this *-a* appears as *-i* under circumstances to be discussed below); and a *connecting a* employed to join consonantal suffixes to preceding consonants (such suffixes are generally directly added to preceding vowels or diphthongs). The varying treatment accorded these different secondary *a* vowels will become clearer in the morphology.

§ 11. SIMPLIFICATION OF DOUBLE DIPHTHONGS

By a double diphthong is meant a syllable consisting of an ordinary diphthong (long or short) followed by a semivowel (*y*, *w*) or by *l*, *m*, or *n*. Such double diphthongs are, for instance, *aiw*, *āiw*, *auy*, *āuy*, *ain*, *āin*, *alw*, *ā^{a}lw;* those with initial short vowel, like *ain*, have, like the long diphthongs (e. g. *ā^{a}n*), a quantitative value of 3 morae, while those with initial long vowel, like *āin*, have a quantitative value of 4 morae and may be termed over-long diphthongs. Double diphthongs may theoretically arise when, for some reason or other, a connecting or inorganic *a* fails to lighten the heavy syllable by reducing it to two (see particularly § 65 for a well-defined class of such cases). Double diphthongs, however, are nearly always avoided in Takelma; there is evidently a rhythmic feeling here brought into play, a dislike of heavy syllables containing three qualitatively distinct sonantic elements.

In consequence of this, double diphthongs are regularly simplified by the loss of either the second or third element of the diphthong; in other words, they are quantitatively reduced by one mora (the simple double diphthongs now have a value of 2 morae, the over-long diphthongs 3 morae like ordinary long diphthongs), while qualitivetatly they now involve only two sonantic elements. An exception seems to be afforded by double diphthongs in *-uy* (e. g. *-auy*), which become dissyllabic by vocalizing the *y* to *i*, in other words, *-auy* becomes *-awi:*

*ts!*awi'*k*' he ran fast; cf. *ts!*a-uy*a'^{e}s* fast runner, *ts!*awaya'*t*' (aorist) you ran fast

*y*awi'*t*'*e*^{e} I shall talk; cf. *y*awaya'*t*' (aorist) you talked

The *-awi-* (=theoretic *-awy-*) of these forms is related to the *-away-* of the aorist as the *-ilw-* of *b*ilwa'$^{\varepsilon}$s JUMPER to the *-iliw-* of the aorist *b*iliwa't' YOU JUMPED.

Such double diphthongs as end in *-w* (e. g. *-aiw*, *-ā^{a}lw*) simply lose the *-w:*

gaī eat it! (=**gaīw*); *gaīk*' he ate it (=**gaīwk*'); compare *ga-iwa'n* I shall eat it

Other examples of this loss of *w* are given in § 18, 2. All other double diphthongs are simplified by the loss of the second vowel (*i*, *u*) or consonant (*l*, *m*, *n*); a glottal catch, if present after the second vowel or consonant, is always preserved in the simplified form of the double diphthong. Examples of simplified double diphthongs with initial short vowel are:

*gelhewe'h*a$^{\varepsilon}$n (=**-hau*$^{\varepsilon}$n) I think; compare *gelhewe'h*au he thinks
*imi'h*a$^{\varepsilon}$n (=**-ham*$^{\varepsilon}$n) I sent him; compare *imi'h*am he sent him
mo'lo$^{\varepsilon}$*m*a$^{\varepsilon}$n (=**mal*$^{\varepsilon}$n) I stir it up; *mo'l*$^{\varepsilon}$*m*an (=**-m*aln) I shall stir it up; compare parallel forms with connecting *a*: *mo'lo*$^{\varepsilon}$-*m*ala$^{\varepsilon}$n, *mo'l*$^{\varepsilon}$*m*alan, and third person aorist *mo'lo*$^{\varepsilon}$*m*al
*mā^{a}nm*a'$^{\varepsilon}$n (=**-man*$^{\varepsilon}$n) I count them; compare *damā^{a}nmini'*$^{\varepsilon}$*n* (umlauted from *-man-i'*$^{\varepsilon}$*n*) I counted them up
*k!em*x*a't'e*^{e} (=**k!emnxa't'e*^{e}) I shall make; compare *k!emna'*$^{\varepsilon}$*s* maker and *k!ema'n* make it! (with inorganic *a* because accent is not thrown forward)

Examples of simplified over-long diphthongs are:

dā^{a}ldi'n (=**dāildi'n*) I shall go to him for food; compare *dāīt'e*^{e} I shall go for food
eī t'gēlxī^{i} (=**t'gèīlxī*^{i}) wagon (literally, rolling canoe); compare *t'ge*^{e}*ya'lx* it rolls
dat!agā$^{\varepsilon}$n (=**t!agāī*$^{\varepsilon}$n) I build a fire; compare *dat!agā'ī* he builds a fire
k!emē$^{\varepsilon}$n (=**k!emèī*$^{\varepsilon}$n) I make it; compare *k!emèī* he makes it
oyō$^{\varepsilon}$n (=**oyōn*$^{\varepsilon}$n) I give it; compare third person *oyōn* he gives it

In the inferential, less frequently passive participle and imperative, forms of the verb, double diphthongs, except those ending in *w*, generally fail to be simplified. If coming immediately before the inferential *-k*'- the double diphthong is preserved, for what reason is not evident (perhaps by analogy to other non-aorist forms in which the last element of the double diphthong belongs to the following syllable):

*ts·!*aīm*k‘* (but also *ts·!*ayàm *k‘*) he hid it; compare *ts·!*a-ima′*n* I shall hide it

oīn*k‘* he gave it; compare oina′*n* I shall give it

If the inferential *-k‘-* does not immediately follow, an inorganic *a* seems to be regularly inserted between the second and third elements of the diphthong:

*gelts·!*aya′m*xamk‘na*^{ɛ} since he concealed it from us

Examples of other than inferential forms with unsimplified double diphthong are:

*ts·!*aīm*hak‘*^{w}hidden

oīn give it! (yet *ts·!*aya′m hide it! with inorganic *a*)

Consonants (§§ 12–24)

§ 12. *System of Consonants*

The Takelma consonant system is represented in the following table:

	Aspirated tenuis.	Voiceless media.	Fortis.	Spirant.		Lateral.	Nasal.
				v.	unv.		
Labial	*p*	*b*	*p!*	*w*	*-‘w*		*m*
Dental	*t‘*	*d*	*t!*			*l*	*n*
Sibilant			*ts!, ts·!*		*s, s·*		
Palatal				*y*		(*l̄*)	
Guttural	*k‘*	*g*	*k!*		*x*		
Faucal			*ɛ*		*h*		

The spirants have been divided into two groups, those on the left-hand side of the column (labeled *v.*) being voiced, while those on the right-hand side (labeled *unv.*) are unvoiced. The rarely occurring palatal lateral *l̄* (see § 2, footnote) is also voiceless. Every one of the consonants tabulated may occur initially, except the voiceless labial spirant *-‘w*, which occurs only with *k* at the end of a syllable. Properly speaking, *-k‘w* should be considered the syllabic final of the labialized guttural series (*k‘w, gw, k!w*); a consideration of the consonant-clusters allowed in Takelma shows that these labialized consonants must be looked upon as phonetic units. The catch (*ɛ*) as organic consonant is found only medially and finally; the *l̄* only

initially. In regard to the pronunciation of the various consonants, *w*, *s*, *y*, *h*, *l*, *m*, and *n* do not differ materially from the corresponding sounds in English.

The first two series of stops—tenuis (*p'*, *t'*, *k'*) and media (*b*, *d*, *g*)—do not exactly correspond to the surd and sonant stops of English or French. The aspirated tenues are, as their name implies, voiceless stops whose release is accompanied by an appreciable expulsion of breath. The voiceless mediae are also stops without voiced articulation; but they differ from the true tenues in the absence of aspiration and in the considerably weaker stress of articulation. Inasmuch as our English mediae combine sonancy with comparatively weak stress of articulation, while the tenues are at the same time unvoiced and pronounced with decided stress, it is apparent that a series of consonants which, like the Takelma voiceless mediae, combine weak stress with lack of voice will tend to be perceived by an American ear sometimes (particularly when initial) as surds, at other times (particularly between vowels) as sonants. On the other hand, the aspirated tenues will be regularly heard as ordinary surd-stops, so that an untrained American ear is apt to combine an uncalled-for differentiation with a disturbing lack of differentiation. While the Takelma tenuis and media are to a large extent morphologically equivalent consonants with manner of articulation determined by certain largely mechanical rules of position, yet in a considerable number of cases (notably as initials) they are to be rigidly kept apart etymologically. Words and stems which differ only in regard to the weak or strong stress and the absence or presence of aspiration of a stop, can be found in great number:

dā^{a}n- ear; *t'ā^{a}n* squirrel
bō^u now; *p'ō^u-* to blow
ga that; *k'a* what
dī^i- on top; *t'ī^i-* to drift
bō^{u}d- to pull out hair; *p'ō^{u}d-* to mix
dā^{a}g- to build fire; *dā^{a}g-* to find; *t'ā^{a}g-*to cry
gai- to eat; *k'ai-* thing, what [1]

[1] These two series of stops are not at all peculiar to Takelma. As far as could be ascertained, the same division is found also in the neighboring Chasta Costa, a good example of how a fundamental method of phonetic attack may be uniformly spread over an area in which far-reaching phonetic differences of detail are found and morphologic traits vary widely. The same series of stops are found also in Yana, in northern California. Farther to the east the two series are apparently found, besides a series of true sonant stops, in Ponca and Omaha (J. O. Dorsey's *p*, *t*, *k*, and *d*, *ȷ*, *ǧ*). The Iroquois also (as could be tested by an opportunity to hear Mohawk) are, as regards the manner of articulating the two series, absolutely in accord with the Takelma. A more accurate phonetic knowledge of other languages would doubtless show a wide distribution in America of the voiceless media.

The fortes (*p!*, *t!*, *k!*, *ts!* [=*ts·!*], and ˢ, which has been put in the same series because of its intimate phonetic and morphologic relation to the other consonants) are pronounced with the characteristic snatched or crackly effect (more or less decided stress of articulation of voiceless stop followed by explosion and momentary hiatus) prevalent on the Pacific coast. From the point of view of Takelma, *p!*, *t!*, and *k!* are in a way equivalent to p^{ε}, t^{ε}, and k^{ε}, respectively, or rather to b^{ε}, d^{ε}, and g^{ε}, for the fortes can never be aspirated. In some cases it was found difficult to tell whether a fortis, or a voiceless stop followed by a glottal stricture, was really heard:

yap!a`* and *yapˢa` man
gā'p!ini`* and *gā'pˢini` two

In fact, a final tenuis + a catch inserted, as between vowels, to prevent phonetic amalgamation, regularly become, at least as far as acoustic effect is concerned, the homorganic fortis:

āk!a`* he indeed (=*āk` he + deictic ˢ*a`*; cf. *ma'ˢa`* you indeed)
sāk!eīt`* you shot him (= *sāk` he shot him + (ˢ)*eīt`* you are)
māp!a`* just you [pl.] (= *māp` you [pl.] + ˢ*a`*)

Nevertheless, p^{ε}, t^{ε}, k^{ε} are by no means phonetically identical with *p!*, *t!*, *k!*; in Yana, for instance, the two series are etymologically, as well as phonetically, distinct. One difference between the two may be the greater stress of articulation that has been often held to be the main characteristic of the fortes, but another factor, at least as far as Takelma (also Yana) is concerned, is probably of greater moment. This has regard to the duration of the glottal closure. In the case of p^{ε}, t^{ε}, and k^{ε} the glottis is closed immediately upon release of the stop-contact for *p*, *t*, and *k*. In the case of *p!*, *t!*, and *k!* the glottis is closed just before or simultaneously with the moment of consonant contact, is held closed during the full extent of the consonant articulation, and is not opened until *after* the consonant release; the fortis *p!*, e. g., may be symbolically represented as ˢp^{ε} (or ˢb^{ε}, better as $\overset{\varepsilon}{b}{}^{\varepsilon}$, i. e., a labial unaspirated stop immersed in a glottal catch). As the glottis is closed throughout the whole extent of the fortis articulation, no breath can escape through it; hence a fortis consonant is necessarily unaspirated. This explains why fortes are so apt to be misheard as voiceless mediae or even voiced mediae rather than as aspirated tenues (*p!*, e. g., will be often misheard as *b* rather than *p*). The cracked effect of the fortes, sometimes quite incorrectly

referred to as a click, is due to the sudden opening of the closed chamber formed between the closed glottis and the point of consonant contact (compare the sound produced by the sudden withdrawal of a stopper from a closed bottle); the hiatus generally heard between a fortis and a following vowel is simply the interval of time elapsing between the consonant release and the release of the glottal closure.[1] That the fortis consonant really does involve an initial glottal catch is abundantly illustrated in the author's manuscript material by such writings as:

dülū'^{ɛ}t!ili^{ɛ}n = *dülū't!ili^{ɛ}n* I stuff it
dü'l^{ɛ}t!ilin = *dü'lt!ilin* I shall stuff it
leme'^{ɛ}k!ia-uda^{ɛ} = *leme'k!ia-uda^{ɛ}* as they go off

Many facts of a phonetic and morphological character will meet us later on that serve to confirm the correctness of the phonetic analysis given (see §13, end; also §§ 30,4; 40,6; 40,13a, p. 113; 40,13b). Here it is enough to point out that *p!*, *t!*, *k!*, *ts·!* are etymologically related to *b*, *d*, *g*, *s·* as are ^{iɛ}, ^{uɛ}, ^{ɛ}l, ^{ɛ}m, ^{ɛ}n to *i*, *u*, *l*, *m*, *n*.

There is no tenuis or media affricative (*ts—dz; ts·, tc—dz·, dj*) corresponding in Takelma to the fortis *ts!*, *ts·!*, though it seems possible that it originally existed but developed to *x* (cf. *yegwēxi* they bite me [upper Takelma *yegwe'tci*]; *ts·!i'xi* dog [from original **ts·!its·i*[2]]). Morphologically *ts!*, *ts·!* stand in the same relation to *s*, *s·* that *p!*, *t!*, and *k!* stand in to *b*, *d*, *g*. For example,

Aorist stems:

t!omom- kill, *p!ügüg-* start (war, basket), *k!olol-* dig—are related to their corresponding

Future stems:

dō^{u}m-, *bü^{ü}g-*, *gō^{u}l-*,—as are the

Aorist stems:

ts·!adad- mash, *ts·!elel-* paint—to their corresponding

Future stems:

s·ā^{a}d-, *s·e^{e}l-*

Of the other consonants, only *x*, *-ˋ^{w}*, and *s*, *s·* call for remark. *x* is equivalent to the *ch* of German DACH, though generally pronounced further forward (*ẋ*). It frequently has a *w* tinge, even when no *u*-vowel or diphthong precedes, particularly before *i*; examples are *hā'px^{w}i* CHILD and *hax^{w}iya*ˋ (ordinarily *haxiya*ˋ) IN THE WATER. *-kˋ^{w}*,

[1] Doctor Goddard writes me that an examination of tracings made on the Rousselot machine leads to substantially the same phonetic interpretation of the fortes as has been given above.

[2] See Notes on the Takelma Indians of Southwestern Oregon, *American Anthropologist*, n. s., IX, 257.

in which combination alone, as we have seen, -'^{w} occurs, is the aspirated tenuis *k'* followed by a voiceless labial continuant approximately equivalent to the *wh* of English WHICH, more nearly to the sound made in blowing out a candle. *s* is the ordinary English *s* as in SELL; while *s·* is employed to represent a sibilant about midway in place of articulation between *s* and *c* (= *sh* in English SHELL), the fortes *ts!* and *ts·!* corresponding, respectively, in place of articulation to *s* and *s·*. The two sounds *s* and *s·* have been put together, as it is hardly probable that they represent morphologically distinct sounds, but seem rather to be the limits of a normal range of variation (both *sal-* WITH FOOT and *s·al-*, e. g., were heard). The only distinction in use that can be made out is that *s* occurs more frequently before and after consonants and after $^{\varepsilon}$:

s·a's·ant'e^{e} I shall stand
ogu's·i he gave it to me, but *ogu'sbi* he gave it to you
lō^{u}s·ī'^{i} his plaything 110.6
īlasgi'n I shall touch it
le^{e}psi' feathers
yōls steel-head salmon
ha-uhana'$^{\varepsilon}$s it stopped (raining)

§ 13. *Final Consonants*

By a "final" consonant will always be meant one that stands at the end of a syllable, whether the syllable be the last in the word or not. Such a final position may be taken only by the aspirated tenues, the voiceless spirants, the catch, the liquid (*l*), and the nasals, not by the voiceless mediae, fortes, and semivowels (*y* and *w*); *h* occurs as a final only very rarely:

la'h excrement
lohlaha'nk' he always caused them to die

A final semivowel unites with the preceding vowel to form a diphthong:

gayaū he ate it (cf. *gayawa'$^{\varepsilon}$n* I ate it)
gāī grow! (cf. *gā^{a}ya'$^{\varepsilon}$t'* he will grow)

A final voiceless media always turns into the corresponding aspirated surd; so that in the various forms of one stem a constant alternation between the two manners of articulation is brought about:

se^{e}ba'$^{\varepsilon}$n I roasted it; *sēp'* he roasted it
xebe'$^{\varepsilon}$n he did it; *xēp'ga$^{\varepsilon}$* I did it
xuduma'lda$^{\varepsilon}$n I whistle to him; *xuduma'lt'*, *xuduma'lt'gwa* he whistles to him
t!ayaga'$^{\varepsilon}$n I found it; *t!aya'k'* he found it, *dāk'na$^{\varepsilon}$* since he found it

A final fortis also becomes the corresponding aspirated surd (*-ts!* becoming *-ᵉs*), but with a preceding catch by way of compensation for the loss of the fortis character of the consonant. This process is readily understood by a reference to the phonetic analysis of the fortes given above (§ 12). Final *p!*, for instance, really *ᵉb(ᵉ)*, is treated in absolutely parallel fashion to a final *b;* the final media implied in the *p!* must become an aspirated surd (this means, of course, that the glottal closure is released at the same time as the stop, not subsequently, as in the ordinary fortis), but the glottal attack of the *ᵉb* still remains. Examples are:

wasgā'p!in I shall make it tight; *wasgā'ᵉp'* make it tight
k'ap!a'k'ap'naᵉn I throw them under (fire, earth); future, *k'aᵉp'-k'a'p'nan*
bāᵃxō't!an I shall win over him; *bāᵃxō'ᵉt'* win over him! *bāᵃxō'ᵉt'gaᵉ* I won over him
alxī'k!in I shall see him; *alxī'ᵉk'* see him! (contrast *alxī'ⁱgiᵉn* I saw him; *alxī'ⁱk'* he saw him)
haᵉwīha'nts!in I shall cause it to stop (raining); *haᵉwīha'nᵉs* make it stop raining!
nō'ts!at'gwan next door to each other; *nō'ᵘᵉs·* next door
haᵉīmi'ts!adan t!eimi'ᵉs six times 100; *haᵉīmi'ᵉs* six

Consonant Combinations (§§ 14–17)

§ 14. GENERAL REMARKS

Not all consonant combinations are allowable in Takelma, a certain limited number of possibilities occurring initially, while a larger number occur as finals. Medial combinations, as we shall see (§17), are simply combinations of syllabic final consonants or permissible consonant combinations and syllabic initial consonants or permissible consonant combinations.

§ 15. INITIAL COMBINATIONS

If, as seems necessary, we regard *gw* as a single labialized consonant, the general rule obtains that no combinations of three or more consonants can stand at the beginning of a word or syllable. The following table shows all the initial combinations of two consonants possible in Takelma, the first members of the various combinations being disposed in vertical columns and the second members, with which the first combine, being given in horizontal lines. Examples fill the spaces thus mapped out. Inasmuch as the mediae and fortes,

the liquid, nasals, semivowels, and *h* never appear, or with very few exceptions, as the first members of initial combinations, it was not considered necessary to provide for them in the horizontal row. Similarly the tenues and fortes never occur as second members of initial combinations. A dash denotes non-occurrence.

	p'	*t'*	*k'*	*s*	*x*
b	—	*t'bāag-* hit	—	*sbīn* beaver	?
d	—	—	—	*s·dō'i s·dagwa-* put on style	*xdeīt'* flute
g	—	*t'geib-* roll	—	*sgi'si* coyote	—
gw	—	*t'gwa'* thunder	—	*sgwini'* raccoon	—
s, *x*	—	—	—	—	—
l	—	—	—	?	*xliwi* war feathers
m	—	*t'mila'px* smooth	—	*sma-im-* smile	?
n	—	—	—	*s·nā* mamma!	*xni'k'* acorn mush
y	—	—	—	—	—
w	—	*t'wap!at'wap'-* blink	[*k' w ā a q w-* awaken]	*swat'g-* pursue	?

It will be noticed that only *t'* (*p'* and *k'* were given mainly for contrast) and the two voiceless spirants *s* and *x* combine with following consonants (*k'w-* is not to be analyzed into *k'+w*, but is to be regarded as a single consonant, as also *gw-* and *k!w-*, both of which frequently occur as initials); furthermore that *s*, *x*, and *y* never combine with preceding consonants. The general law of initial combination is thus found to be: tenuis (*t'*) or voiceless spirant (*s*, *x*) + media (*b*, *d*, *g*) or voiced continuant (*l*, *m*, *n*, *w*).[1] Of the combinations above tabulated, only *t'b-* *t'g-*, *sb-*, *sg-*, and perhaps *sgw-* and *sw-*, can be considered as at all common, *t'm-*, *t'w-*, *sd-*, *sn-*, *xd-*, *xl-*, and *xn-* being very rare. *sl-*, *sb-*, *xm-*, and *xw-* have not been found, but the analogy of *xl-* for the first, and of *sb-*, *sm-*, and *sw-* for the others, make it barely possible that they exist, though rarely; there may, however, be a distinct feeling against the combination *x*+labial (*b*, *m*, *w*).

Only two cases have been found of fortis or media+consonant:

t!wep!e't!wapx they fly about without lighting; future *dwep'-dwa'pxdā*[a]

[1] This may possibly serve to explain why the affricative *ts·* (to correspond to *ts·!*) is not found in Takelma.

§ 16. FINAL COMBINATIONS

Final consonant combinations are limited in possibility of occurrence by the fact that only aspirated tenues and voiceless spirants (*p'*, *t'*, *k'*, *k'ʷ*, *s*, and *x*) can stand as absolute finals after other consonants. The following table will give examples of all final combinations of two or three consonants that have been discovered in the available material.

	p'	*t'*	*k'*	*l*	*m*	*n*	*s*	*x*
p'	——	*ēĭt'p'* ye are	—	*bē̆lp'* swan	——	*s·a's·anp'* stand! (pl.)	——	——
t'	——	——	—	*sgelewa'lt'* he shouted to him	*ts!elela'mt'* he paints it	*p!ā'ant'* his liver	——	——
k'	*xē̆p'k'* he did it	*p'ima't'k'* my salmon	—	*a'lk'* silver-side salmon	*xa'mk'* grizzly bear	*dōʷma'nk'* he will kill him	*mīla'sk'* he loved her	*k'wā'ᵃˢxk'* he's awake
k'ʷ	——	——	—	*t'gwe'lk'ʷ* rat	?	*yānk'ʷ* he took it along	——	——
p'k'	——	——	—	*s·uˣᵉalp'k'* he sat	——	*se'nsanp'k'* he whooped	——	——
t'k'	——	——	—	*dōʷma'lt'k'* my testicles	*xāala'mt'k'* my urine	*bilga'nt'k'* my breast	——	——
s	*la'ps* blanket	——	—	*bīls* moss	*gāms* blind	*p!e'ns* squirrel	——	——
	t'geya'px round	——	—	*t'geᵉya'lx* it rolls	*ya'mx* grease	*bānx* hunger	——	——
xk'	*des·īpxk'* it closed	——	—	*gü'lk!alxk'* it was blazing	*dats·!ā'mxk'* it hurt	*ūqwa'nxk'* he drank	——	——
px	——	——	—	*sgīᵉlpx* warm your back!	——	?	——	——

No examples of *-mk'ʷ* and *-npx* have been found, but the analogy of *-lpx* makes the existence of the latter of these almost certain (*l* and *n* are throughout parallel in treatment); the former (because of the double labial; cf. the absence of *-mp'*) is much less probable, despite the analogy of *-lk'ʷ* and *-nk'ʷ*. It is possible also that *-lsk'*, *-msk'*, and *-nsk'* exist, though their occurrence can hardly be frequent. Of final clusters of four consonants *-nt'p'k'* has been found in *s·a's·ant'p'k'* HE STOOD, but there can be small doubt that the *-t-* is merely a dental tenuis glide inserted in passing from the dental nasal to the labial tenuis; compare the morphologically analogous form *se'nsanp'k'* HE WHOOPED. However, the combinations *-lpxk'* and *-npxk'* (if *-npx* exists), though not found in the available material, very probably ought to be listed, as they would naturally be the terminations of morphologically necessary forms (cf. *des·īpxk'*). Most, if not all, of

the preceding final combinations may furthermore be complicated by the addition of $^{\varepsilon}$, which is inserted before the first tenuis or voiceless spirant of the group, i. e., after a possible liquid or nasal:

ū'$^{i\varepsilon}$s·k' he laughed
k'o'$^{\varepsilon}$px dust, ashes.
ts·!u'n$^{\varepsilon}$s (deerskin) cap

As compared to the initial combinations, the table of final clusters seems to present a larger number of possibilities. It is significant, however, that only those that consist of *l*, *m*, or *n* + single consonant can ever be looked upon as integral portions of the stem (such as *xa'mk'* and *t'gwe'lk'^{w}*); while those that end in *-s* can always be suspected of containing either the verbal suffix *-s* (=*t*+*x*), or the noun and adjective forming element *-s*. All other combinations are the result of the addition of one or more grammatical elements to the stem (e. g., *s·u'$^{\varepsilon}$alp'k'* = *s·u$^{\varepsilon}$al-* + *p'* + *k'*). Further investigation shows that only two of the combinations, *-t'p'* (second personal plural subject aorist) and *-t'k'* (first personal singular possessive) are suffixal units; though *-t'p'* might be ultimately analyzed into *-t'* (second personal singular subject aorist) + *-p'*. It is interesting to note that these clusters are at the same time the only ones, except *t'gw-*, allowed initially, *t'b-* and *t'g-*. The constitution of the Takelma word-stem may thus be formulated as

tenuis (or voiceless spirant) + media (or voiced continuant) + vowel (or diphthong) + liquid or nasal + stop (fortis or media—tenuis),

any or all of the members of which skeleton may be absent except the vowel; *h* may also be found before the vowel.

§ 17. MEDIAL COMBINATIONS

A medial combination consists simply of a syllabically final combination or single consonant + an initial combination or single consonant, so that theoretically a very large number of such medial combinations may occur. Quite a large number do indeed occur, yet there is no morphologic opportunity for many of them, such as *k'-l*, *np'-m*, and numerous others. Examples of medial combinations are:

t!omoma'n-ma$^{\varepsilon}$ when he was killed
hēlk'-na$^{\varepsilon}$ when he sang
dak'-t'gū'^{u}ba$^{\varepsilon}$n I put hollowed object (like hat) on top (as on head)

The occurrence of such clusters as *-k'n-* must not for a moment be interpreted as a contradiction of the non-occurrence of the same clusters initially or finally, as they are not, syllabically speaking, clusters at all. Had such combinations as, say, *-t'gn-* (in which *-t'* would be the final of one syllable and *gn-* the initial of the next) occurred, we should be justified in speaking of an inconsistency in the treatment of clusters; but the significant thing is, that such clusters are never found. A Takelma word can thus ordinarily be cut up into a definite number of syllables:

gaīk'na$^{\varepsilon}$ when he ate it (=*gaīk'-na$^{\varepsilon}$*)
yo'k'yan I shall know it (=*yo'k'-yan*)

but these syllables have only a phonetic, not necessarily a morphologic value (e. g., the morphologic division of the preceding forms is respectively *gai-k'-na$^{\varepsilon}$* and *yok'y-an*). The theory of syllabification implied by the phonetic structure of a Takelma word is therefore at complete variance with that found in the neighboring Athapascan dialects, in which the well-defined syllable has at least a relative morphologic value, the stem normally consisting of a distinct syllable in itself.

One important phonetic adjustment touching the medial combination of consonants should be noted. If the first syllable ends in a voiceless spirant or aspirated surd, the following syllable, as far as initial stops are concerned, will begin with a media (instead of aspirated surd) or aspirated surd + media; i. e., for a cluster of stops in medial position, the last can be a media only, while the others are aspirated surds. As also in the case of single consonants, this adjustment often brings about a variation in the manner of articulation of the final consonant in the cluster, according to whether its position in the word is medial or final. Thus we have:

xēp'ga$^{\varepsilon}$ I did it; *xēp'k'* he did it

Contrast, with constant *-k'-*:

alxī'$^{\varepsilon}$k'a$^{\varepsilon}$ I saw it; *alxī'$^{\varepsilon}$k'*[1] he saw it

the *-g-* of the first form and the *-k'* of the second being the same morphological element; the *-p'* of both forms is the syllabically final *b* of the stem *xe^{e}b-* DO, so that *xēp'ga$^{\varepsilon}$* stands for a theoretical **xēbk'a$^{\varepsilon}$*, a phonetically impossible form. Other examples are:

[1] This form is distinct from *alxī'$^{\varepsilon}$k'* LOOK AT IT!, quoted before. The imperative theoretically = **alxī'k!* the text form = **alxī'k!k'*.

ga-iwa't'ba$^{\varepsilon}$ ye shall eat it; *gayawa't'p'* ye ate it
di'n$^{\varepsilon}$xga$^{\varepsilon}$ I (as long object) was stretching out; *di'n$^{\varepsilon}$xk'* long object was stretching

Consonant Processes (§§ *18–24*)

§ 18. DROPPING OF FINAL CONSONANTS

There is a good deal to indicate that the comparatively limited number of possible final consonant-clusters is not a primary condition, but has been brought about by the dropping of a number of consonants that originally stood at the end.

1. The most important case is the loss of every final *-t'* that stood after a voiceless spirant or aspirated surd. Its former presence in such words can be safely inferred, either from morphologically parallel forms, or from other forms of the same stem where the phonetic conditions were such as to preserve the dental. Thus *gwidi'k'^{w}* HE THREW IT represents an older reduplicated **gwidi'k'^{w}t'* (=*gwid-i-gwd-*), as proven by the corresponding form for the first person, *gwidi'k'^{w}da$^{\varepsilon}$n* I THREW IT and *gwidi'k'dagwa* HE THREW HIM (122.13). Similarly all participles showing the bare verb stem are found to be phonetically such as not to permit of a final *-t'*, and are therefore historically identical with the other participial forms that show the *-t'*:

sãk' shooting (=**sãk't'*)
dõx gathering (=**dõxt'*)
ha-t!ũlk' following in path (=**t!ũlk't'*)
sana'p' fighting (=**sana'p't'*)

Compare:

yana't' going
loho't' dead
sebe't' roasting
dõmt' having killed
se'nsant' whooping
yi'lt' copulating with

The combinations *-k'^{w}t'k'* (*-k'^{w}t'g-*) and *-k'^{w}t'x-*, however, seem to lose, not the *-t'-*, but the *-k'^{w}-*, whereupon *-t'k'* (*-t'g-*) remains, while *-t'x-* regularly becomes *-s-* (see § 20, 2):

he$^{e\varepsilon}$gwida't'k' (=**gwida'k'^{w}t'-k'*, inferential of *gwidik'^{w}d-*) he lost it
he$^{e\varepsilon}$gwida't'ga$^{\varepsilon}$ (=**gwida'k'^{w}t'-ga$^{\varepsilon}$*) I lost it
xamgwidi'sgwide$^{\varepsilon}$ (=**gwidi'k'^{w}t'-x-gwi-* or possibly **gwidi'k'^{w}t'-gwi-*) I drown myself

2. Somewhat less transparent is the former existence of a *-w* after consonants. The following examples have been found in the material at disposal:

lāl she twined basket (=**lą̄lw*); cf. *lāᵃlwa'ᵉn* I twine it (that *-w* really belongs to the stem is shown by the forms *lāᵃwa'n* I shall twine it; *lèūxi* twine it for me!)
k!eł̃ basket bucket (=**k!eł̃w*); cf. *k!elwī'ⁱ* her bucket
k'ał̃ penis (=**k'ał̃w*); cf. *k'alwī'ⁱ* his penis.
sgelēlᵉ (=**sgelēlᵉw*) he keeps shouting; cf. *sgelewa't'* you shout, *sgelwa'lt'eᵉ* I shall keep shouting
alsgą̄lk'aᵉ (=**sgą̄lwk'aᵉ*) I turned my head to one side to look at him; cf. *alsgāᵃlwi'n* I shall turn my head to look at him
alsgelēlxi (=**sgelēlwxi*) he keeps turning his head to one side to look at me; cf. *alsgalāᵃliwi'ᵉn* I keep turning my head to look at him, future *alsgalwalwi'n*

This process, as further shown by cases like *gaī* EAT IT! (=**gaīw*), is really a special case of the simplification of double diphthongs (see § 11). Perhaps such "dissimilated" cases as *lāᵃ-* and *leᵉ-* (for *lāu-* and *lèu-*), see § 7, really belong here.

Other consonants have doubtless dropped off under similar conditions, but the internal evidence of such a phenomenon is not as satisfactory as in the two cases listed. The loss of a final *-n* is probable in such forms as *īhegwe'hak'ʷ* HE WORKS, cf. *īhegwe'hak'ʷnaᵉn* I WORK, and *īhegwe'hak'ʷnana'k'* WE WORK. Certain verb-forms would be satisfactorily explained as originally reduplicated like *gwidi'k'ʷ*, if we could suppose the loss of certain final consonants:

gini'ᵉk' he went somewheres (=?**gin-i'-ᵉk'n*)
gelgulu'k'ʷ he desired it (=?**-gul-u'-k'ʷl*)

In the case of these examples, however, such a loss of consonants is entirely hypothetical.[1]

§ 19. SIMPLIFICATION OF DOUBLE CONSONANTS

Morphologically doubled consonants occur very frequently in Takelma, but phonetically such theoretic doublings are simplified into single consonants; i. e., *k'+g* become *k'* or *g*, and correspondingly for other consonants. If one of the consonants is a fortis, the simplified result will be a fortis or aspirated surd with preceding catch, according to the phonetic circumstances of the case. If one of the

[1] Many of the doubtful cases would perhaps be cleared up if material were available from the upper dialect, as it shows final clusters that would not be tolerated in the dialect treated in this paper; e. g. *k·ü'ᵘna'ks·t'* RELATIVES (cf. Takelma *k'wīnaxdē* MY KIN).

k- consonants is labialized, the resulting *k*- sound preserves the labial affection. Examples of consonant simplification are:

mo'tˋekˋ my son-in-law (= *mo'tˋ-* + *-dekˋ*)
lãkˋwôkˋ he gave him to eat (= *lãg-* + *-kˋwôkˋ*)
dek!iya'kˋiᵉ if it goes on (= *dek!iya'g-* + *-kˋiᵉ*)
līⁱgwa'n I shall fetch them home (= *līⁱg-* + *-gwan*); cf. aorist *ligigwa'ᵉn*
dīⁱhila'k!wemẽᵉn I make him glad (= *hila'kˋʷ* glad + *k!emẽᵉn* I make him)

A good example of three *k*-sounds simplifying to one is:

ginãkˋwiᵉ if he comes (= *ginãg-kˋʷ-kˋiᵉ*)

The interrogative element *di* never unites with the *-tˋ* of a second person singular aorist, but each dental preserves its individuality, a light *ĭ* being inserted to keep the two apart:

xemela'tˋĭdi do you wish to eat? (= *xemelaˋtˋ* + *di*)

The operation of various phonetic processes of simplification often brings about a considerable number of homonymous forms. One example will serve for many. From the verb-stem *sãᵃg-* SHOOT are derived:

1. Imperative *sãkˋ* shoot it!
2. Potential *sãkˋ* he can, might shoot it
3. Participle *sãkˋ* shooting (= **sãkˋtˋ*)
4. Inferential *sãkˋ* so he shot it (= **sãg-kˋ*)

The corresponding forms of the stem *yana-* GO will bring home the fact that we are here really dealing with morphologically distinct formations:

1. *yanaˋ* go!
2. *yana'ᵉ* he would have gone
3. *yanaˋtˋ* going
4. *yanaˋkˋ* so he went

Another simplification of consonant groups may be mentioned here. When standing immediately after a stop, an organic, etymologically significant *h* loses its individuality as such and unites with a preceding media or aspirated tenuis to form an aspirated tenuis, with a preceding fortis to form an aspirated tenuis preceded by a glottal catch (in the latter case the fortis, being a syllabic final, cannot preserve its original form). Thus, for the *k*- series, *g* or *kˋ* + *h* becomes *kˋ*, *k!* (or *ᵉkˋ*) + *h* becomes *ᵉkˋ*; *gw* or *kˋʷ* + *h* becomes *kˋw*, *k!w* (or *ᵉkˋʷ*) + *h* becomes *ᵉkˋw*. Under suitable conditions of accent

(see § 23) the contraction product k' or $k'w$ may itself become g or gw, so that all trace of the original h seems to be lost. Examples for the k- sounds are:

t'gunūk'iᵋ (=*t'gunūk'* + quotative *-hiᵋ*) it became warm, it is said

naganā'ᵃk'iᵋ (=*naganā'ᵃᵋk'* + quotative *-hiᵋ*; see § 22) he always said, it is said

gwen-he'k'wāᵃgw- (=reduplicated *he'gw-hāᵃgw-*) relate; with accent thrown forward *gwen-hegwā'ᵃgw-an-i-* (=*hegw-hā'ᵃgw-*); compare, with preserved *h*, *gwen-hegwe'hagw-an-i* tell to

s·o'woᵋk'ôp' (=*s·o'woᵋk'-hap'*=**s·o'wok!-hap'*) he jumps (*ô*=*wa*; see § 9) he jumps; compare *s·owo'k!anaᵋn* I cause him to jump

Similarly, *d* or *t'* + *h* becomes *t'*, *t!* (or *ᵋt'*) + *h* becomes *ᵋt'*; *b* or *p'* + *h* becomes *p'*, *p!* (or *ᵋp'*) + *h* becomes *ᵋp'*:

gana't'i (=*gana't'* + emphatic *-hi*) of just that sort

yo't'i (=*yo't'* being + emphatic *-hi*) alive; compare plural *yot'i'*hi

heᵋᵋsgū'ᵘᵋt'ôk'ʷ (=*sgū'ᵘt!-hak'ʷ*) cut away; compare *heᵋᵋsgō'ᵘt!an* I shall cut it away

s· and *x* also generally contract with *h* to *s·* and *x*, e. g.: *nōᵘs·i'ᵋ* (=*nōᵘᵋs· + -hiᵋ*) next door, it is said.

§ 20. CONSONANTS BEFORE *x*

No stopped consonant or spirant may stand before *x*, except *p*. The dentals, guttural stops, and sibilants all simplify with *x* into single sounds; the fortes (including *ts!*) following the example of the ordinary stops and of the *s*, but leaving a trace in the vicarious *ᵋ*.

1. All *k*- sounds (*k'*, *g*, *k!*, *k'w*, *gw*, *k!w*) simply disappear before *x* without leaving any trace of their former existence, except in so far as *k!* and *k!w* remain as *ᵋ*; if *x* is followed by a vowel, the *w* of the labialized *k*-sounds unites with *x* to form *xw*:

alxī'ⁱxi he saw me (=*al-xī'ⁱg-xi*); cf. *alxī'ⁱgiᵋn* I saw him

k'wā'ᵃxdeᵋ I awoke (=*k'wā'ᵃgw-x-deᵋ*); cf. *īk'wā'ᵃgwiᵋn* I woke him up

gelgulu'xbiᵋn I like you (=*-gulu'gw-x-biᵋn*); cf. *-gulugwa'ᵋn* I like him

bāᵃdini'ᵋx (clouds) spread out on high (=*-dini'k!-x*); cf. *di'nik!aᵋn* I stretch it out

lūᵋxwa' to trap (=*lūk!ʷ-xa'*); cf. *lo'k!wan* I shall trap (deer)

yēxwink' (=*yēgw-xink'*) he will bite me; but *yēxdaᵋ* (=*yēgw-x-daᵋ*) you will bite me

2. *tx* always simplifies to *s*, *t!x* to *ᵉs*. Whether the combination *tx* really spontaneously developed into *s* it is naturally impossible to say; all that can safely be stated is that, where we should by morphologic analogy expect *t+x*, this combination as such never appears, but is replaced by *s*. Examples are numerous:

lebe'saᵉ she sews (=*lebe't-xaᵉ*); cf., for *-t'* of stem, *lebe't'* she sewed it, for suffix *-xaᵉ*, *lobo'xaᵉ* she pounds

sgelewa'lsi he shouts to me (=*sgelewa'ld-xi*); cf. *sgelewa'ldaᵉn* I shout to him

dāᵉībodoba'saᵉn they pull out each other's hair, with reduplicated stem *bodobad-+x-*

xāᵃt'be'ᵉᵉk't'bagams it is all tied together (=*-t'bagamt-x*); cf. *xāᵃt'bā'ᵃgamdaᵉn* I tie it together

hansgō'ᵘᵉs he cut across, lay over (road) (=*-sgō'ᵘt!-x*); cf. *hansgō'ᵘt!an* I shall cut it across

This change of *tx* to *s* is brought about constantly in the course of word-formation, and will be incidentally exemplified more than once in the morphology.

3. *sx* simplifies to *s*, *ts!x* (=*ᵉsx*) to *ᵉs*. Examples are:

yimi's·aᵉ he dreams (=*yimi's·-xaᵉ*, with suffix *-xaᵉ* as in *lobo'xaᵉ* above

ha-uhana'ᵉs it stopped (raining) (=**-hana'ᵉsx*, stem *hanats!-+ -x*)

§ 21. DISSIMILATION OF *n* TO *l* AND *m*

If a (generally) final *n* of a stem is immediately followed, or, less commonly, preceded by, a suffix containing a nasal, it dissimilates to *l*. The following examples have been found:

yalalana't' you lost it (cf. *yalnanada'ᵉ* you will lose it, with *n* preserved because it forms a consonant-cluster with *l*)

ha-gwāᵃl-a'm in the road (cf. *gwān* road)

Dīdala'm Grant's Pass (probably =over [*dī-*] the rocks [*da'n*])

xāᵃla'mt'kᵉ my urine; *xala'xamt'eᵉ* I urinate (cf. *xān* urine)

ba-is·in-xi'lik!wiᵉn I blow my nose, with *l* due to *-n* of prefix *s·in-* nose (cf. *xīn* mucus)

s·inp'i'lᵉs flat-nosed, alongside of *s·inp'i'nᵉs*

The possibility of a doublet in the last example shows that the prefix *s·in-* is not as thoroughly amalgamated with the rest of the word as are the suffixes; probably, also, the analogy of forms in *-p'inᵉs* with other prefixes not containing an *n* would tend to restore an anomalous-sounding *s·inp'i'lᵉs* to *-p'i'nᵉs*.

A suffixed -(*a*)*n* dissimilates to -(*a*)*l* because of a preceding *m* in the stem:

s·imi'l dew (cf. such nouns as *p!iyi'n* deer)
dak'-s·ō^{u}ma'l on the mountain (*s·om̃* mountain)
dō^{u}ma'lt'k' my testicles (*dō^{u}m* testicles)

With these compare:

dā^{a}-ts!ā^{a}wa'n by the ocean (*ts!āū* deep water)

In *xā^{a}-gulma'n* AMONG OAKS, the *l* immediately preceding the *m* seems to have prevented the dissimilation of the *-an* to *-al*.

It is practically certain that the *-am* of *hagwā^{a}la'm*, *Dīdala'm*, and *xā^{a}la'mt'k'* is at bottom phonetically as well as functionally identical with the suffix *-an* (*-al*), seen in *xā^{a}-gulma'n* (*gulu'm* OAK) and *dak'-s·ō^{u}ma'l*, and rests on a second dissimilation of the nasal lingual (*n*) of the suffix to a labial nasal (*m*), because of the lingual (*l*) of the stem. The history of a word like *hagwā^{a}la'm* is in that event as follows: An original **hagwā^{a}na'n* IN THE ROAD (stem *gwā^{a}n-* + nominal characteristic *-an*) becomes first **hagwā^{a}la'n* by the dissimilation of the first *n* because of the following *n*, then *hagwā^{a}la'm* by the dissimilation of this second *n* because of the preceding *l*. Similarly *Dīdala'm* and *xā^{a}la'mt'k'* would go back to **Dīdana'n* and **xā^{a}na'nt'k'* respectively; with the second form compare the reduplicated verb *xala'xam-* (=**xanaxan-*) URINATE. The probability of such a dissimilation of *n* to *m* is greatly strengthened by the fact that nearly all nouns with an evidently suffixal noun-forming element -(*a*)*m* have an *l* in the stem as compared to an -(*a*)*n* of nouns not so affected. Contrast:

-m	*-n*
*he^{e}*la'm board (cf. *dī^{i}he'liya* sleeping on wooden platform)	*dag*a'n turtle
*ge*la'm river	*wig*īn red lizard
*ts!e*la'm hail (cf. stem *ts!el-* rattle)	*p!iyi*'n deer (*-n* here as suffix shown by *p!iya'x* fawn)
*xi*la'm sick, ghost	*yūt!*u'n white duck (cf. *yut!-u'yidi^{ɛ}n* I eat it greedily)
ts·!ü'lm wart [1]	*yū'xg*an trout
*habi*la'm empty	*xd*ān eel (cf. *hā^{ɛ}-xdā'^{a}xdagwa^{ɛ}n* I throw something slippery far away)
*lap'*ām frog	*wō^{u}p!*un- eyebrows

[1] No other example of final *-lm* is known, so that this form was probably misheard for *ts·!ülü'm* (cf. *gulu'm* OAK).

*yu*lu'm eagle (also *yu*la'm is found)	*dā*^{a}- n- ear
*gu*lu'm oak	*bebe*'n rushes
k'ülūm fish (sp.?)	*ga'k!*an house ladder
*le*gem- kidney	*gwit!*in- wrist

It should not be concealed that a few words (such as *hülūn* OCEAN, *t!aga'm* LAKE, and *yuk!um-a-* BONES) do not seem to conform to the phonetic law implied by the table; but more exact knowledge of the etymology of these and similar words would doubtless show such disagreement to be but apparent. It is probable that in *delga'n-* BUTTOCKS, *bilga'n-* BREAST, and *do'lk'in-i-* ANUS, the *g*, (*k'*) immediately following upon the *l* prevented the expected dissimilation of *n* to *m;* in *le'k'wan-* ANUS the dissimilation was perhaps thwarted by a counter-tendency to dissimilate the two labials (*k'*^{w} and *m*) that would thus result. **yalan-an-* LOSE (tr.), dissimilated, as we have seen, to *yalal-an-*, fails to be further dissimilated to **yalal-am-* because, doubtless, there is a feeling against the obscuring of the phonetic form of the causative suffix *-an-*. The great probability of the existence of a dissimilatory tendency involving the change of *n* to *m* is clinched by the form *do'lk'im-i-* ANUS alongside of *do'lk'in-i-*.

A dissimilation of an original *l* to *n* (the reverse of the process first described), because of an *l* in the stem, is found in

yilī^{i}*nma'*^{ɛ}*n* I keep asking for it (= original **yilī*^{i}*lma'*^{ɛ}*n* [*l* inserted as repetition of stem *-l-* in iterative formation from *yilima'*^{ɛ}*n* I ask him])

le^{e}*ba'nxde*^{ɛ} I am carrying (object not specified) (= original **le*^{e}*-ba'lxde*^{ɛ}); cf. identical suffix *-al-x-*, e. g., *gayawa'lxde*^{ɛ} I eat.

In *ū*^{u}*gwa'nxde*^{ɛ} I DRINK (stem *ūgw-*), it hardly seems plausible that *-an-x-* is at all morphologically different from the *-al* (*-an*) *-x-* of these words, yet no satisfactory reason can be given here for a change of the *l* to *n*.

§ 22. CATCH DISSIMILATION

If to a form with a glottal catch in the last syllable is added a syntactic (conjunctive) element, itself containing a catch, the first catch is lost, but without involving a change in the character of the pitch-accent; the loss of the catch is frequently accompanied by a lengthening of the preceding vowel (or rather, in many cases, a restoration of the original length). This phonetic process finds its most frequent

application in the subordinate form of the third person aorist intransitive:

*yā'ᵃda*ᵉ when he went (cf. *ya'*ᵉ he went)
*ginī'ⁱk'da*ᵉ when he went to (cf. *gini'*ᵉ*k'* he went to)
*yawa'ida*ᵉ when he spoke (cf. *yawa'*ⁱᵉ he spoke)
*loho'ida*ᵉ when he died (cf. *loho'*ⁱᵉ he died)

The connectives *-hi*ᵉ IT IS SAID, and *-s·i*ᵉ BUT, AND are, in regard to this process, parallel to the *-da*ᵉ of the preceding forms:

*naga'ihi*ᵉ he said, it is said (cf. *naga'*ⁱᵉ he said)
*nō*ᵘ*s·i'*ᵉ but, so (he went) next door (cf. *nō'*ᵘᵉ*s·* next door).
*a'nīs·i*ᵉ but not (cf. *a'nī*ᵉ not)
ᵉ*ī's·is·i*ᵉ but no matter how (often) (cf. ᵉ*ī's·i*ᵉ even if)
*dalᵉwī'ⁱs·i*ᵉ but some (cf. *dalᵉwi'*ᵉ sometimes; *-wī'ⁱs·i*ᵉ is related to *-wi'*ᵉ as is *yā'ᵃda*ᵉ to *ya'*ᵉ)

§ 23. INFLUENCE OF PLACE AND KIND OF ACCENT ON MANNER OF ARTICULATION

The general phonetic rule may be laid down that an aspirated surd, when not immediately followed by another consonant, can, with comparatively few exceptions, be found as such medially only when the accent immediately precedes, provided that no consonant (except in certain circumstances *l*, *m*, and *n*) intervene between the accented vowel and the aspirated surd; under other conditions it appears as a media. This phonetic limitation naturally brings about a constant interchange between the aspirated surd and the corresponding media in morphologically identical elements. Thus we have as doublets *-da* and *-t'a*, third person possessive pronoun of certain nouns:

*bēmt'ā*ᵃ his stick
*se'ᵉlt'ā*ᵃ his writing
*wila'ut'ā*ᵃ his arrow
*ga'lt'ā*ᵃ his bow
*mo't'ā*ᵃ his son-in-law; but
da'gaxda his head

and numerous other nouns with *-x-*. This consonant in itself, as we have seen, demands a following media. Another pair of doublets is *-de*ᵉ and *-t'e*ᵉ, first person singular subject intransitive aorist (*-de*ᵉ and *-t'e*ᵉ to correspond in future):

*p'ele'xade*ᵉ I go to fight; *p'elxa't'e*ᵉ I shall go to war
*yānt'e*ᵉ I go; *yana't'e*ᵉ I shall go
*nagaīt'e*ᵉ I say; *na't'e*ᵉ I shall say

but:

wits·!īsmade^{e} I keep moving; future *wits·!e'smade^{e}* (contrast *wits·!iñt'e^{e}* I move and *wisma't'e^{e}* I shall move)

Other examples of interchange are:

sgō^{u}t'sga't'i he cut them to pieces; *sgō'^{u}t'sgidi^{e}n* I cut them to pieces

ts·!ümŭmt'a^{e}n I boil it, *s·ŭmt'an* I shall boil it (stem *s·ü^{u}m-t'a-*); *s·omoda'^{e}n* I boil it, *s·omda'n* I shall boil it (evidently related stem *s·om-d-*)

s·as·inīp'ik' we stand; *e^{e}bi'k'* we are

This phonetic rule must not be understood to mean that a media can never appear under the conditions given for the occurrence of a surd. The various grammatical elements involved are not all on one line. It seems necessary to assume that some contain a surd as the primary form of their consonant, while others contain an organic media. The more or less mechanical changes in manner of articulation, already treated of, have had the effect, however, of so inextricably interlocking the aspirated surds and mediae in medial and final positions that it becomes difficult to tell in many cases which manner of articulation should be considered the primary form of the consonant. Some of the medially occurring elements with primary tenuis are:

-t'a, third person possessive

-t'a, exclusive (as in *k!wa'lt'a* young, not old; younger one)

-t'e^{e}, first person intransitive aorist (future, *-t'e^{e}*)

-t'ek', first person singular possessive (as in *ga'lt'ek'* my bow)

Such elements show an aspirated consonant whether the preceding accent be rising or falling; e. g., *bēmt'a* like *he'^{e}lt'a*. Some of those with primary media are:

-da, third person possessive with preceding preposition (corresponding not to first person *-t'ek'*, *-dek'*, but to *-dē*)

-a'ld- and *-a'md-* indirect object

-da^{e}, subordinating element

This second set regularly keep the media whether the accent immediately precedes or not. The first two of these generally, if not always, require the preceding accent to be a falling one:

dak'wilī'^{i}da on his house

hat'gā'^{a}da in his country

xā^{a}sa'lda between his toes

xā^{a}ha'mda on his back

hawa'nda under him
sgelewa'lda$^{\epsilon}$n I shout to him
ts!elela'mda$^{\epsilon}$n I paint it

The third retains its primary character as media when the preceding verb form has the falling accent:

yewe'ida$^{\epsilon}$ when he returned
naga'-ida$^{\epsilon}$ when he said
baxa'mda$^{\epsilon}$ when he came
hele'lda$^{\epsilon}$ when he sang
xebe'nda$^{\epsilon}$ when he did it

On the other hand it appears as an aspirate tenuis when preceded by the rising accent:

lā^{a}lē̄t'a$^{\epsilon}$ as it became
s·as·inīt'a$^{\epsilon}$ when he stood

The rule first given, when interpreted in the light of a reconstructed historical development, would then mean that a rising accent preserved an immediately following aspirated surd (including always those cases in which *l*, *m*, or *n* intervened), and caused the change of a media to an aspirated surd; while a falling accent preserved a similarly situated media or aspirated surd in its original form. That the change in the phonetic circumstances defined of an original media to an aspirated surd is indeed conditioned by a preceding rising accent, is further indicated by such rather uncommon forms as *hadedīl-t'a* EVERYWHERES. Here the *-t'a* is evidently the same as the *-da* of *hawilī'^{i}da* IN HIS HOUSE, and the difference in manner of articulation is doubtless in direct relation to the difference of accent.

A modification of the general phonetic rule as first given remains to be mentioned. After *l*, *m*, or *n* an original aspirated tenuis retains its aspiration even if the accent falls on the preceding syllable but one; also after a short vowel preceded by *l*, *m*, or *n*, provided the accented vowel is short. Examples are:

alwe'k!alt'e^{e} I shall shine; *alwe'k!alp'igam* we shall shine; *alwe'-k!alk'wa* to shine
k'e'p'alt'e^{e} I shall be absent; *k'e'p'alk'wa* to be absent
wülü'hamt'e$^{\epsilon}$ I have menstrual courses for the first time
xala'xamt'e$^{\epsilon}$ I urinate
ī'mhamk'am he was sent off (*ī* is short, though close in quality; contrast *dõmhigam* he was killed)
īmi'hamk'wit' he sent himself

ts·!ümü'ts·!amt'a$^{\varepsilon}$n I always boil it (cf. *s·omoda'$^{\varepsilon}$n* I boil it)
s·a's.ant'e^{e} I shall stand; *s·a's·anp'igam* we shall stand; *s·a's·ank'wa* to stand
sene'sant'e$^{\varepsilon}$ I whoop; *se'nsant'e^{e}* I shall whoop
de$^{\varepsilon}$īwī'^{1}gank'wide$^{\varepsilon}$ I spread (it) out for myself
dasga'lit'ā^{a} (grain) will lie scattered about

With *-t'ā^{a}* and *-t'e$^{\varepsilon}$* above contrast the morphologically identical elements *-dā^{a}* and *-de$^{\varepsilon}$* of the following examples, in which the same accentual condition prevails but with a consonant other than *l*, *m*, or *n* preceding the affected dental:

t'ge'its·!idā^{a} (round object) will lie (there)
s·u'k'didā^{a} (string) will lie curled up
dak't'ek!e'xade$^{\varepsilon}$ I smoke (but future *-xa't'e^{e}* because of immediately preceding accent)

§ 24. INORGANIC *h*

Whenever two morphologically distinct vowels come together within the word (verbal prefixes and postposed particles, such as deictic *-a'*, are not considered as integral parts of the word), the first (accented) vowel is separated from the second by an "inorganic" *-h-*:

īt!ana'hi$^{\varepsilon}$n I hold it (aorist stem *t!ana-* + instrumental *-i-*), but future *īt!ani'n* (stem *t!an-*)
dak'-da-hala'hin I shall answer him (future stem *hala-* + instrumental *-i-*), but aorist *dak'-da-hā^{a}li'$^{\varepsilon}$n* (stem *hā^{a}l-*)

This inorganic *h* is found also immediately following an *m*, *n*, or *l* preceded by the accent:

wayãnha$^{\varepsilon}$n I put him to sleep (cf. same form with change of accent *wa-yā^{a}na'$^{\varepsilon}$n*)
dā$^{a\varepsilon}$agãnhi$^{\varepsilon}$n I used to hear about it (cf. *-agani'$^{\varepsilon}$n* I hear it)
liwīlhaut'e$^{\varepsilon}$ I kept looking (cf. *liwila'ut'e$^{\varepsilon}$* I looked)
xa-it'gī^{i}lt'ga'lhi he broke it in two (cf. with identical *-i-* suffix *xā^{a}salt'gwi'lt'gwili* he broke [somebody's arm] by stepping)
ī'mhamk'am he was sent off (also in aorist stem *īmīham-*)
wadõmhik' he killed him with it (stem *dō^{u}m-* + *-i-*)

It will be observed that the insertion of the *h* is practically the same phonetic phenomenon as the occurrence of an aspirated tenuis instead of a media after an accented vowel. The vowel, nasal, or liquid may appropriately enough be considered as having become aspirated under the influence of the accent, just as in the case of the mediae.

MORPHOLOGY (§§ 25–114)

§ 25. Introductory

Takelma conforms to the supposedly typical morphology of American languages in that it is thoroughly incorporating, both as regards the pronominal, and, though somewhat less evidently, the nominal object. If by "polysynthetic" is merely meant the introduction into the verb-complex of ideas generally expressed by independent elements (adverbs or the like), then Takelma is also polysynthetic, yet only moderately so as compared with such extreme examples of the type as Eskimo or Kwakiutl. The degree of intimacy with which the pronominal objective elements on the one hand, and the nominal objective and polysynthetic (instrumental and local) elements on the other, are combined with the internal verb-structure is decidedly different. The former combine as suffixes to form an indissoluble part, as it were, of the verb-form, the subjective elements of the transitive verb, though in themselves absolutely without independent existence, being secondarily attached to the stem already provided with its pronominal object. The latter vary in degree of independence; they are strung along as prefixes to the verb, but form no integral part of its structure, and may, as far as grammatical coherence is concerned, fall away entirely.

The polysynthetic character of the Takelma verb (and by discussing the verb we touch, as so frequently in America, upon the most vital element of the sentence) seems, then, a comparatively accidental, superimposed feature. To use the term "polysynthetic" as a catchword for the peculiar character of Takelma, as of many another American language, hardly hits the core of the matter. On the other hand, the term "incorporation," though generally of more value as a classificatory label than "polysynthesis," conveys information rather as to the treatment of a special, if important, set of concepts, than as to the general character of the process of form-building.

If we study the manner in which the stem unites in Takelma with derivative and grammatical elements to form the word, and the vocalic and consonantic changes that the stem itself undergoes for grammatical purposes, we shall hardly be able to find a tangible difference

in general method, however much the details may vary, between Takelma and languages that have been dignified by the name "inflectional." It is generally said, in defining inflection, that languages of the inflectional as contrasted with those of the agglutinative type make use of words of indivisible psychic value, in which the stem and the various grammatical elements have entirely lost their single individualities, but have "chemically" (!) coalesced into a single form-unit; in other words, the word is not a mere mosaic of phonetic materials, of which each is the necessary symbol of some special concept (stem) or logical category (grammatical element).

In support of the actual existence of this admired lack of a one-to-one correspondence between a grammatical category and its phonetic expression is often quoted the multiplicity of elements that serve to symbolize the same concept; e. g., Lat. *-ī, -ae, -a, -ēs, -ūs*, all indicate that the idea of a plurality of subjects is to be associated with the concrete idea given by the main body of the words to which they are attached. Furthermore, variability of the stem or base itself is frequently adduced as a proof of its lack of even a relative degree of individuality apart from the forms from which by analysis it has been abstracted; e. g., German *bind-, band-, bund-, bänd-, bünd-*. These two characteristics are very far indeed from constituting anything like a definition of inflection, but they are often referred to as peculiar to it, and hence may well serve us as approximate tests.

As regards the first test, we find that just such a multiplicity of phonetic symbols for the same, or approximately the same, concept, is characteristic of Takelma. The idea of possession of an object by a person or thing other than the speaker or person addressed is expressed by *-xa, -a, -da* (*-t'a*), *-t'*, or *-*, all of which are best rendered by HIS, HER, ITS, THEIR (the ideas of gender and number do not here enter as requiring grammatical expression). Similarly, the idea of the person speaking as subject of the action or state predicated by the main body of the verb is expressed by the various elements *-t'e^{ɛ}* (*-de^{ɛ}*), *-t'e^{e}* (*-de^{e}*), *-^{ɛ}n, -n, -k'a^{ɛ}* (*-ga^{ɛ}*), all of which are best rendered in English by "I." *-t'e^{ɛ}* is confined to the aorist of intransitive verbs; *-t'e^{e}* is future intransitive; *-^{ɛ}n* is aorist transitive; *-n* is future transitive; and *-k'a^{ɛ}* is used in all inferential forms, whether transitive or intransitive.

As for the second test, it soon appears that the Takelma stem may undergo even more far-reaching changes than we are accustomed to in German or Greek. As examples may serve:

dō^{u}m-, dü^{ü}m-, t!omom- (*t!omō^{u}-*), *t!ümü^{ü}-* kill
nā^{a}g-, ne^{e}-, naga-, nege- say to

The first form in each of these sets is the verb-stem, properly speaking, and is used in the formation of all but the aorist forms. The second is employed in non-aorist forms when the incorporated object of the verb is a first person singular, and in several derivative formations. The third is characteristic of the aorist. The fourth is used in the aorist under the same conditions as determine the use of the second form of the stem in other groups of forms. It needs but a moment's thought to bring home the general psychic identity of such stem-variability and the "ablaut" of many German verbs, or the Latin stem-variation in present and perfect:

frang- : *frēg-* break
da- : *ded-* give

If the typical verb (and, for that matter, noun) form of Takelma is thus found to be a firm phonetic and psychic unit, and to be characterized by some of the supposed earmarks of inflection, what is left but to frankly call the language "inflectional"? "Polysynthetic" and "incorporative" are not in the slightest degree terms that exclude such a designation, for they have reference rather to the detailed treatment of certain groups of concepts than to morphologic method. Everything depends on the point of view. If chief stress for purposes of classification is laid on the relative importance and fulness of the verb, Takelma is polysynthetic; if the criterion of classification be taken to be whether the verb takes the pronominal object within its structure or not, it is incorporating; if, finally, stress be laid on the general method of building up the word from smaller elements, it is inflective. Not that Takelma is in the least thereby relegated to a peculiar or in any way exceptional position. A more objective, unhampered study of languages spoken in various parts of the world will undoubtedly reveal a far wider prevalence than has been generally admitted of the inflectional type. The error, however, must not be made of taking such comparatively trivial characteristics as sex gender, or the presence of cases, as criteria of inflection. Inflection has reference to method, not to subject-matter.

Grammatical Processes (§§ 26–32)

§ 26. *General Remarks*

There are four processes employed in Takelma for purposes of grammatical modification and word-formation: affixation (pre-, in-, and suffixation), reduplication, vocalic change (ablaut), and consonant change (consonant ablaut). Pitch-accent is of grammatical importance, but is most probably a product of purely phonetic causes. Of the processes mentioned, suffixation is by far the most important, while the presence of infixation will have to be allowed or denied according to the definition given of it.

§ 27. *Prefixation*

Prefixation is either of the loose polysynthetic type already referred to, or of the more firmly knit inflective type. Loose prefixation is extremely common, nominal objects, instruments, and local ideas of one kind or another finding admittance into the word-complex, as we have seen, in this manner. Examples of such loose prefixation are:

gwen-ᵉa'l-yowoᵉ he looked back (*gwen-* in back; *al-* is difficult to define, but can perhaps be best described as indicative of action away from one's self, here with clear implication of sight directed outward; *yowo'ᵉ* he was, can be used as independent word)

s·in-ī-lats!agi'ᵉn I touched his nose (*s·in-* nose; *ī-* with hand; *lats!agi'ᵉn* I touched him, as independent word)

gwentᶜge`m* black necked (*gwen-* nape, neck; *tᶜge`m black)

The first example shows best the general character of loose prefixation. The prefixed elements *gwen-*, *al-*, *s·in-*, and *ī-* have no separate existence as such, yet in themselves directly convey, except perhaps *al-*, a larger, more definitely apperceived, share of meaning than falls to the lot of most purely grammatical elements. In dealing with such elements as these, we are indeed on the borderland between independent word and affix. The contrast between them and grammatical suffixes comes out strongest in the fact that they may be entirely omitted without destroying the reality of the rest of the word, while the attempt to extract any of the other elements leaves an unmeaning remainder. At the same time, the first example well illustrates the point that they are not so loosely attached but that they may entirely alter the concrete meaning of the word. Prefixation of the inflective type is very rare. There is only one

such prefix that occurs with considerable frequency, *wi-*, first person singular possessive of nouns of relationship:

wiha'm my father
hami'ᵉt' your father

§ 28. *Suffixation*

Suffixation is the normal method employed in building up actual forms of nouns and verbs from stems. The suffixes in themselves have for the most part very little individuality, some of them being hardly evident at all except to the minute linguistic analyst. The notions they convey are partly derivational of one kind or other. In the verb they express such ideas as those of position, reciprocal action, causation, frequentative action, reflexive action, spontaneous activity, action directed to some one, action done in behalf of some one. From the verb-stem such adjectival and nominal derivations as participles, infinitives, or abstract nouns of action, and nouns of agent are formed by suffixation. In the noun itself various suffixed elements appear whose concrete meaning is practically nil. Other suffixes are formal in the narrower sense of the word. They express pronominal elements for subject and object in the verb, for the possessor in the noun, modal elements in the verb. Thus a word like *t!omõxinik'* WE KILL ONE ANOTHER contains, besides the aorist stem *t!omõ-* (formed from *dõᵘm-*), the suffixed elements *-x-* (expressing general idea of relation between subject and object), *-in-* umlauted from *-an-* (element denoting reciprocal action [*-x-in-* = EACH OTHER, ONE ANOTHER]), and *-ik'* (first personal plural subject intransitive aorist). As an example of suffixation in the noun may be given *t!ibagwa'n-t'k'* MY PANCREAS. This form contains, besides the stem *t!iba-*, the suffixed elements *-gw-* (of no ascertainable concrete significance, but employed to form several body-part nouns; e. g., *t!iba'k'ʷ* PANCREAS 47.17), *-an-* (apparently meaningless in itself and appearing suffixed to many nouns when they are provided with possessive endings), and *-t'k'* (first personal singular possessive).

§ 29. *Infixation*

Infixation, or what superficially appears to be such, is found only in the formation of certain aorist stems and frequentatives. Thus the aorist stem *mats!ag-* (from *masg-* PUT) shows an intrusive or

infixed *-a-* between the *s* (strengthened to *ts!*) and *g* of the stem. Similarly the aorist stem *wits'!im-* (from *wism-* MOVE) shows an infixed *i*. Infixation in frequentative forms is illustrated by:

yonoina'^{e}n I always sing (aorist stem *yonon-*)
ts!ayaīk' he used to shoot them (cf. *ts!aya'k'* he shot them)

On examination it is found that the infixed element is invariably a repetition of part of the phonetic material given by the stem. Thus the infixed *-a-* and *-i-* of *mats!ag-* and *wits'!im-* are repetitions of the *-a-* and *-i-* of the stems *masg-* and *wism-;* the infixed *-i-* of *yonoin-* and *ts!ayaig-* are similarly repetitions of the *y-* of *yonon* and *-y-* of *ts!ayag-*. It seems advisable, therefore, to consider all cases of infixation rather as stem-amplifications related to reduplication. An infixed element may itself be augmented by a second infixation. Thus we have:

Verb stem	Aorist stem	Frequentative
hemg- take out	*hemeg-*	*heme^{e}mg-*
ts!a-im- hide	*ts!ayam-*	*ts!aya-im-*
masg- put	*mats!ag-*	*mats!ā^{a}sg-*
yawī- talk	*yawa-i-*	*yāwa-iy-*
baxm- come	*baxam-*	*baxā^{a}xm-*

§ 30. *Reduplication*

Reduplication is used in Takelma as a grammatical process with surprising frequency, probably as frequently as in the Salish languages. The most interesting point in connection with it is probably the fact that the reduplicating increment follows the base, never, as in most languages (Salish, Kwakiutl, Indo-Germanic), precedes it. It is, like the infixation spoken of above, employed partly in the formation of the aorist, partly to express frequentative or usitative action. Some nouns show reduplicated stems, though, as a process, reduplication is not nearly as important in the noun as in the verb. Some verbs, including a number that do not seem to imply a necessary repetitive action, are apparently never found in unreduplicated form. Four main types of reduplication, with various subtypes, occur:

1. A partial reduplication, consisting of the repetition of the vowel and final consonant of the stem:

aorist *helel-* (from *he^{e}l-* sing)
aorist *t!omom-* (from *dō^{u}m-* kill)

The reduplicated vowel is lengthened in certain forms, e. g., *hele^{e}l-*, *t!omō^{u}m-*.

1 *a*. A subtype of 1 is illustrated by such forms as exhibit an unreduplicated consonant after the reduplicated portion of the word, the second vowel in such cases being generally long

aorist *ts·!ümü^{ü}mt'a-* (from *s·ü^{ü}mt'a-* boil)
usitative aorist *t!ülü^{ü}lg-* (from verb stem *t!ü^{ü}lg-*, aorist *t!ülüg-* follow trail)
usitative aorist *ginī^{i}ng-* (from verb stem *ging-*, aorist *ginig-* go to; *ging-*, *ginig-* itself is probably reduplicated from *gin-*)

2. A complete reduplication, consisting of the repetition of the entire base with a change of the stem-vowel to *a:*

aorist *t!èut!au-* (from *t!èu-* play shinny)
aorist *bot'bad-* (from *bō^{u}d-* pull out one's hair)
aorist *bā^{a}- sal- xo(x)xag* come to a stand (pl.); aorist *sal-xog-ī^{i}-* stand (pl.)

3. A complete reduplication, as in 2, with the addition of a connecting vowel repeated from the vowel of the stem:

aorist *yuluyal-* (cf. verb stem *yulyal-* rub)
aorist frequentative *hogohag-* keep running (from *hō^{u}g-* run)
aorist frequentative *s·wilis·wal-* tear to pieces; verb stem *s·wil-s·wal-* (from aorist *s·wī^{i}ls·wal-* tear; verb stem *s·wī^{i}l-*)

If the stem ends in a fortis consonant, the reduplicating syllable regularly shows the corresponding media (or aspirated tenuis):

sgot!osgad- cut to pieces (from verb stem *sgō^{u}t!-*, aorist *sgō^{u}d-* cut)

3 *a*. A subgroup of 3 is formed by some verbs that leave out the *-a-* of the reduplicating syllable:

gwidik'^{w}d- throw (base *gwid-*)

4. An irregular reduplication, consisting of a repetition of the vowel of the stem followed by *-(ᵉ)a-* + the last and first (or third) consonants of the stem in that order:

frequentative aorist *t!omoamd-*, as though instead of **t!omo-t!am-;* cf. non-aorist *dō^{u}mdam-* (from aorist *t!omom-* kill)
frequentative aorist *k!eme^{e}amg-* (from *k!eme-n-* make; verb stem *k!em-n-*)
frequentative aorist *p!ūwū^{u}aug-*, as though instead of **p!ūwūp!aug-* (from aorist *p!ūwūk!-* name)

It will be noticed that verbs of this type of reduplication all begin with fortis consonants. The glottal catch is best considered a partial representative of the initial fortis; in cases like *k!eme^{e}amg-* an original

-k!am (i. e., *-ᵉgam*) may be conceived of as undergoing partial metathesis to *-ᵉamg*.

Other rarer reduplications or stem-amplifications occur, and will be treated in speaking of aorist formations and frequentatives.

§ 31. *Vowel-Ablaut*

Vowel-ablaut consists of the palatalization of non-palatal stem-vowels in certain forms. Only *o* and *a* (with corresponding long vowels and diphthongs) are affected; they become respectively *ü* (*ū*) and *e*. In sharp contradistinction to the *i-* umlaut of an original *a* to *i*, this ablaut affects only the radical portion of the word, and thus serves as a further criterion to identify the stem. Thus we have *weᵉga'si* HE BROUGHT IT TO ME (from stem *wāᵃg-*, as shown also by *wāᵃg-iwi'ᵉn* I BROUGHT IT TO HIM), but *wege'sink'* HE WILL BRING IT TO ME (from stem *waga-*, as shown also by *waga-wi'n* I'LL BRING IT TO HIM), both *i-* umlaut and stem-ablaut serving in these cases to help analyze out the stems. Vowel-ablaut occurs in the following cases:

1. Whenever the object of the transitive verb or subject of the passive is the first person singular:

mele'xi he told it to me 172.17, but *mala'xbiᵉn* I told it to you (162.6)
nege'sˑi he said to me 186.22, but *naga'sam* he said to us (178.12)
dūmxinaᵉ I shall be slain (192.11), but *dõmxbinaᵉ* you will be slain (178.15)
gel-lūhūigwa'si he avenges me, but *-lohoigwa'ᵉn* I avenge him (148.3)

Not infrequently vowel-ablaut in such cases is directly responsible for the existence of homonyms, as in *yeweyagwa'si* HE TALKS ABOUT ME (from *yaway*-talk), and *yeweyagwa'si* HE RETURNS WITH ME (from *yewei*-return).

2. With the passive participial endings *-akʻʷ*, *-ikʻʷ*:

waseᵉgiʼkʻʷ wherewith it is shot (from *sāᵃg-* shoot)
me'xakʻʷ having father (from *ma'xa* his father)
waᵉ-ī-dūxikʻʷdekʻ my gathered ones (= I have been gathering them) (from *dõᵘx-* gather)
dalᵉ-wa-pʻūʼt!ikʻʷ mixed with (from *pʻōt!-* mix) 178.5

3. In some verbs that have the peculiar intransitive-forming suffix *-x-*, by no means in all:

geyewa'lxdeᵉ I eat (136.15) (cf. *gayawa'ᵉn* I eat it 30.11)
leᵉbaʻnx he carries 178.6 (stem *lāᵃb-*)

dīdā^{a}t'be'$^{e\xi}$k't'bcg-ams (= *-amtx*) they had their hair tied on sides of head (from base *t'bā^{a}g-*) 142.17; cf. *-t'bā'^{a}gamda$^{\xi}$n* I tie his hair (27.1)

No satisfactory reason can be given why most verbs in *-x-* do not show this stem-palatalization. It is quite possible that its occurrence is confined to a restricted number of such verbs; at any rate, there is some limitation in its employment, which the material at hand has not been found extensive enough to define.

4. In nouns ending in *-x-ap'* (*-s-ap'* = *-t-x-ap'*), probably derived from such verbs in *-x-* as were referred to under 3:

xā^{a}le'^{e}sap' belt (cf. *xā^{a}lā'^{a}da$^{\xi}$n* I put it about my waist)
halū'$^{u\xi}$xôp' (= *-x^{w}ap'*) shirt (cf. *halō'$^{u\xi}$k'* she put on [her dress])

5. In verbs provided with the suffix *-xa-*, which serves to relieve transitive verbs of the necessity of expressing the object:

lū'$^{\xi}$xwagwadinin (= *lūk!-xa-*) I'll trap for him (stem *lōk!^{w}-*)
īlū'pxagwank' she shall pound with (stone pestle) (cf. *lobo'p'* she pounds them)
k!edeīxade$^{\xi}$ I was out picking (cf. *k!adā$^{\xi}$n* I pick them, *k!adāī* he picks them)
ts!eye'mxade$^{\xi}$ I hide things (cf. *ts!ayama'$^{\xi}$n* I hide it)

6. In reflexive verbs ending in *-gwi-* or *-k'wa-* (*-gwa-*):

k!ēt'gwī^{i}p' pick them for yourself! (stem *k!ā^{a}d-*)
alts!eyēk'wit' he washed himself with it (cf. *alts!ayãp'* he washed his own face)
īlets!ēk'wide$^{\xi}$ I touch myself (cf. *īlats!agi'$^{\xi}$n* I touch him)
k!edèīk'wa$^{\xi}$n I pick them for myself (aorist stem *k!adāi-*)
alnū'^{u}k'wa he painted his own face (stem *nō^{u}gw-*)

Yet many, perhaps most, reflexive verbs fail to show the palatal ablaut:

p!agãnk'wit' he bathed himself
t'gwā^{a}xa'nt'gwide^{e} I shall tattoo myself (but *lū'^{u}gwant'gwide$^{\xi}$* I trap deer for myself)
xā^{a}-sgō'^{u}t'gwide$^{\xi}$ I cut myself
īgaxaga'xgwa$^{\xi}$n I scratch myself

We have here the same difficulty as in 3. Evidently some factor or factors enter into the use of the ablaut that it has not been founp possible to determine.

7. Other cases undoubtedly occur, but there are not enough of them in the material gathered to allow of the setting up of further groups. All that can be done with those cases that do not fall

within the first six groups is to list them as miscellaneous cases. Such are:

gwel-leīsde^{e} I shall be lame (cf. *gwel-la'is k!emna'n* I shall make him lame

le^{e}psi' wing (if derived, as seems probable, from stem *lā^{a}b-* carry)

t!emeya'nwia^{uɛ} people go along to see her married 178.1 (cf. *t!amayana'^{ɛ}n* I take her somewheres to get her married [148.5])

Palatal ablaut, it should be noted, does not affect the *-a-* of the second member of reduplicated verbs:

t'gā^{a}lt'ga'l it bounced from her 140.8

t'ge^{e}ltg'a'lsi it bounced from me

The connecting vowel, however, of verbs reduplicated according to the third type always follows the stem-vowel:

dak'da-hele'halxade^{e} I am accustomed to answer (stem *-hā^{a}l-*)

It is difficult to find a very tangible psychic connection between the various cases that require the use of the palatal ablaut, nor is there the slightest indication that a phonetic cause lies at the bottom of the phenomenon. If we disregard the first group of cases, we shall find that they have this in common, they are all or nearly all intransitives derived from transitives by means of certain voice-forming elements (*-x-*, *-xa-*, *-gwi-*, *-k'wa-*), or else nominal passives or derivatives of such intransitives (*-ak'^{w}*, *-x-ap'*); *-k'wa-*, it is true, takes transitive pronominal forms; but it is logically intransitive in character in that it indicates action in reference to something belonging to the subject. The only trait that can be found in common to the first group and the remaining is that the action may be looked upon as self-centered; just as, e. g., a form in *-xa-* denotes that the (logically) transitive action is not conceived of as directed toward some definite outside object, but is held within the sphere of the person of central interest (the subject), so, also, in a form with incorporated first person singular object, the action may be readily conceived of as taking place within the sphere of the person of central interest from the point of view of the speaker. No difficulty will be found in making this interpretation fit the other cases, though it is not conversely true that all forms implying self-centered action undergo palatalization. The explanation offered may be considered too vague to be convincing; but no better can be offered. In any event, the palatal ablaut will be explained as the symbolic expression of some general mental attitude rather than of a clear-cut grammatical concept.

Besides these regular interchanges of non-palatal and palatalized vowels, there are a number of cases of words showing differing vowels, but whose genetic relationship seems evident. These vocalic variations have not been brought into the form of a rule; the number of examples is small and the process apparently touches rather the lexical material than the morphology. Variations of this character between *a* and *e* are:

gala-b-a'ᵉn I twist it; *pɬīⁱ-wa-gele-g-i'ᵉn* I drill for fire with it (88.12), *dīⁱᵉal-gelegal-a'mdaᵉn* I tie his hair up into top-knot (172.2)

dāᵃ-dala-g-a'mdaᵉn I pierce his ear (22.1); *dāᵃ-dele-b-i'ᵉn* I stick it through his ear

la‘ excrement 122.2; *le'-k‘w-an-t‘k‘* my anus

Variations between *o* (*u*) and *ü* are:

s·omoda'ᵉn I boil it (58.10); *ts·ɬümũ̈mt‘aᵉn* I boil it (170.17)

xuma‘ food 54.4; *xümü'k‘deᵉ* I am sated (130.18)

An *a*—*ü* variation is seen in:

hau-hana'ᵉs it stopped (raining) 196.8; *pɬai-hunū'ᵘᵉs* he shrank 33.16

Variations between *a* and *i* are:

yawaũt‘eᵉ I talk (132.3); *yiwiya'ut‘eᵉ* I keep talking, I converse (194.5); *yiwin* talking, (power of) speech 138.4

laba'n I shall carry it (124.5); *libin* news (what is carried about from mouth to mouth[?]) 194.9

Of *o* (*u*)—*e* variations there have been found:

loho‘t‘eᵉ I die 184.18; *leheũt‘eᵉ* I drift dead ashore (75.5)

xāᵃ-huk!u'hak‘naᵉn I breathe; *xāᵃ-hege'hak‘naᵉn* I breathe (79.2)

t!os·ō'ᵘ little 180.20; *al-t!eᵉs·i‘t‘* little-eyed 94.3

An *e*—*i* variation is found in the probably related:

pɬeyēnt‘eᵉ I lie 71.5 (future *pɬè't‘eᵉ* [146.9]); *gwen-pɬiyi'nk‘waᵉn* I lie on pillow (future *gwen-pɬīk‘wan*)

t‘geᵉya‘lx it rolls; *a'l-t‘gīⁱya‘lx* tears rolled from (his) eyes 138.25

§ 32. *Consonant-Ablaut*

Consonant-ablaut, ordinarily a rare method of word-formation, plays a rather important part in the tense-formation (aorist and non-aorist) of many verbs. The variation is in every case one between fortis and non-fortis; i. e., between *p!*, *t!*, *k!*, *ts!*, and *b*, *d*, *g*, *s*, respectively. Three main types of grammatical consonant change are to be recognized:

1. An initial fortis in the aorist as opposed to an initial media in non-aorist forms:

aorist *k!olol-* (stem *gō^{u}l-* dig)
aorist *t!ebe-* (stem *de^{e}b-* arise)
aorist *t!ayag-* (stem *dā^{a}g-* find)

2. A medial fortis followed by a vowel in the aorist as opposed to a medial tenuis followed by a consonant in non-aorist forms:

aorist *lop!od-* (stem *lop'd-* rain, snow, or hail)
aorist *lats!ag-* (stem *lasg-* touch)

3. A medial media in the aorist as opposed to a medial fortis in the remaining forms:

aorist *nū^{u}d-* (stem *nū^{u}t!-* drown)
aorist *wī^{i}g-* (stem *wīk!-* spread)

Needless to say, this consonant-ablaut has absolutely nothing to do with the various mechanical consonant-changes dealt with in the phonology.

A few examples of consonant-ablaut not connected with regular grammatical changes have also been found:

s'*omod-* boil; ts'*!ümü^{u}mt'a-* boil
hau-gwen-yut!uyad-i- swallow down greedily (like duck or hog) 126.10; *hau-gwen-yunu^{s}yan-i-* dit.

The second example illustrates an interchange not of fortis and non-fortis (for *n^{s}* is related to *n* as is *t!* to *d*), but of non-nasal stop and nasal.

I. The Verb (§§ 33–83)

§ 33. *Introductory*

The verb is by far the most important part of the Takelma sentence, and as such it will be treated before the independent pronoun, noun, or adjective. A general idea of the make-up of the typical verb-form will have been gained from the general remarks on morphology; nevertheless the following formula will be found useful by way of restatement:

Loosely attached prefixes + verb-stem (*or* aorist stem derived from verb-stem) + derivational suffixes + formal elements (chiefly pronominal) + syntactic element.

This skeleton will at the same time serve to suggest an order of treatment of the various factors entering into verb morphology.

Before taking up the purely formal or relational elements, it seems best to get an idea of the main body or core of the word to which these relational elements are attached. The prefixes, though not entering into the vital grammatical structure of the verb, are important for the part they play in giving the whole verb-form its exact material content. They may, therefore, with advantage be taken up first.

1. Verbal Prefixes (§§ *34–38*)

§ 34. GENERAL REMARKS

Verbal prefixes may be classified into four groups when regard is mainly had to their function as determined largely by position with respect to other prefixes: incorporated objects, adverbial (including local) elements, incorporated instrumentals, and connective and modal particles. These various prefixes are simply strung along as particles in the same order in which they have been listed. Inasmuch as the exact function of a prefix is to a considerable extent determined by its position, it follows that the same prefix, phonetically speaking, may appear with slightly variant meanings according as it is to be interpreted as an object, local element, or instrument. Thus the prefix *ī-* always has reference to the hand or to both hands; but the exact nature of the reference depends partly on the form of the verb and partly on the position of the prefix itself, so that *ī-* may be translated, according to the circumstances of the case, as

HAND(S):

ī-pɬī^{i}-nō'^{u}k'wa^{ɛ}n I warm my hands

WITH THE HAND:

ī-^{ɛ}ō^{u}dini'^{ɛ}n I hunt for it with the hand (= I am feeling around for it)

IN THE HAND:

p'im-ī-hō^{u}gwagwa'^{ɛ}n I run with salmon in my hand

In the first of these three examples the *ī-* as object precedes the incorporated instrumental *pɬī^{i}* FIRE, so that the form means literally I WARM MY HANDS WITH FIRE. In the third form the *ī* as local element follows the incorporated object *p'im* SALMON. Such a triplicate use is found only in the case of incorporated nouns, particularly such as refer to parts of the body. These incorporated elements are to be kept distinct from certain other elements that are used in an

adverbial sense only, and regularly occupy the second position. The line between these two sets of prefixes is, however, difficult to draw when it comes to considering the place to be assigned to some of the prefixed elements. It is doubtful whether we are fully justified in making absolutely strict distinctions between the various uses of the body-part prefixes; at any rate, it is certainly preferable, from a native point of view, to translate the three examples of *ī-* incorporation given above as:

I-hand-fire-warm(-as-regards-myself)
I-hand-hunt-for-it
I-salmon-hand-run-with

leaving in each case the exact delimitation in meaning of the element HAND to be gathered from the general nature of the form. The following examples will render the matter of position and function of the various prefixes somewhat clearer:

Object.	Locative adverb.	Instrument.	Modal.	Verb proper.
bēm- sticks	*wa-* together	*ᵉī-* hand		*t!oxo'xiᵉn* I gather (them) (=I gather sticks together)
	heeᵉ- away	*wa-* with it		*wāagiwi'n* she is bought (=she is brought with it) 176.17
gwān- road	*ha-* in		*yaxa-* continuously	*t!ūlüülga'ᵉn* I follow (it) (=I keep following the trail)
dan- rocks	*bāa-* up	*ᵉī-* hand		*sgɛt!ɛ'sgidiᵉn* I lifted (them) (=I lifted up the rocks)
	han- across	*waya-* knife		*swilswa'lhi* he tore him (=he tore him open with a knife)73.3
	dak'- above	*da-* mouth	*wala'ᵉsina-* truly	*hāal!i'ndaᵉ* I answering him (=I *did* answer him)
	xa- between, in two	*ī-* hand	*mī'ⁱᵉwa-* probably	*sgī'ⁱbiᵉn* I cut him (=I'll probably cut him through) 31.13

If two adverbial (local) elements are used, the body-part prefix follows that which is primarily adverbial in character; thus:

ba-ide'ᵉdidi'nik!at' did you stretch it out? (=*ba-i-*out + *de-*lip, in front + *di* interrogative particle + *di'nik!at'* you stretched it)

In general it may be said that instances of a body-part prefix preceding a primarily adverbial element (like *ba-i-*, *bāᵃ-*, *heᵉᵉ-*, and others) are rare or entirely lacking.

From what has been said it might seem that the connective and modal elements (like *yaxa*, *mī'ⁱᵉwa*, and *di*) are more closely associated with the verb form than are the other elements, yet this is only apparently the case. Properly speaking all these modal elements are post-positives that normally attach themselves to the first word of

incorporation of *ī-* involves the incorporation of *wa'ya* in the analogous form.

As the incorporation of the noun as an instrument seems a rather important trait of Takelma, a number of further examples may be given:

xā^{a}-be^{e}-nō'^{u}k'wa^{ɛ}n I warm my back in (really = with) the sun (*be^{e}* sun); cf. 188.20

he^{eɛ}-xi-le'me^{ɛ}k'i he destroyed them with water (*xi* water)

he^{eɛ}-p!ī^{i}-leme'^{ɛ}k'i he destroyed them with fire (*p!ī^{i}* fire) 98.12

xa-dan-t'gī^{i}lt'ga'lhi he broke it with a rock (*dan* rock) 24.4

gwen-waya-sgō'^{u}t'i he cut their necks off with his knife (*wayā'^{a} wa'* with his knife, apart from verb-structure) 144.5, 22

xā^{a}-be^{e}m-k!wō^{u}t'k!widi^{ɛ}n I broke it with a stick (*be^{e}m* stick)

dā^{a}-he^{e}l-yebebi'^{ɛ}n I sing for him, literally, I engage (?) his ears with song (*he^{e}l* song; *al-yebeb-i-* show to)

dā^{a}-t'mū^{u}gal-lewe'^{ɛ}liwi^{ɛ}n I shake my ears with twisted shells (attached to them) (*t'mū^{u}gal* twisted shell) 122.1

dī^{i}-k'al-p'ili'p'ili^{ɛ}n I squash them with my penis (*k'al* penis) 73.14

de-ye't'-baxamagwana'k' we came crying, literally, we came having (our) mouths with tears (*yet'* tears)

yap!a-dauyā^{a}-ts!aya'k'i he shot people with his shaman's spirit (*dauyā'^{a}k'^{w}da* his shaman-spirit, apart from verb-structure); cf. 164.14

All these, except the last, begin with elements (*xā^{a}-*, *he^{eɛ}-*, *gwen-*, *dā^{a}-*, *dī^{i}-*, *de*) that can not be isolated from the verb.

Instrumentals, whether nouns or body-part prefixes, can occur only in transitive verbs. The forms *noxwa' yana-wa-lobobi'^{ɛ}n* I POUND ACORNS WITH A PESTLE and *noxwa'-ī-loboxagwa'^{ɛ}n* I POUND WITH A PESTLE, as compared with *lōbō'xade^{ɛ}* I POUND, will serve to illustrate this. The first sentence reads, when literally translated, PESTLE (*noxwa'*) I-ACORNS (*yana'*) -WITH-IT-POUND. The logical instrument (*noxwa'*) stands outside the verb-complex and is in apposition with its incorporated instrumental representative (*wa-*), *yana'* being the direct (incorporated) object. The form *lobo'xade^{ɛ}* I POUND is made intransitive by the element *-xa-* (hence the change in pronominal form from transitive *-^{ɛ}n* to intransitive *-de^{ɛ}*), and allows of no instrumental modification; a form like *ī-lobo'xade^{ɛ}* could hardly mean I POUND WITH THE HAND; at most it could signify I POUND IN THE HAND. If we wish, however, to express the logical instrument in some manner, and yet neglect to specify the object, we must get around the difficulty by making a secondary transitive of

the intransitive in *-xa-*. This is done by the suffixed element *-gw-* HAVING, ATTENDED BY. The grammatical object of a transitive verb in *-gw-* is never the logical object of the action, but always dependent upon the comitative idea introduced by this suffix. Hence the second form is not provided with a true instrumental (WITH A PESTLE), but takes the logical instrument (*noxwa'*) as a direct object, while the *ī-* is best rendered by IN THE HAND; to translate literally, the form really means I POUND HAVING A PESTLE IN THE HAND.

It sometimes happens that a verb form has two instrumentals, one, generally *ī-* WITH THE HAND, expressing indefinite or remote instrumentality, the second, a noun or demonstrative, expressing the actual instrument by means of which the action is accomplished. In such cases the second instrument is expressed outside of the verb-complex, but may be represented in the verb by the incorporated *wa* WITH IT following the first instrumental element (*ī-*). Examples of such double instrumentals are:

gwalt' *bā^{a}-^{ɛ}ī-wa-xō'^{u}t'^{i}* wind he-up-hand-with-it-caused-them-to-fall, i. e., he caused them to fall by means of a wind (that he made go up) 168.2

ga *^{ɛ}ī-wa-molo^{ɛ}ma'lhi* that she-hand-with-it-stirs-it-up, i. e., she stirs it up with that (incidentally, of course, she uses her hand too) 170.16

dan (object) *k!ama* (instr.) *p!ai-^{ɛ}ī-wa-sgā'^{a}k'sgigi^{ɛ}n* rocks tongs down-hand-with-it-pick-up, i. e., I pick up the rocks with the tongs (and put them) down

2. The noun as instrument has been shown to act in a manner entirely analogous to the instrumental body-part prefix. The latter can, without phonetic change, become the direct object of the verb by occupying the proper position:

s·in-ī-lats!agi'^{ɛ}n I touched his nose with my hand (*s·in-* nose)

but, theoretically at least,

ī-s·in-lats!agi'^{ɛ}n I touched his hand with my nose

If we bear in mind that such elements as *s·in-* and *ī-* are really nothing but nouns in their stem form (with possessive pronoun: *s·in-ī-x-da* HIS NOSE; *ī'-ū-x-da* HIS HAND), the parallelism with such noun-objects as *bēm* and *gwān* (see examples on p. 65) becomes complete. The fact that they may occur independently, while *s·in-* and *ī-* never do, is really irrelevant to the argument, as a body-part noun must necessarily be associated with some definite person. Entirely

ha-t'gā^a-gwidi'k'^{w} he threw it into the open (literally, he-in-earth-threw-it); cf. *ha-t'gāū* in the earth

ba-i-dak'-wili-t!ā^{a}di'^{s}n I ran out of the house (*ba-i-* out, adverbial prefix + *dak'-* on top of + *wili* house) 24.13; cf. *dak'-wilī* on top of the house

ha-yau-t'ge'nets!a^{s}n I put it about my waist (literally, I-in [under?]-rib-put-it-about); cf. *ha-yawadē* inside my ribs

Such verbs with incorporated local phrases are naturally not to be confused with cases in which a local prefix is followed by an incorporated (instrumental) noun with which it is not, however, directly connected. Thus the *ha-* of *ha-tgā^a-gwidi'k'^{w}* is not directly comparable to the *ha-* of a form like:

ha-p!ī^i-ts·!ü'lük!i^{s}n I set it on fire (*p!ī^i* with fire) 73.9

Here *ha-p!ī^i-* cannot be rendered IN THE FIRE.

Some verb-forms show an evidently incorporated noun that has so thoroughly amalgamated with the stem that it is difficult to make out its exact share in the building up of the material content of the verb. For example:

s·omlohoya'lda^{s}n I doctor him as *s·omloho'lxa^{s}s*

doubtless contains the incorporated noun *s·oⁿ* MOUNTAIN; but the implied allusion is not at all evident, except in so far as the protecting spirits of the *s·omloho'lxa^{s}s* are largely mountain-spirits. The verb itself is probably a derivative of the verb-stem *loho-* DIE (aorist *lohoi-*).

§ 36. BODY-PART PREFIXES

Having disposed of the modal prefixes, which on analysis turned out to be verbal prefixes only in appearance, and of incorporated nouns, which one would hardly be inclined to term prefixes in the narrower sense of the term, there remain for our consideration two important sets of genuine prefixes, body-part elements and adverbial, chiefly local, prefixes. The former will be taken up first. By "body-part prefix" is not meant any body-part noun in its incorporated form (many of these, such as *ts·!elei-* EYE, *t!iba-* PANCREAS, not differing morphologically from ordinary incorporated nouns), but only certain etymologically important monosyllabic elements that are used to indicate in a more general way what body-part is concerned in a particular action, and which may be regarded as in some degree verbal classifiers. With the exception of *ī-* HAND and *s·in-* NOSE, classed with the rest

because of their very extended use, they differ fundamentally from other body-part nouns in that they have, besides their literal, also a more formal, local value; in this capacity they are regularly employed, also, as the first element of noun and pronoun local phrases, and, some of them, as the second element of local postpositions. In the following list the second column gives the literal body-part significance; the third, the generalized local meaning; the fourth, the corresponding independent noun (in a few cases, it will be observed, there is no such corresponding noun); and the fifth column, an example of a local phrase:

Prefix.	Body.	Local.	Noun.	Phrase.
dak'-	head	over, above	*da'g-ax- dek'* my head	*dak'-wilī* over the house
{da-, de-	mouth, lips		*dēx- dek'*	
{ de-		in front		*dēt' gwa* in front of himself
dāa-	ear	alongside	*dāa- n- x- de'k'*	*dāa-gela'm* along the river
s·in-	nose		*s·in-ī i-x-de'k'*	
gwen-	neck, nape	in back, behind	[*bo'k' dan-x- de'k'*]	*gwen-t'gāū* on east side of the land
ī-	hand		*ī-ū-x- de'k'*	
xāa-	back, waist	between, in two	*xāa-ha'm-t'k'*	*xāa- gweldē* between my legs
dīi-	back	on top of	——	*dīi-īūdē* over my hand
gel-	breast	facing	*gēl-x-dek'*, [*bilg-an-x- de'k'*]	*geldē* facing, in front of me
dī^{e}-	anus	in rear	[*delg-a'n- t'k'*]	*dī^{e}-t'gāū* on west side of the land
ha-	woman's private parts	in	*haũ-x-dek'*	*ha-xiya'* in the water
gwel-	leg	under	*gwēl-x-dek'*	*gwel-xiya'* under water
la-	belly		*?lāa-* excrement	*La-t'gāū* Uplands (=? front of the country)
sal-	foot	down, below	*sal-x-de'k'*	
al-	eye, face	to. at	[*ts·! eleī- t'k'* my eye] [*li'ugw- ax- dek'* my face	*al-s·ōu ma'l* to the mountain
dī i^{e}al-	forehead (= above eye)		*dī i^{e}a'l-t'k'*	*dī i^{e}a'lda* at his forehead
'gwenha-u-	nape (=neck under)		*gwenha-u-x-de'k'*	*gwenha-udē* at my nape

The last two are evidently compounded; the first of *dī^{i}-* ABOVE and *al-* EYE, FACE, the second of *gwen-*NECK and probably adverbial prefix *ha-u-* UNDER. The noun *hau-x-* WOMAN'S PRIVATE PARTS may possibly be connected with this prefix *ha-u-*, though, in view of the fact that *ha-* appears as the incorporated form of the noun, it seems more probable that the resemblance in form and meaning is accidental. It is possible that other rarer body-part prefixes occur, but those listed are all that have been found.

In not a few cases, where the body-part prefix evidently has neither objective nor instrumental meaning, it may yet be difficult to see a clearly local idea involved. This is apt to be the case particularly

apparently secondary *de-* prefixes will be listed together with and immediately following the *da-* prefixes, while the true, chiefly local, *de-*, (*da*)- prefixes will be put by themselves.

(a^1) ***da-, (de-)*** MOUTH, IN MOUTH, WITH MOUTH, LIPS, TEETH, TONGUE:

da$^{\varepsilon}$*ogoīhi* he gave him to eat (lit., he mouth-gave him) (186.25)
de$^{\varepsilon}$*ügü's·i* he gave me to eat 186.2
da*t!aya'*$^{i\varepsilon}$ he went to get something to eat 75.9
da*da'k'dā*^{a}*k'* sharpen your teeth! 126.18; 128.23
da*ts!ala'ts!ili*$^{\varepsilon}$*n* I chew it
*al*da*t!ele't!ili*$^{\varepsilon}$*n* I lick it
da*lats!agi'*$^{\varepsilon}$*n* I taste it (literally, I mouth-touch it)
*al*da*p'õp'iwi*$^{\varepsilon}$*n* I blow at it (194.1)
da*dama'*$^{\varepsilon}$*x* he was out of wind 26.5
da*smayama'*$^{\varepsilon}$*n* I smile
*ha*da$^{\varepsilon}$*yowo'*^{u}*da*$^{\varepsilon}$ (creek) going into (river) (literally, in-mouth-being)
da*lõ*^{u}*l*$^{\varepsilon}$ he lied (literally, he mouth-played) 110.23; 156.14
de*lũnhixi* he lied to me
da*yuwo'*$^{\varepsilon}$*s* he suddenly stopped (singing, talking) (literally, he mouth-started, as in fright) 138.23
*dak'*da*hā*^{a}*li'*$^{\varepsilon}$*n* I answer him (180.18)
*dak'*de*hēlsi* he answers me

(a^2):

he$^{\varepsilon}$de*le'lek!i*$^{\varepsilon}$*n* I finished (story, talking) 50.4
de*lümü'sgade*$^{\varepsilon}$ I tell truth (184.3)
de*xebena't'* you said it (literally, you mouth-did it) 14.10; 15.6
*al*de*ts·!ü'lük!i*$^{\varepsilon}$*n* I suck it
de*dets·!ü'lük!i*$^{\varepsilon}$*n* I kiss her (first *de-* as object, her lips; second *de-* as instrument, with my lips)
de*hememi'*$^{\varepsilon}$*n* I taste it (cf. *ī-hemem-* wrestle)
*ba-i*de*henena't'* you are through eating (literally, you are out-mouth-done) (136.16)
de*ligia'lda*$^{\varepsilon}$*n* I fetch it for him to eat (130.9)
de*he'yek!i*$^{\varepsilon}$*n* I left food over

da- can not stand before *ī-* HAND, because of the palatal timbre of the latter. Examples of *de*$^{\varepsilon}$*ī-*:

de$^{\varepsilon}$*īda'mk!ink'* it will get choked
de$^{\varepsilon}$*īlats!agi'*$^{\varepsilon}$*n* I touched his mouth (*de-* = *da-* as object; *ī-* as instrument. Contrast above *da-lats!agi'*$^{\varepsilon}$*n* I tasted it, with *da-* as instrument)

Similarly other palatal non-radical elements cause a change of *da-* to *de-*:

de-his-gulu-gwa'ᵉn I want it in my mouth (=I desire to eat [*his* = trying])

(*b*) ***de-,(da-)*** IN FRONT, AHEAD, AT DOOR OF HOUSE:

deᵉ*īk!ala'k!ilin* (house) was scratched on door 154.1, 2, 3
deᵉ*īse'ᵉk*ʻ he opened door of house (cf. *alse'ᵉk*ʻ he bowed to him) 63.12
deᵉ*īp*ʻ*owo'ᵉk*ʻ he bent it
*bāᵃ*de'ᵉ*yeweya*ʻ*k*ʻʷ he started traveling again (literally, he up-ahead-went-again-with it) 22.4; 24.9; 25.6
de*wiliwa'lsi* she is fighting me 27.3
deᵉ*gwidi*ʻ*k*ʻʷ he stuck (threw) it into (fire) 27.8
de*k*ʻ*iwi'k*ʻ*auk*ʻ*waᵉn* I brandish it before my face (172.12)
gasa'lhi de'*hits!āᵃgaᵉs* fast stepper (literally, quickly ahead-stepper)
*ba-i*deᵉ*di'nixiaᵘᵋ* they marched by in regular order (literally, they out-ahead-stretched) 144.14
deᵉ*īwī'ⁱgiᵉn* I spread it out (120.1)
*t*ʻ*gāᵃ* de'*hi k!iya'k*ʻ*iᵋ* if the world goes on (literally, world ahead-goes-if) 146.4
da*mats!a*ʻ*k*ʻ he put it point foremost (into their eyes) 27.8

As in the case of *dak*ʻ-, so also here, not a few forms occur in which the meaning of the prefix *da-*, *de-* is far from being clearly in evidence:

da*t!agãᵉn* I build a fire (96.17)
⎧*al*da*tc!u'lūᵘᵋk*ʻ he caught fire 98.3
⎩*al*de*tc!ü'lūᵘᵋxi* I caught fire
de*gülü'k!alx* it glows (142.1); 188.15
*al*da*t*ʻ*guyū'ⁱᵋsi* (fire) blisters my face (25.11)
deᵉ*īt*ʻ*a'mak!iᵋn* I put out the fire
da*t*ʻ*ama'ᵋx* the fire goes out
da*t!abaga'ᵋn* I finish it (176.6)
da*sgayana'ᵋn* I lie down

As the first seven of these examples show, *da-*, *de-* sometimes imply a (probably secondary) reference to fire.

3. ***dāᵃ-***

(*a*) EAR, WITH EAR (referring to hearing), IN EAR, CHEEK, SIDES OF HEAD:

dāᵃ*ts!ayãp*ʻ he washed his ear
dāᵉ*īts·!ama*ʻ*k*ʻ he squeezed his ears
dāᵉ*ilats!agi'ᵋn* I touched his ear, cheek
dāᵃᵋ*agani'ᵋn* I heard it (55.3; 108.16)
dāᵃ*dāᵃgi'ᵋn* I am able to hear it (literally, I can ear-find it) (100.12)

xā^{a}*dant'gī'lt'ga'lhi* he broke it with rock 24.4
xā^{a}*t'be'*$^{e\varepsilon}$*k't'bagams* it is all tied together 27.13
xā^{a}*salt'gwe'lt'gwili* he broke it by stepping on it 31.4, 5
xā^{a}*be*^{e}*mk!õ^{u}ṭ'k!idi$^{\varepsilon}$n* I broke it with stick

In xa*hege'hak'na$^{\varepsilon}$n* I BREATHE (79.2) and xa*huk!u'hak'na$^{\varepsilon}$n* I BREATHE, the *xa-* may refer to the heaving motion up from the waist.

8. ***dī^{i}-***

(*a*) BACK:

The local uses of *xā^{a}-* and *dī^{i}-* (IN MIDDLE, BETWEEN, and ABOVE, respectively) would indicate that, in their more literal signification, they refer respectively to the LOWER BACK about the waist and the UPPER BACK, though no direct information was obtained of the distinction.

dī^{i}*ts!ayãp'* he washed himself in back of body
dī^{i}*hãx* his back is burning
dī^{i}*t'bō^{u}k!a'lxde$^{\varepsilon}$* I have warts on my back 102.20
dī^{i}*dū^{u}gwa'nk'* she will wear it (i. e., skirt) 55.9

(*b*) ABOVE, ON TOP:

dī^{i}*he'liya* sleeping on board platform 13.2
dīdā^{a}*t'bā'^{a}gamt'gwide$^{\varepsilon}$* I tie my hair on sides of my head (see under *dā^{a}-*) (140.11; 142.17)
dī$^{i\varepsilon}$*algelegala'mda$^{\varepsilon}$n* I tie his hair up into top-knot (172.2)
dī$^{\varepsilon}$*uyu'ts!amda$^{\varepsilon}$n* I fool him (aorist *uyuts!-* laugh)
dī^{i}*hinxō'^{u}gi$^{\varepsilon}$n* I scare him
dī^{i}*mãs* (earth) is lit up (78.1)
dī^{i}*hili^{i}gwa'$^{\varepsilon}$n* I am glad 22.2

dī^{i}- is used in quite a number of verbs of mashing or squeezing, the primary idea being probably that of pressing down on top of something:

dī^{i}*p'ili'p'ili$^{\varepsilon}$n* I squash (yellow-jackets) (74.3); contrast *gel-bēm-p'ili'p'ili$^{\varepsilon}$n* I whip him on his breast (literally, I-breast-stick-whip-him) (cf. 76.1, 2, 3)
dī^{i}*t!iyī^{i}si'$^{\varepsilon}$n* I mash them
ba-idīgwibī'^{i}k'wap' it popped all around 27.14
dī^{i}*t'gumu't'gimi$^{\varepsilon}$n* I squeezed and cracked many insects (such as fleas)

In many cases, as in some of the forms given above, the primary signification of *dī^{i}-* is greatly obscured. It is not at all certain but that we are at times (as in *dī$^{\varepsilon}$uyu'ts!amda$^{\varepsilon}$n*) dealing really with the phonetically similar prefix *dī$^{\varepsilon}$-* REAR.

9. ***gel-***

(*a*) BREAST, WITH BREAST (mental activities):

gel*ts!ayãp'* he washed his breast
gel$^{\varepsilon}$*ĭlats!agi'*$^{\varepsilon}$*n* I touched his breast
bā^{a}ge'l$^{\varepsilon}$*yo* lie down with belly up! (lit., up-belly-be!) 140.4
gel*gulugwa'*$^{\varepsilon}$*n* I desire, want it 32.5, 6, 7
gel*hewe'hau* he thought 44.11; 124.3; 142.20
gel*lohoigwa'*$^{\varepsilon}$*n* I avenge him (apparently = I breast-die-with him) (146.8; 148.3)
gel*t!aya'k'* they thought of it (see under *s·in-* and *dā*^{a}) 152.10
gel*yalãxaldi*$^{\varepsilon}$*n* I forgot him (lit., I breast-lost him) (77.10)
gel*ts·!aya'mxamk'* she hid (certain facts) from us 158.7
gel*dulu'k'de*$^{\varepsilon}$ I am getting lazy
gel*heye'*$^{\varepsilon}$*x* he is stingy (literally, he breast-leaves-remaining = keeps surplus to himself) 196.8

(*b*) FACING:

gel*t!ana'hi* she pushed him (?literally, she held him [away] facing her)[1] (25.10)
gel*wayãn* he slept with her (literally, he caused her to sleep facing him) 26.4; (108.3; 190.2)
wa't'gwan gel$^{\varepsilon}$*yowo'*$^{\varepsilon}$ they faced each other (literally, to each other they breast-were) 26.15
gel*k!iyi'*$^{\varepsilon}$*k'* he turned around so as to face him 170.2

10. ***dī***$^{\varepsilon}$***-***

(*a*) ANUS:

dī$^{\varepsilon}$*ts!ayãp'* he washed his anus
*ba-i*dī$^{\varepsilon}$*t'gats!a't'gisi*$^{\varepsilon}$*n* I stick out my anus (164.19; 166.1)
dī$^{\varepsilon}$*hãx* his anus is burning 94.13
dī$^{\varepsilon}$*hagāɪt'e*$^{\varepsilon}$ I feel ticklish in my anus (as though expecting to be kicked) (cf. under *dak'-*) 166.1
di$^{\varepsilon}$*xō'*^{u}*s* (food) is spilling out from his anus, (acorns) spill out from hopper 94.2, 4, 5

(*b*) IN REAR, BEHIND:

dī$^{\varepsilon}$*salyomo'hin* I shall catch up with him in running
be^{e} dī'$^{\varepsilon}$*k!iyi'*$^{\varepsilon}$*k'* afternoon came (lit., sun went in rear) (124.15)
da$^{\varepsilon}$*o'l* dī$^{\varepsilon}$*hiwiliɪt'e*$^{\varepsilon}$ I ran close behind

As happens more or less frequently with all body-part prefixes, the primary meaning, at least in English translation, of *dī*$^{\varepsilon}$- seems lost sight of at times:

*abai*dī$^{\varepsilon}$*yowō'*^{u}*da*$^{\varepsilon}$ coming into house to fight (*abai-* into house; *yowō'*^{u}*da*$^{\varepsilon}$ being) 24.14

[1] Though perhaps better SHE HELD HIM WITH HER BREAST, taking *gel-* as instrument.

*p!a-i*dī^{s}*hana'*^{s}*s* it stopped (wind, rain, snow, hail) 152.16

In a number of verbs *dī^{s}-* expresses: felling, digging under, or erecting a tree or stick, the fundamental notion being probably that of activity at the butt end of a long object:

di^{s}*sgot!õlha bēm* he was always cutting down trees 108.8

dī^{s}*k!olola'n* (tree) was dug under 48.5

dī^{s}*īsgūyū'*^{u}*k!in* (tree) was made to fall by being dug under 48.7, 8, 12

*p!a-i*dī^{s}*lō'*^{u}*gwa*^{s}*n* I make (stick, pestle) stand up (by placing it on its butt end) (116.18; 176.1, 2)

*p!a-i*dī^{s}*sgimi'sgam* they set (house posts) down into ground

11. ***ha-***

(*a*) WOMAN'S PRIVATE PARTS:

ha*ts!ayãp*ʻ she washed her private parts

ha^{s}*īlats!agi'*^{s}*n* he touched her private parts

ha^{s}*īwesga'hak*ʻ^{w} she spread apart her legs 26.4

(*b*) IN:

(*dānxdagwa*) ha*ts!ayãk*ʻ he washed inside (of his ear)

(*dēxda*) ha*lō'*^{u}*k*ʻ*i* he stuck it into (his mouth)

(*s·inīxda*) ha*dele'p*ʻ*i* he stuck it up into (his nose)

ha*lohõn* he caught them in trap (literally, he caused them to die in) (100.8)

(*gwãn*) ha*t!ülügwa'*^{s}*n* I follow in (trail) (96.8,9)

ha*lō'*^{u}*k*ʻ she put on (her dress), they put on (their skins, garments) 160.6

ha^{s}*īhü'lū*^{u}*hal* they skinned them 160.5

ha*ya-ut'ge'nets!a*^{s}*n* I put on (my vest)

As the last examples show *ha-* sometimes conveys the special notion of putting on or taking off a skin or garment.

12. ***gwel-***

(*a*) LEG, IN LEG, WITH LEG:

gwel*ts!ayãp*ʻ he washed his legs

gwel*le'ye*^{e}*sde*^{s} I am lame

gwel*lō'*^{u}^{s}*k*ʻ^{w} put on (your leggings)!

gwel^{s}*ī*^{i}*wi'*^{s}*n* I beat him in running (lit., I-leg-left-him) (184.14)

gwel*salt!eyēsna*^{s}*n* [1] I have no fat in my legs and feet 102.22

(*b*) UNDER, AWAY FROM VIEW:

gwel*mats!a*ʻ*k*ʻ they put (food) away (sc., under platforms) 124.22; (132.8)

gwel*ge'l*^{s}*yowō*^{u}*da*^{s} he having his back to him (literally, facing him away from view) 122.7

[1] This form is an excellent example of the rather uncommon coordinate use of two body-part prefixes (*gwel-* LEG and *sal-* FOOT).

13. ***la-***

(*a*) FRONT OF BODY (probably BELLY as contrasted with *gel-* BREAST):

la*ts!ayāp*ʻ he washed himself in front of body

(*b*) BURST, RIP OPEN:

la*tʻbā'ᵃx* it burst 24.17

la^{ɛ}*ītʻbā'ᵃk!itʻba*^{ɛ} you (pl.) shall rip them open (like game after roasting) 118.5

la*saltʻbā'ᵃgi*^{ɛ}*n* I burst it with my feet (140.22)

la^{ɛ}*wayatʻbā'ᵃgi*^{ɛ}*n* I rip it open with knife (*waya* knife, as incorporated instrument)

14. ***sal-***

(*a*) FOOT, WITH FOOT:

sal*lats!agi'*^{ɛ}*n* I stepped on it (instrument *sal-*: I foot-touched it) (196.18)

sal^{ɛ}*ītats!agi'*^{ɛ}*n* I touched his foot (object *sal-;* instrument *ī-*)

sal*ts!ayāp*ʻ he washed his feet

sal*xugī* they are standing 63.2

he^{ɛɛ}salʻ*gūn* kick him off! (24.17)

*al*salʻ*bā'ᵃk*ʻ he kicked him 86.16,17,18

gelbam sal*gwi'tʻgwat*ʻ kick it way up!

sal*yuwo'*^{ɛ}*s* he suddenly lifted up his foot (as when frightened) (cf. under *da-* and *s·in-*)

sal*p!ī*^{i}*nō'ᵘkʻwa*^{ɛ}*n* I warmed my feet

15. ***al-*** FACE, WITH EYE, TO, AT

This is in all respects the most difficult prefix in regard to the satisfactory determination of its exact meaning. In a large number of cases it seems to involve the idea of sight, not infrequently adding that concept to a form which does not in itself convey any such implication. In most of the verb-forms, however, many of which have already been given under other prefixes, the *al-* seems to have no definitely ascertainable signification at all. In some cases it may be considered merely as an empty element serving as a support for a post-positive modal particle. For example:

al-*his-gulugwa'*^{ɛ}*n* I am desirous of something

where *his* TRYING can not occupy an initial position

al-*di-yok!oyaʻtʻ* did you know him?

Here al*yok!oyaʻtʻ* in itself hardly differs in content from *yok!oyaʻtʻ* YOU KNEW HIM. The most satisfactory definition

that can be given of *al-* in its more general and indefinite use is that it conveys the idea of motion out from the sphere of the person concerned, whether the motion be directed toward some definite goal (object) or not; an approximate translation in such cases would be TO, AT. The correctness of this interpretation is borne out by the fact that *al-* at times replaces a more definite local phrase, as though it were a substitute for it, of the same general formal but weaker material content.

wā^{a}da lō^{u}gwa$'^{\varepsilon}$n to-him I-thrust-it, where *wā^{a}da* definitely expresses a local pronominal idea TO, AT HIM.

Compare:

al*lō$'^{u}$gwi$^{\varepsilon}$n* I stretched it out to him

where the exact local definition of the action is not so clearly expressed; the direct object of the verb being here not the object thrust, but the person aimed at, while the indirectness of the action is interpreted by means of *al-* as an adverbial or local modification of the verbal content. The change of vowel in the ending, *a—i*, is closely connected, as we shall later see, with this change of "face" in the verb. The first form may be literally translated as TO-HIM I-IT-THRUST; the second, as I-HIM-TO-THRUST (IT). Similarly, in al$^{\varepsilon}$*īlats!agi$'^{\varepsilon}$n* I TOUCHED HIS BODY, the *al-* is probably best considered as a general directive prefix replacing the more special prefixes (such as *sal-*, *s·in-*, and so on) that indicate the particular part of the body affected, or, as one might put it, the exact limit of motion. The use of *al-* in local phrases shows clearly its general local significance: al*s·ō^{u}ma`l* AT, TO THE MOUNTAIN; *ga$^{\varepsilon}$a`l* TO THAT, as postposition equivalent to TO, FOR. FROM.

(*a*) FACE, EYE:

al$^{\varepsilon}$*ō^{u}dini$'^{\varepsilon}$n* I look around for him (cf. *ō^{u}da$'^{\varepsilon}$n* I hunt for him) (92.27)

al*xī$'^{i}$gi$^{\varepsilon}$n* I see, look at him (*-xī^{i}g-* never occurs alone) 186.7; 188.11.

al*gaya`n* he turned his face

al*yebebi$'^{\varepsilon}$n* I showed it to him (77.8)

al*yowōt`e$^{\varepsilon}$* I looked (cf. *yowōt`e$^{\varepsilon}$* I was) (64.3)

al*ts!ayaga$'^{\varepsilon}$n* I washed his face (64.5)

mānx al*nū$'^{u}$k`wa* he painted his (own) face

alt!aya'k' he found, discovered it (literally, he eye-found it; cf. under *s·in-*, *dā^{a}-*, and *gel-*) 47.10; 92.27; 194.13
al*sgalā^{a}liwi'^{ɛ}n* I looked at them (moving head slightly to side)
alt'*bō^{u}k!a'lxde^{ɛ}* I have pimples on my face (cf. 102.20)
alt'*wap!a't'wap'na^{ɛ}n* I blink with my eyes 102.20
al*we'k!ala^{ɛ}n* I shine
*xā^{ɛ}*a'lt!*anahi* they watched it (literally, they-between-eye-held it; *xā-^{ɛ}al* as incorporated local phrase[?]) 136.8

(*b*) TO, AT:

It is at least possible, if not very probable, that *al-* TO, AT, and *al-* EYE, FACE, are two entirely distinct prefixes. As many preceding examples have incidentally illustrated the local use of *al-*, only a few more need be given:

al*p'oūp'auhi* he blew on it 15.1
al*hūyūxde^{ɛ}* I go hunting (42.1; 58.14; 70.2; 126.21)
al*gesegasa'lt'e^{ɛ}* I was washing
al*heme'k'* they met him 24.11
al^{ɛ}*īxlep!e'xlap'* he mashed it up into dough-like mass 94.11
al^{ɛ}*īts·!ō'^{u}di^{ɛ}n* I touch, reach it
al*se'^{e}gi^{ɛ}n* I bowed to him (172.10)

16. ***dī^{it}al-*** FOREHEAD:

dī^{it}al*ts!ayāp'* he washed his forehead
dī^{it}al*gelegala'ms* he tied his hair up into top-knot 172.2
dī^{ɛ}al*k'ā'^{a}p'gwa* he put (dust) on his forehead 136.28

17. ***gwenha-u-*** NAPE:

gwenha'-u*ts!ayaga^{ɛ}n* I shoot off nape of neck
gwenha-u*t'be'^{e}gams* he has his hair tied in back of his head

It will have been noticed that several of the body-part prefixes have developed special uses that almost entitle them, at times, to being considered verbal in function. Thus *xā^{a}-* BACK, BETWEEN has been seen to develop, from its latter local use, the more strictly verbal one of cutting, splitting, breaking, or rending in two; the ideas of BETWEEN and of DIVISION IN TWO are naturally closely associated. The specialized semiverbal uses of some of the prefixes may be thus listed:

da-, *de-* activity in reference to fire (burn, set on fire, glow)
xā^{a}- rend in two (cut, split, break)
dī^{it}- crushing activity (mash, squeeze)
dī^{ɛ}- fell, erect (long object)
ha- dress, undress

la- burst, rip open
al- look, see

The resemblance between this use of the Takelma body-part prefixes and the Siouan use of verb prefixes denoting instrumental activities (e. g., Ponka *ba-* BY PRESSING WITH THE HAND, *ma-* BY CUTTING, *ɸa-* WITH THE MOUTH, BY BLOWING) is not far to seek, although in Takelma the development seems most plausibly explained from the local, rather than the instrumental, force of the prefixes. Neither the employment of Takelma body-part nor of Siouan instrumental prefixes with verb stems is in any morphologic respect comparable to the peculiar composition of initial and second-position verb stems characteristic of Algonkin and Yana. The same general psychic tendency toward the logical analysis of an apparently simple activity into its component elements, however, seems evident in the former as well as in the latter languages.

§ 37. LOCAL PREFIXES

The purely local prefixes, those that are not in any way associated with parts of the body, are to be divided into two groups:

(1) Such as are used also in the formation of noun and pronoun local phrases or of postpositions, these being in that regard closely allied to the body-part prefixes in their more general local use; and

(2) Such as are employed strictly as verbal prefixes, and are incapable of entering into combination with denominating elements. The following table gives all the common prefixes of both groups, examples of noun or pronoun local phrases being added in the last column:

Prefix.	Translation.	Local phrase.
han-	across, through	*hanwaxga'n* across the creek
ha-u-	under, down	*hawandẽ* under me
he^{e}-	away, off	*hee^{e}s·ōuma'l* beyond the mountain
dal-	away into brush, among, between	*dan gada'l* among rocks
hā^{e}ya-	on both sides	*hā'^{e}yadẽ* on both sides of, around me
hāa^{e}-	yonder, far off	
me^{e}-	hither	
wĭ-	around	
hawi-	in front, still	
wa-	together	
bāa-	up	
ba-i-	out, out of house	
p!a-i-	down	
aba-i-	in house, into house	
bam-	up into air	
xam-	in river	

Of these, the first five belong to the first group, the last nine to the second. The position of *hā^{aɛ}-* and *me^{ɛ}-* is somewhat doubtful; but the fairly evident etymological connection of the former with *hā^{aɛ}ya* and the correlative relation in form and meaning between *me^{ɛ}-* and *he^{eɛ}-*, make it probable that they are to be classed with the first group. While some of these prefixes (such as *dal-* and *han-*) are inconceivable as separate adverbial elements, others (particularly *aba-i*, which is apparently composed of demonstrative element *a-* THIS + *ba-i*) are on the border-land between true prefix and independent adverb. *me^{ɛ}-* and *he^{eɛ}-*, though they are never used alone, stand in close etymological relation to a number of local adverbs (such as *eme^{ɛ}* HERE and *ge* THERE), which also, though not so rigidly as to justify their being termed prefixes, tend to stand before the verb. The difference between local prefix and adverb is one of degree rather than of fundamental morphologic traits; in any case, it is rather artificial to draw the line between *me^{ɛ}-* in such forms as *me^{ɛ}yèū* COME BACK! and *ge* in, e. g., *ge ^{ɛ}yowo'^{ɛ}* THERE IT IS. Sometimes, though not frequently, two local prefixes, neither of them a body-part element, occur in a single verb form. See, e. g., *p!ai-hau-* under 2 below, also *abai-bā^{a}-* 62.1.

1. ***han-*** THROUGH, ACROSS:

hanyada't'$e^{ɛ}$ I swim across
hangwidi'k'^{w} he threw it across 120.22
han^{ɛ}wa^{ɛ}alxī'^{i}k' he looked through it
hanyewe'^{iɛ} he went back across 178.16
*gwān-*hansgō'^{u}sde^{ɛ} I lie stretched across the trail (literally, I-road-across-cut) (148.8)

2. ***ha-u-*** UNDER, DOWN:

ha-ugwenyut!u'yidi^{ɛ}n I swallow it down greedily, making grunting noise (126.10)
ha-usāk'^{w} he paddled him down river (*bā^{a}-* up river)
ha-uyowo't'$e^{ɛ}$ I sweat (literally, I-under-am)
*ei p!a-i*ha'-ut'gū^{u}px canoe upset 60.8
ha-uhana'^{ɛ}s it stopped (raining) 196.8

3. ***he^{eɛ}-*** OFF, AWAY:

he^{ɛ}īleme'^{ɛ}k' he killed them off 14.13; 110.21; 144.6
he^{eɛ}sgō'^{u}da^{ɛ}n I cut it off (44.4); 72.10; (92.14,16)
he^{eɛ}gwidi'k'^{w} he threw it away
he^{eɛ}īūk'wa he went away from him (23.12; 146.18)
he^{eɛ}salt'gūnt'gini^{ɛ}n I kick him off (24.17)

he$^{e\varepsilon}$*īhū'lup!i*$^{\varepsilon}$*n* I beat off bark (with stick)
he$^{e\varepsilon}$*īk'ap!a'k'ibi*$^{\varepsilon}$*n* I chipped them off (92.3)
he$^{e\varepsilon}$*wā*^{a}*ga'*$^{\varepsilon}$*n* I buy it (literally, I carry it off) (176.17)
he$^{e\varepsilon}$*t'guyū'i*$^{\varepsilon}$*s* it is blistered

4. ***dal-*** INTO BRUSH, AMONG:

dal*yewe'i*$^{\varepsilon}$ he ran off into brush 14.6; 110.10
dal*gwidi'k'*^{w} he threw it into brush
dal*p'ō'*^{u}*di*$^{\varepsilon}$*n* I mix it with it (178.5)
dal*xabili'*$^{u\varepsilon}$ he jumped between them 106.20

5. ***hā*$^{\varepsilon}$*ya-*** ON BOTH SIDES:

hā$^{\varepsilon}$ya*gini'*$^{\varepsilon}$*k'* they passed each other
hā$^{\varepsilon}$ya*wat!emẽxia*$^{u\varepsilon}$ they assemble coming from both sides 144.23

6. ***hā*$^{a\varepsilon}$** FAR OFF:

hā'$^{a\varepsilon}$*yewe*$^{i\varepsilon}$ they returned going far off 146.22; (47.4; 188.1)
hā$^{\varepsilon}$*xdā'*^{a}*xdagwa*$^{\varepsilon}$*n* I threw something slippery way off

This prefix is evidently identical with the demonstrative stem *hā*$^{a\varepsilon}$ seen, e. g., in *hā'*$^{\varepsilon}$*ga* THAT ONE YONDER.

7. ***me*$^{\varepsilon}$-** HITHER:

me$^{\varepsilon}$*gini'*$^{\varepsilon}$*k'* he came here 146.24 (*ge gini'*$^{\varepsilon}$*k'* he went there 77.7)
*ha'n*me$^{\varepsilon}$*gini*$^{\varepsilon}$*k'* they come from across (note two local prefixes; *hanginí*$^{\varepsilon}$*k'* they go across)
me$^{\varepsilon}$*yèū* come back! (*yèū* return!) (23.11,12,13,14; 96.5); 59.5
me$^{\varepsilon}$*hiwili'*$^{u\varepsilon}$ he came running this way

Not infrequently *me*$^{\varepsilon}$- conveys the fuller idea of COME TO ———, as in:

me$^{\varepsilon}$*bēp'xip'* come (pl.) and chop for me! 90.16

8. ***wī-*** AROUND:

wī$^{\varepsilon}$*īt'ge'ye*$^{e\varepsilon}$*xi* they are surrounding me (48.13; 190.14)
wī*t'ge'ye*$^{e\varepsilon}$*k'i* they put it round about 176.14

9. ***hawi-*** IN FRONT, STILL:

hawi*yãnt'e*$^{\varepsilon}$ I go in front
hawi*yana'*$^{\varepsilon}$*s* front dancer
hawi*baxa'*$^{\varepsilon}$*m* still they come, they keep coming 146.1
bõ^{u} hawi*dɐgü'lk!alxdã*^{a} after a while it will blaze up (*bõ*^{u} = now)

10. ***wa-*** TOGETHER:

wa*k!oyõxinik'* we go together
wa$^{\varepsilon}$*īts'!o'm*$^{\varepsilon}$*k'* squeeze (your legs) together! (26.5)
bā^{a}wa*wilīk'*^{w} he traveled up along (river) (literally, he went up having it together with him) 21.14
wa*yãnk'*^{w} he followed him (literally, he went having him together with him) 23.11

wat!emēxia$^{u\varepsilon}$ they are assembling together (110.3); 144.23
wa$^{\varepsilon}$īt!oxo'xi he gathered them together 112.6
wat!ilīk'ni she gave them one each 130.4
wā^{a}himi't' he talked to him 59.16; 63.10
da'gaxdek' wa$^{\varepsilon}$alt'geye't'giyi$^{\varepsilon}$n I tied it about my head (literally, my-head I-together-to-surround-it)
p!ā^{a}s wak!e^{e}wa'lxgwa snow is whirling around

Sometimes *wa-* seems to indicate simultaneity of activity, as in:

walā^{a}la'uhi she kept twining basket (while talking) 61.5

In many cases the adverbial meaning of *wa-* is hardly apparent, and one is sometimes in doubt whether to look upon it as the prefix here discussed or to identify it with the instrumental element *wa-* WITH, WITH IT; the two may indeed be at bottom identical.

11. ***bā^{a}-*** UP (55.16; 59.10; 60.11; 63.6,12):

bā^{a}dini'$^{\varepsilon}$x (clouds) were spread out in long strips (literally, they stretched up) 13.3
bā^{a}t!ebe't'e$^{\varepsilon}$ I get up 186.14; (196.1)
bā^{a}wadawaya'k'^{w} he flies up with it
bā^{a}yānk'^{w} he picked it up 15.9; 24.3; 59.15
k!iyī^{i}x bā^{a}wõk' smoke comes out (literally, up-arrives) 29.3
(dānxda) ba$^{\varepsilon}$algwili's he turned up (his ear)
(dak'wilī) bā^{a}gini'$^{\varepsilon}$k' he went up (on top of house) 30.6
bā^{a}s·ā'$^{\varepsilon}$s· stand up!
bā^{a}yewe'$^{i\varepsilon}$ he got better (literally, he-up-returned) (15.2)
bā^{a}hawa'$^{\varepsilon}$k' she dipped up (water)

12. ***ba-i-*** OUT, OUT OF HOUSE, OUT OF WATER TO LAND, FROM PLAIN TO MOUNTAIN:

ba-iyewe'$^{i\varepsilon}$ they went out again
ba-ixodo'xat' she took off (her garment) 13.4
ba-isili'xgwa he lands with (boat) 13.5
ba-isãk'^{w} he came to land
ba-i$^{\varepsilon}$a'lyowo$^{\varepsilon}$ he looked outside
ba-ihimima'$^{\varepsilon}$n I drive him out
ba-i gwidi'k'^{w} he threw it out 92.15,16; (haxiya'dat') ba-igwidi'k'^{w} he threw it (from in the water) on to land (31.2)
ba-ibiliwa't' you jumped out of house 24.15; (46.6)
(hadedẽ) ba-iyeweyini'$^{\varepsilon}$n I took it out (of my mouth) (literally, I-out-caused-it-to-return)
ba-idehenena't' you are through eating (literally, you-out-mouth-are-finished) (132.14)
ba-it!ixi'xi he pulled (guts) out 92.17
(dak's·ō^{u}ma'l) ba-iwõk' he got up (on the mountain) 124.4; (60.9)

In certain idiomatic turns the primary signification of *ba-i-* is as good as lost:

(*he$^{\varepsilon}$l-*)ba-*imats!a'k'* he began to sing (lit., he-song-out-put) 102.17
ba-*ik!iyi'$^{\varepsilon}$k'* he comes 92.1, 2; 156.24; 168.13

13. ***p!a-i-*** DOWN:

p!ai$^{\varepsilon}$*īt!ana'hi$^{\varepsilon}$n* I held him down
p!a-*igwidi'k'^{w}* he threw it down
p!a-*iwaya'$^{\varepsilon}$* he went to lie down, to sleep (lit., he down-slept) 25.9
p!a-*ilohoīt'e$^{\varepsilon}$* I fell down (literally, I down-died)
p!a-*iyewe'$^{i\varepsilon}$* (arrow) fell down back 22.5; 48.14
p!a-i$^{\varepsilon}$*a'lyowo$^{\varepsilon}$* he looked down 26.14
p!ai*yowo'$^{\varepsilon}$* they sat down (literally, they down-were) 56.2
p!a-*isgaya'pxde$^{\varepsilon}$* I lay down

14. ***aba-i-*** IN HOUSE, INTO HOUSE

It would perhaps be best to consider this an independent adverb (demonstrative pronoun *a-* THIS + *ba-i-*, formed analogously to *eme$^{\varepsilon}$* HERE [= demonstrative adverb *e-* HERE + *me$^{\varepsilon}$*]); its correlative relation to *ba-i-* makes it seem advisable to give examples of its occurrence here:

abai*gini'$^{\varepsilon}$k'* he went inside 25.8; 27.7,13; 64.3
abai*hiwili'$^{u\varepsilon}$* he ran inside 16.12
aba-*iwõk'* they went into house 29.6; (44.7); 160.19
aba-*iyowõt'e$^{\varepsilon}$* I stay at home
abai*ts!ā^{a}k'ts!a'$^{\varepsilon}$k'* he stepped into house 31.3

15. ***bam-*** UP INTO AIR

This prefix occurs often with preposed elements *gel-* or *dī^{i}-* as *gelbam-* or *dī^{i}bam-*, which would seem to mean respectively WITH BELLY SIDE UP and WITH BACK SIDE UP, or IN FRONT OF and DIRECTLY OVER one:

bam*gwidi'k'^{w}* he threw it up
gelbam*gwidi'k'^{w}* he threw it up
dī^{i}bam*gwidi'k'^{w}* he threw it up
gelbam*sãk'^{w}* he shot it up 22.5
gelbam$^{\varepsilon}$*a'lyowo$^{\varepsilon}$* he looked up
gelba'm*s·i$^{\varepsilon}$ulī* he was sitting up (in tree) 48.7

16. ***xam-*** IN RIVER, INTO WATER, FROM MOUNTAIN TO PLAIN:

xam*alts!ayãp'* he washed himself in river
xam*gwidi'k'^{w}* he threw it into river (33.6); 108.5
xam*hiwili'$^{u\varepsilon}$* he ran to river 29.13; 94.16
xa'm*hilãp'iauk'* they became in river (=were drowned) 166.16
xam$^{\varepsilon}$*a'lyowo$^{\varepsilon}$* he looked down from top of mountain 124.4 (contrast p!ai$^{\varepsilon}$*a'lyowo$^{\varepsilon}$* he looked down from ground 26.14)

§ 38. INSTRUMENTAL *wa-*

It is somewhat difficult to classify this prefix, as it does not belong either to the body-part or the purely local group. Strictly speaking it should be considered the incorporated form of the demonstrative pronoun in its instrumental function. As was seen above, it may represent an instrumental noun, but, while the noun may itself be incorporated to denote the instrument, this is not the case with the demonstrative pronoun. For example:

ga wede yap!a-wa-dõmhiga^{ɛ} that not I-people-with-shall-kill (=I shall not kill people therewith)

In other words, it would seem likely that such a form as *ga al^{ɛ}wa-ts!ayagi'^{ɛ}n* I WASH HIM WITH THAT is related to an *al^{ɛ}wats!ayagi'^{ɛ}n* I WASH HIM WITH IT as, e. g., *xi al^{ɛ}wats!ayagi'^{ɛ}n* I WASH HIM WITH WATER, to the form *alxits!ayagi'^{ɛ}n* I WATER-WASH HIM, i. e., the *wa-* in *al^{ɛ}wats!ayagi'^{ɛ}n* is to be regarded as an incorporated *ga* THAT, IT (such forms as **algats!ayagi'^{ɛ}n* have never been found to occur). It will be noticed that the verb-forms with incorporated *wa-* are normally characterized by a suffixed *-i-* or *-hi-*; as soon, however, as the verb loses its instrumental "face," this *-i-* is replaced by the normal *-a-*. Thus:

wilau wats!ayagi'^{ɛ}n arrow I-shoot[1] -him-with-it (with incorporated *wa-*, *wila'u* ARROW being outside the verb-structure and in apposition with *wa-*)

but:

ts!ayaga'^{ɛ}n wi'lau wa' I-shoot-him arrow with (in which also *wa-* stands outside the verb-complex, acting as an instrumental postposition to *wila'u*)

Examples of instrumental *wa-* are:

(*salxdek'*)*sal^{ɛ}*wa*lats!agi'^{ɛ}n* I touched him with my foot (literally, my-foot I-foot-with-it-touched-him)

(*xī^{i}*)wa^{ɛ}*ū^{u}gwa'nhi* I drink (water) with it

(*yap!a*)wat*!omomi'^{ɛ}n* I kill (people) with it (but *yap!a t!omoma'^{ɛ}n* I kill people)

*al*wats*!eyēk'wide^{ɛ}* I washed myself with it

*ga his dõ^{u}mia gel*wa*gulugwi'^{ɛ}n* I try to kill him with that (literally, that trying killing-him I-with-desire-it)

*se^{ɛ}l-*wats*!elelamda^{ɛ}n* I write with it

(*īūxde'k'*)wa*gaya-iwi'^{ɛ}n* I used to eat with (my hands)

[1] Aorist *ts!ayag-* SHOOT and aorist *ts!ayag-* WASH are only apparently identical, being respectively formed from stems *sāag-* and *ts!āig-*.

(*p'im*)wa*sana'hink'* they will spear (salmon) with it 28.15 (cf. *sana'nk'* they will spear it)

Although, as was suggested before, the prefix *wa-* as instrument may be ultimately identical with the adverbial *wa-* TOGETHER (the concepts of DOING SOMETHING WITH, BY MEANS OF IT and DOING SOMETHING TOGETHER WITH IT are not very far removed), the two can not be regarded as convertible elements. This is clearly brought out in such forms as *bēm* wa^{e}*ī*wa*t!oxo'xi*^{e}*n* I PICKED THEM TOGETHER WITH STICK. Literally translated, this sentence reads, STICK I-TOGETHER-HAND-WITH-IT-PICKED-THEM; the first *wa-* is the adverbial prefix; *ī-*, the general instrumental idea conveyed by the character of the verb (GATHER WITH ONE'S HANDS); and the second *wa-*, the incorporated representative of the more specific instrument *bēm* STICK. If preferred, *ī-* may be interpreted, though less probably, as a local element (*-īwa-* =with it in hand).

2. *Formation of Verb-Stems* (§§ 39, 40)

§ 39. GENERAL REMARKS

By a verb-stem will be here understood not so much the simplest possible form in which a verb appears after being stripped of all its prefixes, personal elements, tense-forming elements, and derivative suffixes, but rather the constant portion of the verb in all tense and mode forms except the aorist. The verb-stem thus defined will in the majority of cases coincide with the base or root, i. e., the simplest form at which it is possible to arrive, but not always. Generally speaking, the aorist is characterized by an enlargement of the base that we shall term "aorist stem," the other tense-modes showing this base in clearer form; in a minority of cases, however, it is the aorist stem that seems to coincide with the base, while the verb-stem is an amplification of it. Examples will serve to render these remarks somewhat clearer:

Aorist stem	Verb-stem	Probable base
t!omom-	*dōum-*	*dōum-* kill
naga-	*nāag-*	*nāag-*(*nag-*) say to
hāal-	*hala-*	*hāal-* answer
ōud-	*odo-*	*ōud-* hunt for
lohoi-	*loho-*	*loh-* die
yuluyal-	*yulyal-*	*yul-* rub

By far the larger number of verbal bases are monosyllabic. Where the simplest radical element that can be analyzed out remains dissyllabic (as in *dawi-* FLY, *agan-* PERCEIVE, *yimi-* LEND), the probability is always very great that we have to reckon either with amplifications of the base, or with suffixes that have become so thoroughly amalgamated with the base as to be incapable of separation from it even in formal analysis; in some cases the dissyllabic character of the verb-stem is due to a secondary phonetic reason (thus *dawi-* is for *dawy-*, cf. *dauy-*; while in *agan-* the second *a* is inorganic, the real stem thus being **agn-*). Most bases end either in a vowel or, more frequently, in a single consonant; such as end in two consonants (as *yalg-* DIVE, *s·omd-* BOIL, *bilw-* JUMP) may often be plausibly suspected of containing a petrified suffixed element.

The few examples of verb and aorist stems already given suffice to indicate the lack of simple, thorough-going regularity in the formation of the aorist stem from the base. Given the verb-stem, it is possible only in the minority of cases to foretell the exact form of the aorist stem. Thus, if *dō^{u}m-* had followed the analogy of the phonetically parallel *nā^{a}g-*, we should have in the aorist not *t!omom-*, but *domo-*; similarly, the phonetic similarity of *odo-* and *loho-* would lead us to expect an aorist stem *lō^{u}h-*, and not *lohoi-*, for the latter. Nor is it safe to guess the form of the verb-stem from a given aorist stem. Thus, while the aorist *lohoi-* corresponds to a verb-stem *loho-*, *yewei-* corresponds to *yèu-* RETURN; *nagai-*, to *na-* SAY, DO; and *k!emèi-*, to *k!emn-* DO, MAKE. Mere phonetic form has, indeed, comparatively little to do with determining the relation of the two stems. This is clearly evidenced by the following cases of homonymous but etymologically distinct bases with corresponding aorist stems.

Verb base	Meaning	Aorist stem
heem-	1. mock	*hemeham-*
	2. wrestle	*hemem-*
heegw-	1. work	*hegwehagw-*
	2. relate	*hegw(h)āagw-*, *hegwehagw-*
heen-	1. be finished	*henen-*
	2. wait for	*henee-*
dāag-	1. find	*t!ayag-*
	2. build fire	*t!agāi-*

The signification of the verb-stem gives almost no information as to the form of the aorist stem, the various types of aorist formation being each exemplified by a heterogeneous array of verbs, as far as any discernible similarity of meaning is concerned. It is true that, in a comparatively few cases, certain types of aorist formation can be shown to be characteristic of intransitive verbs; but in these the formation of the aorist stem involves the addition of a distinct phonetic element that has every appearance of being a worn-down suffix.

Not the least remarkable feature of tense-formation lies in the fact that the most frequently used of the tense-modes, the aorist (equivalent to immediate future, present, and past), generally shows the derived or amplified form of the base; while the far less important tense-modes, the future, inferential, potential, and present and future imperatives employ the generally more fundamental verb-stem. In its naked form the aorist stem appears as the third person subject third person object aorist transitive. For example:

t!omõm he killed him
naga' he said to him
-hãl he answered him
õ'ut' he hunted for him

The bare verb-stem appears as the second person singular (third person object) present imperative intransitive and transitive. For example:

dõum kill him!
odo' hunt for him!
na' say! do!

and as the first element of the periphrastic future, that will later receive treatment.

In striking contrast to the extensive use in Athapascan of distinct and unrelated stems for the singular and plural, only a very few such cases have been discovered in Takelma; and even in these the singular stem may, it seems, also be used in the plural.

Sing. verb-stem	Pl. verb-stem	Sing. form	Pl. form
s·as·- stand	*sal-xogw-*	*s·as·inī* he stands	*sal-xogwī* they stand
		bāa-sāasa'sdeᵉ (= *sāas-sas-*) I come to a stand	*bāasal-xo'xiginak'* (= *xog-xag-*) we come to a stand
s·uᵉal- sit	*al-xalīᵉ*	*s·uᵉwilīt'eᵉ* (= *s·uᵉalī-*) I am seated	*al-xalīyaŋa'k'* we are seated

§ 39

It is interesting to observe that, while STAND and SIT are intransitive in the singular, the plural stems *sal-xog^{u}-* and *al-xalī^{i}-* make transitive forms with a third personal object (*-ana'k'* first person plural aorist transitive, *-i'k'* intransitive; cf. *t!omomana'k'* we kill him, but *s·as·inīp'ik'* we stand and *s·u^{e}wilīp'ik'* we are seated, dwell, stay).

The great majority of verb-stems are either necessarily transitive or intransitive, or are made such by appropriate suffixes. Only a few cases occur of verbs that are both transitive and intransitive, the respective forms being kept distinct only by the varying pronominal suffixes. Such are:

moyūgw-a'n-t'e^{ɛ} I am spoiled, and *moyūgw-an-a'^{ɛ}n* I spoil him
ligī-n-t'e^{ɛ} I rest, and *ligī^{i}-n-a'^{ɛ}n* I rest him
k!ūwū'^{ɛ} they ran away in flight, and *k!ūwū* he sowed, threw them about

Certain forms are alike for both transitive and intransitive; e. g., second person plural subject: *k!ūwūwa't'p'*.

§ 40. TYPES OF STEM-FORMATION

In looking over the many examples of verb and corresponding aorist stems obtained, it was found possible to make out sixteen types of stem-relations. Of this large number of types about half are of frequent occurrence, while of each of the rest but few examples have been found. It is not claimed for a moment that all of these types should be regarded as being exactly on a par, but merely that they have the value of forming a convenient systematization of the somewhat bewildering mass of methods of radical or base changes encountered. It is very probable that some of these are ramifications of others, while some types show more or less petrified suffixes that for some reason or other became specialized in certain tenses. As comparative linguistic material is entirely lacking, however, we can not make a genetic classification of types; a purely descriptive classification must suffice.

In the following table of types of stem-formation, *c* means consonant; *v*, vowel; *c!*, the fortis correspondent of *c*; c_1, c_2, and so on, other consonants; v^{v} denotes pseudo-diphthong; other letters are to be literally interpreted.

Table of Types of Stem-Formation

Type No.	Formula verb-stem	Formula aorist stem	Example verb-stem	Example aorist stem
1	*v+c*	*vv+c*	*ob-* dig up	*ōub-*
2	*v+(c)*	*v+c+v*	*yo-* be	*yowo-*
3	*v+c+c₁*	*v+c!+v+c₁*	*üüts!-* laugh *masg-* put	*üyüts!-* *matslag-*
4*a*	*vv+c*	*v+c+v+i*	*t'āag-* cry	*t'agai-*
4*b*	*v+c+v*	*v+c+v+i*	*loho-* die	*lohoi-*
5	*v+c+v*	*vv+c*	*yana-* go	*yāan-*
6	*vv+c!*	*vv+c*	*p'ōtl-* mix	*p'ōud-*
7*a*	*c+vv+c₁*	*c!+v+c₁+v*	*dɛɛb-* arise	*t!ebe-*
7*b*	*c+vv+c₁*	*c!+v+c₁+v̄+i*	*dūugw-* wear	*t!ūgūi-*
8	*c+vv+c₁*	*c!+v+c₁+v+c₁*	*gōul-* dig	*k!olol-*
9	*c+vv+c₁*	*c!+v+y+v+c₁*	*ddag-* find	*t!ayag-*
10*a*	*c+v(+c₁)*	*c+v+c(+c₁)*	*lōu-* play	*lōul-*
10*b*	*c+v+c₁*	*c+v+c₁+c(+v)*	*sana-* fight	*saans-*
11	*c+v+c₁+c*	*c+v+c₁+v+c*	*yawy-*talk	*yawai-*
12	*c+vv+c₁*	*c+vv+c₁+c+a+c₁*	*t!ɛu-* play shinny	*t!ɛut!au-*
13*a*	*c+v+c₁+c+a+c₁*	*c+v+c₁+v+c+a+c₁*	*sensan-* whoop	*senesan-*
13*b*	*c+v+c₁+c!+a+c₁*	*c+v+c₁+v+c!+a+c₁*	*düült!al-* stuff with	*düülüt!al-*
13*c*		*c+v+c₁+v+c+c₁*		*lobolb-* be accustomed to pound (also *lobolab-*)
14	*v+c*	*v+c+v+n*	*xeeb-* do	*xeben-*
(15*a*	—	*-āi*	*s·as·an-* stand	*s·as·inīi-*)
(15*b*	*-as*	*-āi*	*dink!as-* lie spread out	*dink!īi-*)
(16	*v+c+c₁+i*	*v+c+v+c₁*	*k!alsi-* be lean	*k!alas-*)

Not all forms find an exact parallel in one of the sixteen types here listed. There is a considerable number of more or less isolated cases left, particularly of frequentative or usitative forms, that it is difficult to classify; but on closer examination some at least of these are seen to be secondary developments. Verb-stem *al-sgalwal(w)-* KEEP LOOKING BY TURNING HEAD SLIGHTLY TO SIDE, as compared to aorist stem *al-sgalā^{a}l(aw)-*, looks anomalous because of its apparently inserted first *-w-;* but these two forms become explicable as frequentative developments, according to Type 8, of their corresponding simplexes, verb-stem *al-sgalw-* LOOK BY TURNING HEAD TO SIDE and aorist stem *al-sgalaw-*. It will be convenient to dispose of such anomalous and difficult cases under such headings as allow them to appear as at least comparatively regular formations. It should not be supposed that a particular verb-stem always and necessarily involves a fixed aorist stem in all possible derivations of the verb, though in probably the larger number of cases such a fixed parallelism may be traced. As examples of the occurrence of more than one aorist stem to match a verb-stem may be mentioned:

verb-stem *-xīk!-* see; aorist Type 6 *-xī^{i}g-* and Type 2 *-xīk!i-xa-* see (without object)

verb-stem *yèu-* return; aorist intransitive Type 4 *yewei-*, causative Type 2 *yewe^{e}-n-*, and, according to Type 8, *yewew-ald-* go back for some one

There are few if any verbs whose verb and aorist stems absolutely coincide. If in nothing else the two differ at least in the quantity of the stem vowel, the aorist stem always tending to show a long vowel. In some cases the two (dissyllabic) stems seem identical in phonetic form because of the persistence of an inorganic *a* in the second syllable of the verb-stem and the presence of a repeated radical *a* in the second syllable of the aorist stem. Sometimes only certain of the forms built on the verb-stem exhibit the inorganic *a;* in such cases the secondary character of the *a* is directly proven by the forms that lack it. A case in point is:

aorist stem *ts'!ayam-* hide; verb-stem *ts'!ay[a]*[1]*m-* and *ts'!a-im-*

Other verbs, however, are phonetically so constituted as to require the presence of the inorganic *a* in all forms derived from the verb-stem. Such are:

aorist stem *agan-* feel, hear; verb-stem *ag[a]n-*
aorist stem *p!ahan-* be ripe, done; verb stem *p!ah[a]n-*

Under such circumstances ambiguous forms may result; e. g., *wa^{e}agani't'* may be construed either as an aorist (YOU FELT IT) or as a potential (YOU WOULD FEEL IT) derived from the stem *ag[a]n-*. But evidence is not lacking even in these cases to prove the inorganic character of the second *a* in the non-aorist forms. One test has been already referred to in another connection—the incapability of a secondary diphthong (a diphthong involving an inorganic *a*) to have a rising accent. Thus:

aorist *dā^{ae}agañ* (-aga'n) he heard it; but imperative *dā^{ae}ag[a']n* hear it!

A second test is the failure of inorganic *a* to become ablauted to *e*. Thus:

aorist p!ehen- *a'nxi* he causes me to be done; but future p!eh[a]n- *a'nxink'* he will cause me to be done

The various types of stem-formation will now be taken up in the order of their occurrence in the table.

[1] Brackets indicate an inorganic element.

TYPE 1. Verb-stem $v+c$; aorist $v^{v}+c$. In this type are embraced partly monosyllabic and partly dissyllabic verb-stems that either seem to undergo no change at all in the aorist or merely lengthen the stem-vowel. The number of verbs that follow the type does not seem to be very great. Examples:

Verb-stem	Aorist stem
woga′$^{\varepsilon}t$‘ he will arrive (196.20)	wõ^{u}k‘ he arrived 47.15
oba′*n* I shall dig it up	õ^{u}ba′$^{\varepsilon}n$ I dug it up (48.7)
yi‘l*t*‘ copulating 86.5	yī^{i}la′$^{\varepsilon}n$ I copulated with her 26.3
ūgwa′*n* I shall drink it (162.17)	ū^{u}gwa′$^{\varepsilon}n$ I drank it 186.3
hogw*ana*′*n* I shall make him run (138.2)	hō^{u}gw*ana*′$^{\varepsilon}n$ I made him run (79.2)
hin$^{\varepsilon}$*x*-nīwa′$^{\varepsilon}s$ coward 76.5; (160.19)	*hin*$^{\varepsilon}$*x*-nī^{i}wa′$^{\varepsilon}n$ I was afraid (17.7)
wī*t*‘*e*^{e} I shall travel (178.11)	wī*t*‘*e*$^{\varepsilon}$ I traveled (90.1)
t!ī^{i}la′*mxade*^{e} I shall go fishing	t!ī^{i}la′*mxade*$^{\varepsilon}$ I went fishing
yimi′*hin* I shall lend it to him (98.14)	yi^{i}miya′$^{\varepsilon}n$ I lend it to him (98.15)
hūli′n*t*‘*e*^{e} I shall be tired out	hū^{u}li′n*t*‘*e*$^{\varepsilon}$ I was tired out (102.1)
hagaī*t*‘*e*^{e} I shall have a cold thrill	hagāī*t*‘*e*$^{\varepsilon}$ I had a cold thrill 166.1
loho*na*′*n* I shall cause him to die	lohō^{u}*na*′$^{\varepsilon}n$ I caused him to die (100.8)
al-ge′yan*de*^{e} I shall turn my face	*al*- geyana′$^{\varepsilon}n$ I turned my face

As regards the accent of the stem syllable, the examples show that, whenever accented, it takes the rising pitch when long, the raised pitch when short (and final). Compare further:

õ^{u}p‘ he dug it up 124.5, 12	*hin*$^{\varepsilon}$*x-nīū* he was afraid
ūk‘^{u} he drank it 162.20	*al-geya*‘*n* he turned his face

TYPE 2. Verb-stem $v+c$; aorist $v+c+v$. If, as seems probable, the second consonant of verbal bases ending in two consonants is in many cases really a petrified suffix, a very large proportion of those verbs that might be listed under Type 3 really belong here, thus making Type 2 probably the most numerously represented of all types. In some forms it is possible to detect the derivative character of the second consonant by a comparison of etymologically related forms that lack it; e. g., in *ts·!elm-* RATTLE (aorist *ts·!elem-*), the *-m-* is shown to be a suffix, though of no determinable signification, because of its absence in the corresponding frequentative *ts·!elets·!al-*. A corroborative phonetic test lies in the treatment of the first consonant of the cluster, in so far as verbs following Type 3 show a fortis in the aorist as against a media or tenuis in the verb-stem, while those

of Type 2 suffer no change in this respect; e. g., verb-stem *wism-* MOVE has aorist according to Type 3, *wits·!im-*, as contrasted with verb-stem *t'gism-* GET GREEN with aorist of Type 2 *t'gisim-* (*t'gism-* should therefore be analyzed as base *t'gis-* + suffix *-m-*). This criterion enables us to pick out an otherwise unsuspected suffix in verbs like *t!ap'g-* FINISH, aorist *t!abag-* (not Type 3, **t!ap!ag-*), but can be applied only where the first consonant of the verb-stem is *s*, *b*, *d*, or *g*. A more general phonetic test would seem to be the position occupied by the inorganic vowel *-a-*. In those cases in which we have most reason to consider the second consonant as part of the base, this *-a-* follows the cluster as "constant" *a*; while otherwise, and indeed in the majority of cases, it is inserted between the two consonants: *wisma't'e*^{e} I SHALL MOVE (base *wism-*), but *t'gisa'mt'e*^{e} I (AS PLANT) SHALL GET GREEN. An application of these various criteria, were sufficient material at hand, would probably show that but a comparatively small number of verbs follow Type 3. Examples of verbs of Type 2 are:

Verb-stem	Aorist stem
*ī-*t!an*i'n* I shall hold him (28.11)	*ī-*t!ana'*hi*^{ɛ}*n* I held him 73.16
*wa-*k!ō^{u}y*a'n* I shall go with him	*wa-*k!oyõ^{ɛ}*n* I went with him (33.15)
o'*sbin* (= ? ok-*s-*) I shall give it to you (178.15)	ogu'*sbi*^{ɛ}*n* I gave it to you 23.3
oi*na'n* I shall give it	oyo*na'*^{ɛ}*n* I gave it (180.20)
yãl*xaldan* I shall lose it (188.18)	yalã*xalda*^{ɛ}*n* I lost it (77.10)
yo'*t'e*^{e} I shall be (33.10)	yowõ*t'e*^{ɛ} I was (42.1)
nãk'*ink'* he will say to him (94.16)	naga' he said to him 180.7
*da-*sgāī*pxde*^{e} I shall lie down	*da-*sgaya'*pxde*^{ɛ} I am lying down
t'ū^{u}*ga'*^{ɛ}*t'* it will get hot	t'ūwū'^{ɛ}*k'* it got hot 94.15
s·om*da'n* I shall cook it	s·omo*da'*^{ɛ}*n* I cooked it (58.10)

Examples illustrating the intrusive *-a-* are:

Verb-stem	Aorist stem
bil*a'ut'e*^{e} I shall jump (160.17)	bili*ūt'e*^{ɛ} I jumped[1] (45.14)
mīl*ada'n* I shall love her	mīlī'*da'*^{ɛ}*n* I love her
k!iy*a'k'de*^{e} I shall come 196.1	-k!iyi'*k'de*^{ɛ} I came (156.24)
gin*a'k'de*^{e} I shall go somewhere 14.3	gini'*k'de*^{ɛ} I went somewhere 21.10
dūw*a'k'de*^{e} I shall be good	dūwū*k'de*^{ɛ} I was good (146.7)

[1] Perhaps best considered as belonging to Type 3 (verb-stem *bilw-*).

Verb-stem	Aorist stem
xum*a′k‘ de*^{e} I shall be satiated	xumū′*k‘de*^{ɛ} I was satiated (130.18)
wiy*a′k‘de*^{e} I shall groan	wiyi′*k‘de*^{ɛ} I groaned (192.11)
xud*a′mt‘e*^{e} I shall whistle	xudu*m̃t‘e*^{ɛ} I whistled (33.16)
ts·!el*a′mt‘e*^{e} I shall rattle	ts·!ele*m̃t‘e*^{ɛ} I rattled (102.13)
ts·!us.*a′mt‘e*^{e} I shall make whistling noise by drawing in breath between teeth and lower lip	ts·!us·u*m̃t‘e*^{ɛ} I made whistling noise (78.9,10,12)
lī^{i}g*a′nt‘e*^{e} I shall rest	lig*īnt‘e*^{ɛ} I rested (79.2,4)
yal*a′nt‘e*^{e} I shall be lost (cf. 14.3)	yal*añt‘e*^{ɛ} I am lost (note difference in accent between aorist and future)

It is to be understood, of course, that this *-a-* is in no sense a characterizing future or non-aorist element, as, when the phonetic conditions allow, it drops out altogether. This takes place when the consonant following the intrusive *–a–* is itself followed by a vowel. Thus the second person singular future (*-ada′*^{ɛ}) of some of the verbs listed has no *-a-*: *bilwada′*^{ɛ}, *gingada′*^{ɛ}, *dū^{u}gada′*^{ɛ}, *wī^{i}gada′*^{ɛ}, *yalnada′*^{ɛ}. Similarly the simple stem *xud-* WHISTLE appears in *xut‘ma′*^{ɛ}*s* WHISTLER.

In regard to vocalic quantity it will be observed that the verbs of this type divide themselves into two classes—those with short verb-stem vowel (such as *t!an-, og-, s·om-d-, gin-g-, yal-n-*) and those with long verb-stem vowel (*k!ō^{u}y-, yāl-x-ald-, lī^{i}g-[a]n-, t‘ū^{u}-g-, mīl-[a]d-*). The first and second stem vowels of the aorist of verbs of the first class are regularly both short (*t!ana-, ogo-, s·omo-d-, gini-g-, yala-n-*); the aorists of the second class seem generally to have a short first but long second vowel (*k!oyō^{u}-, yalā^{a}-x-ald, ligī^{i}-n-, t‘ūwū^{u}-g-, mīlī^{i}-d-*). The verb *nā^{a}g-* (aorist *naga-*) SAY TO and perhaps a few others (*sgāi-p-x-*, aorist *sgaya-p-x-*; *al-ts!āi-g-* WASH aorist *al-ts!aya-g-;* but *al-ts!āi-p‘-* WASH ONESELF, aorist *al-ts!ayā^{a}-p‘-*) do not follow this rule. Of the verb *yo-* (aorist *yowo-*) forms of both accent classes are found (*yõt‘e*^{e} as well as *yo′t‘e*^{e}, *yowo′t‘e*^{ɛ} as well as *yowõt‘e*^{ɛ}), and indeed a lengthening of the second vowel of aorists of the first class seems to occur with considerable frequency. The rising for long and the raised for final short stem vowels seem to be the normal accents for verbs of Type 2, whether the stress falls on the first or second (in aorists) vowel. If, however, the accented vowel is followed by a

glottal catch or fortis consonant the accent, as generally in such a case, is a falling one. Thus:

s·ō′$^{u\varepsilon}$k‘ôp‘de^{e} I shall jump (148.8)) s·owō′$^{u\varepsilon}$k‘ôp‘de^{e} I jump (48.15; 49.1)

Such forms as *wa-k!oyõ$^{\varepsilon}$n* are only apparently opposed to the rule (see § 65).

TYPE 3. Verb-stem $v + c + c_1$; aorist $v + c! + v + c_1$. The most satisfactory test of a verb of this type is the intervocalic fortis consonant of the aorist stem as contrasted with the corresponding non-fortis consonant of the verb-stem. As only the minority of base-final consonant-clusters begin with a consonant that is capable of being changed to a fortis, there are in the material available only a few verbs to which the test can be applied. Those showing an intervocalic fortis (changed from non-fortis) in the aorist stem are:

Verb-stem	Aorist stem
ī-lasg*i′n* I shall touch it	*ī*-lats!ag*i′$^{\varepsilon}$n* I touched it
masg*a′n* I shall put it (102.15)	mats!ag*a′$^{\varepsilon}$n* I put it 74.13
wism*ada′$^{\varepsilon}$* you will move	wits·!im*a‘t‘* you moved 148.16
yo′k‘y*an* I shall know it (162.6)	yok!oy*a′$^{\varepsilon}$n* I knew it 50.5
lop‘d*ia′$^{u\varepsilon}$t‘* it will rain	lop!od*ia′$^{u\varepsilon}$* it rained 152.11

In other verbs of this type the only characteristic of the aorist stem is the repetition between the consonants of the cluster of the stem-vowel. The following verb-forms exemplify this group, with the reservation that if in any case the second consonant of the cluster be really a suffix, the form should be assigned to Type 2.

Verb-stem	Aorist stem
t!amy*ana′n* I shall go to get her married (150.5,19)	t!amay*ana′$^{\varepsilon}$n* I went to get her married (148.5)
ts!a-uy*a′$^{\varepsilon}$s* fast runner 138.2	ts!awaī*t‘^{e}* I ran fast
dī$^{\varepsilon}$-ū′its·!*amt‘* fool him!	*dī$^{\varepsilon}$*üyü′ts·!*amda$^{\varepsilon}$n* I fooled him
baxma′*t‘^{e}*[1] (= *baxm-*) I shall come	baxam̄*t‘$^{\varepsilon}$* I came (114.16)
ga-iw*a′n* I shall eat it 128.18	gayaw*a′$^{\varepsilon}$n* I ate it 30.11
moigw*ana′n* I shall spoil it	moyūgw*ana′$^{\varepsilon}$n* I spoiled it (31.12)
yo′$^{u\varepsilon}$s*nan* I shall scare him (186.10)	yowo′$^{\varepsilon}$s*na$^{\varepsilon}$n* I scared him (186.10)
malg*ini′n* I shall tell him	malag*ini′$^{\varepsilon}$n* I told him (30.15)
*ba-i-*xilgw*i′n* I shall snatch it out	*ba-i-*xiligw*i′$^{\varepsilon}$n* I snatched it out (33.4)

[1] This verb clearly belongs to Type 3 because of constant *-a-* following *-xm-*. Had it belonged to Type 2 it would have assumed the form **baxa′mt‘e^{e}*.

Verb-stem	Aorist stem
gwel-leīs*de*^{e} I shall be lame	*gwel*-le′ye^{e}s*de*^{e} I am lame
dawīt′*e*^{e} I shall fly (166.18)	dawaīt′*e*^{e} I flew (166.18)
da-uya′^{e}s flyer	
ba-i-hemg*a′n* I shall take (food) out (16.10)	*ba-i*-hemeg*a′*^{e}*n* I took (food) out (58.9; 118.12)
han-gī^{i}lb*a′n* I shall put (beam) across	*han*-gilib*a′*^{e}*n* I put (beam) across (176.3)
ba-i-k!ā^{a}ls*i′n* I shall take it out	*ba-i*-k!ala′s*i*^{e}*n* I took it out (25.4)
p′elg*a′n* I shall go to war against them (124.19)	p′eleg*a′*^{e}*n* I went to war against them (110.4)
yamd*a′n* I shall ask him (70.6)	yamad*a′*^{e}*n* I asked him (56.3)
yi′ms·*aldan* I shall dream about him	yimi′s·*alda*^{e}*n* I dreamed about him 186.3
ha-u-ha′n^{e}s*dā*^{a} it will stop (raining) (198.9)	*ha-u*-hana′^{e}s it stopped (raining) 196.8
yō^{u}g*a′n* I shall marry her (192.16)	yowog*a′*^{e}*n* I married her (43.3)

As long as the first consonant of the cluster is a semivowel (*w*, *y*) or a liquid or nasal (*l*, *m*, *n*), the question as to whether the verb belongs to Type 2 or Type 3 is a purely etymological or historical one. Descriptively it makes no difference whether a form like *p′elega′*^{e}*n* I WENT TO WAR AGAINST THEM is derived from *p′eleg-* by the insertion of the stem-vowel *-e-* between *l* and *g* (Type 3), or from *p′el-g-* by the addition of the *-e-* to a base *p′el-* (Type 2). From a purely descriptive point of view, then, the most typical aorist formation in Takelma may be said to be characterized by the repetition of the stem-vowel immediately after the first consonant following the stem-vowel.

From the point of view of vocalic quantity the verbs of Type 3 fall into the same two classes as those of Type 2—such as have a short vowel in the stem (*t!amy-*, *ts!awy-*, *malg-*, *p′elg-*, *hants!-*) and such as have a long vowel (*ūits·!-*, *gī^{i}lb-*, *k!ā^{a}ls*), these latter being apparently much less numerous than in Type 2. The quantity of both the stem vowels of the aorist is regularly short, even when the verb-stem vowel is long (*gilib-*, *k!alas-*); only rarely is the second vowel of the aorist stem long (*leye^{e}s-*, *üyü^{ü}ts·!-*). The accent of stressed stem vowels follows the same rules as in the case of verbs of Type 3 (*dowaīt′e*^{e}, *han-gili′p*$^{‘}$ with rising or raised pitch; but *hana′*^{e}*s*, *he′*$^{i\text{e}}$*x-dā*^{a} HE WILL BE LEFT OVER, *üyü′*$^{ü\text{e}}$*s·de*^{e} I LAUGH, with falling accent because of the glottal catch).

TYPE 4. Verb-stem $v^v+c(+v)$; aorist $v+c+v+i$. Verbs of this type are intransitive, the *-i-*, though confined to the aorist, being evidently in some way connected with the intransitive character. That it is really a derivative element characteristic of the aorist is shown by its conduct in transitive forms derived from the intransitive. In the causative in *-n-* it drops out:

t'agā^a*na'*^{ɛ}*n* I make him cry

while in certain other transitive derivatives it is preserved:

t'agay*agwa'*^{ɛ}*n* I cry having it

The contradiction in treatment is here only apparent, as the absence or presence of the *-i-* would seem to depend not so much on the transitive or intransitive form of the verb as on whether the action expressed by the verb is logically transitive or not (in a causative the action is necessarily directed toward an object, in a comitative the formal object is not concerned in the action of the verb at all). Types 4*a* and 4*b* may properly be considered subclasses of Types 2 and 1 respectively, though it should be noted that the *-i-* occurs nowhere except in one special tense—the aorist. Examples of Type 4*a* are:

Verb-stem	Aorist stem
yè'ūt'*e*^{e} I shall return (92.24)	yeweīt'*e*^{ɛ} I returned (58.9,13)
p!ãk'*de*^{e} I shall bathe (58.5; 118.7)	p!agaīt'*e*^{ɛ} I bathed 58.2
t'ãk'*de*^{e} I shall cry (29.11)	t'agaīt'*e*^{ɛ} I cried (29.13; 62.2)
na'*t'e*^{e} (irregular) I shall say, do 196.5	nagaīt'*e*^{ɛ} I said, did 126.3; 180.1

Even less numerous are the examples of 4*b* that have been found:

Verb-stem	Aorist stem
loho'*t'* dead (98.10; 170.1; 186.21)	lohoīt'*e*^{ɛ} I died 184.18
lehe'*t'* drifting dead to land	lehe'^{iɛ} he drifted dead to land 75.5

The aorist of verbs of Type 4 regularly have the rising accent on the *i-* dipthong formed by the repeated stem vowel and the *i-* suffix. The stressed stem-vowel of forms built on the verb-stem regularly has the rising (4a) or raised accent (second vowel of 4b). *nā-*, which is irregular also in other respects, has a short vowel in the verb-stem and takes the raised accent in non-aorist forms under appropriate conditions (*na't'* saying; *na'* say it!).

TYPE 5. Verb-stem $v+c+v$; aorist v^v+c. This type of verb is morphologically very difficult to understand, as it is in effect the very opposite of Type 2. Morphologically *yana-* GO : *t!an-* HOLD = *yā^{a}n-* :

t!ana-; but phonetically the proportion would gain in symmetry by reversing the positions of its first and third terms. Examples are:

Verb-stem	Aorist stem
waga*wi'n* I shall bring it to him (45.6)	wā^{a}g*iwi'*$^{\varepsilon}$*n* I brought it to him (176.17)
wege'*sink*' he will bring it to me	we^{e}g*a'si* he brought it to me (194.11)
yana'*t*'*e*^{e} I shall go 14.3	yãn*t*'*e*$^{\varepsilon}$ I went 14.7
haxa'*t*'*e*^{e} I shall burn (92.29)	hãx*de*$^{\varepsilon}$ I burnt (98.1,4)
dak'-*da*-hala'*hin* I shall answer him	dak'-da-hā^{a}l*i'*$^{\varepsilon}$*n* I answered him (122.4; 146.14; 180.18)
laba' carry it! (70.5); 192.8	lãp' he carried it 160.9
sagwa' paddle it! 112.3,9	sā^{a}g*wa'*$^{\varepsilon}$*n* I paddled it (14.6)
wede'*k*'*ink*' he will take it from him (16.10,11; 17.10,11)	wẽt'*gi* he took it from him 16.13; (76.1)
lebe'*n* I shall pick it up and eat it	le^{e}b*a'*$^{\varepsilon}$*n* I picked and ate it 94.5,12
sebe'*n* I shall roast it (44.6)	se^{e}b*a'*$^{\varepsilon}$*n* I roasted it (118.10)
he$^{e\varepsilon}$-īwi'*xink*' he will go away from me	*he*$^{e\varepsilon}$-īūs·*i* he went away from me (184.14,15)
hawax-xiwi'*t*'*e*^{e} I shall rot (194.8)	*hawax*-xīūt'*e*$^{\varepsilon}$ I am rotting (100.1)
odo'*n* I shall hunt for it (116.7,11)	ō^{u}d*a'*$^{\varepsilon}$*n* I hunted for it (13.9)
woo'*nk*' he will go to get it (162.8)	wõ^{u}*lt*' he went to get it 160.4
p'uyu*mda'n* I shall smoke them out	p'õy*amda*$^{\varepsilon}$*n* I smoked them out (76.11)
yomo'*n* I shall catch up with him (46.7; 136.12,13)	yō^{u}mīy*a'*$^{\varepsilon}$*n* I caught up with him (final -*ī*^{i}- of aorist stem unexplained) (140.14)

The two stem vowels of the verb-stem are always short in quantity, the second regularly having the raised accent (imperatives *yana*', *lebe*', *odo*', *woo*').[1] The long stem vowel of the aorist, when stressed, takes the rising accent. To this latter rule there is one curious exception. The verb *odo-* HUNT FOR always has the falling accent on the $\bar{o}^{u}$ of the aorist ($\bar{o}'^{u}t$' HE HUNTED FOR IT 13.9; 88.8, never *$\tilde{o}^{u}t$'), but the non-aorist forms follow in everything the analogy of other verbs of this type. This anomaly is quite unexplained. Can it be that a leveling out of two originally distinct paradigms has taken place (*$\tilde{o}^{u}d$- , *odo*'- of Type 5 and $\bar{o}'^{u}d$- , *$\bar{o}'^{u}t!$- of Type 6)?

TYPE 6. Verb-stem $v^{(v)}+c!$; aorist $v^{v}+c$. Most of the verbs that follow this type have as second consonant in the aorist one capable of

[1] Such forms as *lebe'n*, with falling accent on the second vowel, are only apparently opposed to this rule, as in these cases the falling accent regularly goes with the personal ending *-n*. Practically all violations of the accent rules found in the examples are of this merely apparent character and will be readily explained away when the subject of personal endings is considered.

becoming a fortis; such as do not, introduce a catch before the second consonant in non-aorist forms. There seem to be no primarily intransitive verbs of this type. Examples of the type are:

Verb-stem	Aorist stem
ī-kʻwā′^{a}k!w*in* I shall wake him up	*ī*-kʻwā′^{a}gw*i*^{ɛ}*n* I woke him up 16.4; (75.6)
kʻwā′^{aɛ}*xde*^{e} I shall wake up (190.5)	kʻwā′^{a}*xde*^{ɛ} I woke up (16.3, 5)
xā^{a}-lā′t!*an* I shall put it about my waist	*xā*^{a}-lā′^{a}d*a*^{ɛ}*n* I put it about my waist
la-^{ɛ}*ī*-tʻbā′k!*in* I shall burst it (118.5)	*la*-^{ɛ}*ī*-tʻbā′^{a}g*i*^{ɛ}*n* I burst it (24.17)
wa-sgā′p!*in* I shall make it tight	*wa*-sgā′^{a}b*i*^{ɛ}*n* I made it tight (140.6)
al-xī′k!*in* I shall see him (146.21)	*al*-xī′^{i}g*i*^{ɛ}*n* I saw him 188.9
de^{ɛ}-*ī*-wī′k!*in* I shall spread it out (120.1)	*de*^{ɛ}-*ī*-wī′^{i}g*i*^{ɛ}*n* I spread it out
dakʻ-tʻe′^{e}k!*in* I shall give him to smoke (170.13)	*dakʻ*-tʻe′^{e}g*i*^{ɛ}*n* I gave him to smoke
bā^{a}-xō′t!*an* I shall win over him (170.9)	*bā*^{a}-xō′^{u}d*a*^{ɛ}*n* I won over him (168.5)
al-lō′k!w*an* I shall thrust it	*al*-lō′^{u}gw*a*^{ɛ}*n* I thrust it (152.19)
dal-pʻō′t!*in* I shall mix it (178.5)	*dal*-pʻō′^{u}d*i*^{ɛ}*n* I mixed it
de^{ɛ}-*ī*-nū′t!*in* I shall drown him	*de*^{ɛ}-*ī*-nū′^{u}d*i*^{ɛ}*n* I drowned him (118.9)
de-bū′k!*in* I shall fill it	*de*-bü′^{ü}g*i*^{ɛ}*n* I filled it (140.3)
ī′-gī^{ɛ}na take it! (102.14)	*ī*-gī′^{i}na he took it 15.1; 45.13

Despite the change of the second consonant from fortis to non-fortis, it is not certain that it is always an integral part of the stem; in *de-bü′^{ü}gi^{ɛ}n* the *g* (*k!*) seems to be a verbifying suffix (cf. *de-bü′$_{ɛ}$* FULL as adjective). The accent of the base of verbs of Type 6 differs materially from that of verbs of types heretofore discussed. The normal pitch-accent of most verb-bases is the rising tone for long, the raised for final short, vowels, unless a catch immediately follows. Thus in Type 5 *dakʻ-da-hāl* HE ANSWERED HIM; Type 2 *nagaʻ* HE SAID TO HIM; but with catch Type 4 *naga′^{iɛ}* HE SAID. The verbs, however, of Type 6, as will have been noticed, all have the falling accent in both aorist and non-aorist forms. This variation from the accentual norm becomes intelligible if we remember that a fortis is the equivalent of a catch + a media; e. g., *alxī′k!in* I SHALL SEE HIM; *alxī′^{ɛ}kʻ* SEE HIM! As the catch tends to bring about a falling accent before it, the falling accent peculiar to verbs of Type 6 may plausibly be ascribed to the fortis (i. e., glottal catch) quality of the final consonant of the stem. Compare also, in Type 3, *he′ik!in*

I SHALL LEAVE IT OVER. The retention of the falling accent in the aorist, although the presumable cause of it has been removed, is an example of form-parallelism, and argues, at least in verbs of this type, for the secondary origin of the aorist stem. The relation between *xō'tłan* and *xō'ᵘdaᵉn* is, then, the same as that which obtains between *yowo'ᵉ* HE WAS and *yowō'ᵘdaᵉ* WHEN HE WAS 79.7.

The organic character of the fortis consonant of verbs of this type is still further evidenced by many derivative forms (iteratives, continuatives, *-xa-* forms used to imply lack of object) which are regularly derived from the verb-stem, not the aorist stem, even in their aorist forms. Thus from *sgō'ᵘtł-* 45.10 (aorist *sgō'ᵘd-* 72.10) CUT are derived the derivative aorists *sgotłō'sgadeᵉ* I CUT FREQUENTATIVELY (62.1), *sgotłōł-haᵉn* I KEEP CUTTING IT (108.8), *sgütłü'xadeᵉ* I CUT (without object) (92.2). Parallel forms are derived from most other verbs of this type, such as *xī'ⁱk!-*, *lō'ᵘk!-*, *sgī'ᵗp!-* CUT, *sge'ᵉt!-* LIFT UP. A few verbs of Type 6, however, form the aorists of these derivatives from the aorist stems of the simple verbs. Such forms are the frequentatives *t'baga't'bag-* 14.12 (from *t'ba'ᵃk!-* 136.20) and *sege'sag-* 172.10 (from *se'ᵉk!-* NOD TO, OPEN DOOR 138.18).

TYPE 7. Verb-stem $c+v^{v}+c_1$; aorist $c!+v+c_1+v(+i)$. The second sub-group (7*b*) of this sparsely represented type of verbs is apparently related to the first (7*a*) as are verbs of Type 4*a* to those of Type 2. It is very improbable, however, that the characteristic *-i-* element of the aorist is morphologically the same in both Type 4 and Type 7*b*, as verbs of the latter type are clearly transitive, while in Type 4 the *-i-* was found to be a clearly intransitivizing element. A further difference between the two types lies in the marked length of the repeated vowel in verbs of Type 7*b*. This vocalic length is perhaps responsible for the loss of the *-i-* in certain forms; e. g., *dī-tłūgūᵘ* HE WORE IT, but *dī-tłūgūᵉn* I WORE IT. (See § 65.)

Of Type 7*a* only the following examples have been found:

Verb-stem	Aorist stem
bāᵃ-dēp'*deᵉ* I shall arise 196.3	*bāᵃ*-tłebe'*t'eᵉ* I arose 186.14
wa-dīł*nhin* I shall distribute them	*wa*-tłilī*k'niᵉn* I have distributed them (130.4)
dweᵉp'dwa'p*xdāᵃ* they will fly without lighting	tłwepłe' tłwap*x* they flew without lighting

The last example follows also Types 6 and 13*a*.

To Type 7*b* belong:

Verb-stem	Aorist stem
da-dāk' build a fire!	*da*-t!agāī he built a fire 96.17
dī-dūᵘgʷa'*nk*' she will wear it 55.9	*dī*-t!ügūī she wore it 96.16
t'gwāᵃx*a'nt'gwide*ᵉ I shall tattoo myself	t'gwaxāī*k'wide*ᵉ I tattooed myself
k!āᵃda'*nk*' he will pick them (116.17)	k!adāī he picked them
	swadāī he beat him in gambling

The last three verbs happen to have stems beginning with a consonant or consonant-combination that does not allow of development into a fortis, so that there is no initial modification in the aorist. A few other transitive verbs have aorist stems like those of type 7*b*, but form their non-aorist forms according to other models, as the aorists *k!emèi-* MAKE (only with third personal object; otherwise *k!emeᵒᵉ-n-*, corresponding verb-stem *k!em-n-* of Type 2) and *yehèi-* HEAR SINGING FAR AWAY (verb-stem *yehī'-*). In both aorist and non-aorist forms the stem vowel or long *i*-diphthong, when stressed, bears the rising or raised accent (*k!āt'* PICK THEM! *bāᵃ-t!ebe't'* HE AROSE).

TYPE 8. Verb-stem $c+v^{v}+c_1$; aorist $c!+v+c_1+v+c_1$. The aorist stem of this type is characterized by reduplication of Type 1 (see § 30) combined, wherever possible, with change to fortis of the initial consonant. Examples are:

Verb-stem	Aorist stem
gāīt'*e*ᵉ I shall grow (77.9)	k!ayaī*t'e*ᵉ I grew (77.9)
gōᵘda'*n* I shall bury him (118.3)	k!ododa'ᵉ*n* I buried him (96.16)
gōᵘla'*n* I shall dig it	k!olola'ᵉ*n* I dug it 73.10,14
gūᵘwa'*n* I shall plant it (94.10)	k!ūwūwa'ᵉ*n* I planted it (132.10)
dōᵘma'*n* I shall kill him (178.14)	t!omoma'ᵉ*n* I killed him 71.7
*waᵉ-ī-*dõx*in* I shall gather them	*waᵉ-ī-*t!oxo'x*iᵉn* I gathered them (112.6,11; 192.4)
*ba-i-*dīx*in* I shall pull (guts) out	*ba-i-*t!ixi'x*iᵉn* I pulled (guts) out (92.17)
dāᵃla'*n* I shall crack it	t!alala'ᵉ*n* I cracked it
deᵉgwa'*ldan* I shall watch for him (116.20; 126.20)	t!egwegwa'*ldaᵉn* I watched for him (118.2; 158.12)
*waᵉ-ī-*deᵉmi'*n* I shall gather them (for war)	*waᵉ-ī-*t!eme'm he gathered them (for war) 110.3
bāᵃba'*n* I shall chop it (90.16)	p!ababa'ᵉ*n* I chopped it (90.11)
*dī-*būᵘgwa'*n* I shall start (war, basket) (110.21; 170.10)	*dī-*p!ügügwa'ᵉ*n* I started it
s·āᵃda'*n* I shall mash it	ts·!adada'ᵉ*n* I mashed it (130.23)

Verb-stem	Aorist stem
s·ũmt'*an* I shall boil it (170.16)	ts·!ümũmt'*a*$^{\varepsilon}$*n* I boiled it (170.17)
de$^{\varepsilon}$-ī-s·ībi*n* I shall close door (90.4)	*de*$^{\varepsilon}$-ī-ts·!ibibi*'*$^{\varepsilon}$*n* I closed door (90.5)
ye^{e}gw*a'n* I shall bite him (88.2)	yegwegw*a'*$^{\varepsilon}$*n* I bit him (88.3)
lō^{u}b*a'n* I shall pound them (16.6)	lobob*a'*$^{\varepsilon}$*n* I pounded them (16.9)
lī^{i}m*a'*$^{\varepsilon}$*t*' tree will fall (108.12)	limi'$^{\varepsilon}$m tree fell (108.11)
hēlt'*e*^{e} I shall sing (106.15)	helel̃t'*e*$^{\varepsilon}$ I sang (104.2, 5, 6)

In the transitive verbs of this type the repeated consonant of the aorist is found only when the object is of the third person; otherwise it is dropped, with lengthening of the preceding vowel. Thus:

t!omom̃ he killed him 16.15; but *t!omõxbi*$^{\varepsilon}$*n* he killed you (cf. 178.12)

Before certain intransitivizing derivative suffixes, particularly *-x-* (see §56) and *-xa-* (see §53), the same loss of the repeated consonant of the aorist stem is to be noted. Thus:

p!aba'*p*' he chopped it 90.11; but *p!ebe'xa*$^{\varepsilon}$ he chopped 55.6

wa$^{\varepsilon}$*-ī-t!emem̃* he gathered them together; but *dak*'*-t!emēx* they are gathered together 43.9; 136.11

With *-x-* the preceding vowel is lengthened, with *-xa-* it remains short. The second consonant of the stems of verbs of Type 8 never involves a radical glottal catch, hence the falling accent is never found on either the first or second stem vowel.

TYPE 9. Verb-stem $c+v^{v}+c_1$; aorist $c!+v+y+v+c_1$. This type is not at all a common one. It differs from Type 7*a* in that the added vowel (in every case *a*, as far as the material goes) is put *before* the last consonant of the base, the *y* serving perhaps merely to connect the stem *-a-* and added *-a-*.

Of Type 9, examples are:

Verb-stem	Aorist stem
dā^{a}g*a'n* I shall find it (110.15)	t!ayag*a'*$^{\varepsilon}$*n* I found it (27.12)
sā^{a}g*a'n* I shall shoot him	ts!ayag*a'*$^{\varepsilon}$*n* I shot him (45.13)
da-dāī'*e*^{e} (-dā^{a}y-) I shall go to get something to eat (33.9)	*da*-t!ayaī'*e*$^{\varepsilon}$ I went to get something to eat[1] (75.9)
da-dā^{a}*ldi'n* (=dāi*ld-*, see § 11) I shall go to get it to eat (33.9)	*da*-t!ayal*di'*$^{\varepsilon}$*n* (=t!ayai*ld-*, see § 11) I went to get it to eat (76.9)

[1] This verb might be considered as entirely parallel to *gāay-* (aorist *k!ayai-*) of Type 8. The derivative in *-ld-*, however, seems to prove it to be of Type 9; the *-ld-* forms, if belonging to Type 8, would probably appear as **da*-dā^{a}y*a'ldin*, **da*-t!ayay*a'ldi*$^{\varepsilon}$*n*.

TYPE 10. Verb-stem $c+v\ (+c)\ (+c_1)$; aorist $c+v+\begin{Bmatrix} c\ (+c_1) \\ c_1\ +c \end{Bmatrix}(+v)$. This type embraces the few verbs that form their aorist stem by merely repeating the initial consonant of the verb-stem. Of 10*a*, that is, those that introduce the initial consonant immediately after the stem-vowel, there have been found:

Verb-stem	Aorist stem
lõ^{u}x to play 31.7; (31.6, 8, 9)	lõ^{u}l*t'e*^{e} I played
lã*p'de*^{e} I shall become (25.2)	lã^{a}l*t'e*^{e} I became (also of Type 15*a*) 186.19
lã^{a}w*a'n* I shall twine basket	lã^{a}lw*a'*^{e}*n* I twined basket (61.7)
he^{e}-*ī*-le'(l)*k!in* I shall let him go (182.20)	*he*^{e}-*ī*-le'le*k!i*^{e}*n* I let him go (50.4)

The last verb differs from the others in that it repeats in the aorist both the consonant and the vowel of the verb-stem; it is the only verb known which shows perfect duplication of the verb-stem (assuming the suffixed character of the *-k!-*).[1] Perhaps *-lek!-* is misheard for *-lelk!-*.

The only certain example of 10*b* is:

Verb-stem	Aorist stem
sana' spear it! (33.9)	*sãns* he speared it (110.20)

The verb-stem here is of Type 5. The simple base (*san-*) is best seen in the fully reduplicated *sã^{a}nsa'n-sinia$^{u^e}$* THEY ARE FIGHTING EACH OTHER 23.14. An aorist of Type 10*b* is probably also:

*ha-u-gwen-*yut!i'*hi* (=*yut!y-[*h*]*i*) he gobbled it down (cf. frequentative *yut!uyad-*)

See also aorist *yō^{u}mī^{i}-* under Type 5. Stems of this type are more frequent among nouns than verbs, e. g., *bel̆p'* SWAN (see § 86, 5).

TYPE 11. Verb-stem $c+v+c_1+c$; aorist $c+v+c_1+v+c$. Verbs belonging to this type differ in the aorist from those of the preceding type in that they introduce before the repeated initial consonant also the vowel of the stem, thus approaching in form the more fully reduplicating Type 13. Only a few examples of the type occur:

Verb-stem	Aorist stem
loma'*lt'e*^{e} (*a* is inorganic) I shall choke	lomõl*t'e*^{e} I choked
xalx*a'mt'e*^{e} I shall urinate (cf. *xã^{a}l-am-* urine)	xala'x*amt'e*^{e} I urinated[2]

[1] There are many apparently perfect duplications of verb-stems in *-a-*, but the *-a-* of the second member is never a repetition of the stem-vowel. See Type 12.

[2] This verb is better considered as belonging to Type 13*a*, *xalxam-* and *xalaxam-* being respectively dissimilated from **xanxan-* and **xanaxan-* (see §21).

Verb-stem	Aorist stem
yawī'*t*'*e*^{e} I shall talk (cf. base *yiw-* talk) (126.2)	yawaĭt'*e*^{e} I talked (30.4; 126.2)
	da-bo'k!op'*na*^{e}*n* I made bubbles (base *bōk!-*) 102.22
bā^{e}*-al-*mo'l^{e}*man* I shall turn things over (base *mol*^{e}-)	*bā*^{e}*-al-*mo'lo^{e}*ma*^{e}*n* I turned things over
dā^{a}-ye'hī^{i}*n* I shall go to where singing is heard	*dā*^{a}-yehèī he went where there was singing (see Type 7*b*) 106.10
	legwel*a'mda*^{e}*n* I suck it out of it (186.18)
	lā^{a}mal*a'*^{e}*n* I quarrel with him (27.2)

It is quite possible that many verbs whose verb-stem ends in a consonant identical with their initial consonant (and that one would be inclined to list under Type 2) really belong to Type 11. In such cases as:

ging- go somewhere (aorist *ginig-*)
k!iy[*a*]*g-* go, come (aorist *k!iyig-*)
gel-gul[*a*]*g-* desire (aorist- *gulug-*)

it is not easy to decide whether the final *-g-* is a suffixed element, as in many verbs of Type 2, or a repetition of the initial consonant of the base. As to the genesis of the form in verbs of Type 11, it seems clear that it is only a secondary development of the far more richly represented Type 13. This is indicated by the existence of second forms of Type 13 alongside those of Type 11:

da-bok!oba'k'na^{e}*n* I make bubbles	*yiwiya'ut'e*^{e} I talk (148.9)
mo'lo^{e}*mala*^{e}*n* I turn things over (170.16)	

A form like *mo'lo*^{e}*mat'* YOU TURNED THINGS OVER may go back to a **mo'lo*^{e}*mlat'* (Type 13*b*), itself a reduced form of the fully reduplicating *mo'lo*^{e}*malat'*; but see § 65.

TYPE 12. Verb-stem $c+v^{v}+c_1$; aorist $c+v^{v}+c_1+c+a+c_1$. Verbs of this type form their aorist by reduplicating the verb-stem according to Type 2 (see § 30); the *a* of the second syllable of the aorist stem is regularly umlauted to *i* by an *i* of the following syllable (see § 8, 3a). Morphologically such aorist stems are practically identical with the verb-stems of Type 13*a*, though no further deductions can be drawn from this fact. Contrary to what one might expect, most verbs of the type show no marked iterative or frequentative signifi-

cation. Examples of this rather frequently recurring type are:

Verb-stem	Aorist stem
sana′*n* [1] I shall fight him (28.15)	sā^{a}nsa′nt‘*e*^{ɛ} I was fighting 184.13
he^{eɛ}-*sal*-t‘gū^{u}*ni*′*n* I shall kick it off	*he*^{eɛ}-*sal*-t‘gūnt‘gi*ni*^{ɛ}*n* I kicked it off (24.17)
t!èūt‘*e*^{e} I shall play shinny	t!èut!a′ut‘*e*^{ɛ} I played shinny (47.7)
ī-t!ā^{a}w*i*′*n* I shall catch him (33.8)	*ī*-t!āūt!iw*i*^{ɛ}*n* I caught him 33.4
bā^{a}-dī^{i}g*a*′*n* I shall make it stand up	*bā*^{a}-dīk‘dag*a*^{ɛ}*n* I made it stand up (59.10)
he^{eɛ}-s·wīl*xk*‘ it is torn	*ī*-s·wīls·wil*i*^{ɛ}*n* I tore it (73.3)
ts!ā^{a}g*a*′^{ɛ}*t*‘ he will step	ts!ā^{a}k‘ts!a′^{ɛ}k‘ he stepped 32.9
dā^{ɛ}-*ī*-bō^{u}d*i*′*n* I shall pull out his hair	*dā*^{ɛ}-*ī*-bōt‘bid*i*^{ɛ}*n* I pulled out his hair (194.7)
bā-*ī*-sgā^{a}g*i*′*n* I shall pick it up	*bā*-*ī*-sgāk‘sgig*i*^{ɛ}*n* I picked him up (32.12)
lā^{a}w*i*′*n* I shall call him by name	lā^{a}liw*i*′^{ɛ}*n* I called him by name (for *lā*^{a}-=*lāu*- see § 7) (116.3)

There is a tendency to prevent a long *u*-diphthong of the first syllable of the aorist stem from standing immediately before a diphthong-forming semivowel or consonant (*y*, *w*, *l*, *m*, *n*) of the second syllable. In such cases the *u* is either lost, as in the last example above (dissimilation is also a possible explanation) or a connecting *-i-* is introduced between the *u*, which now becomes *w*, and the following consonant. Examples are:

Verb-stem	Aorist stem
lèū*xink*‘ he will call me by name	le^{e}wila′*usi* [2] he calls me by name 59.7
līūt‘*e*^{e} I shall look (142.18)	liwila′ut‘*e*^{ɛ} [3] I look (59.14)

The stem vowel of verbs of Type 12 is regularly long, and, when stressed, as it generally is in aorist forms, receives the rising accent. The *a* of the second syllable of the aorist stem is stressed only when forming a secondary diphthong with a following repeated radical element, in which case it receives a falling (*lā*^{a}*la*′*uhi* HE CALLED HIM) or raised accent (*he*^{eɛ}-*sal*-*t‘gū*^{u}*nt‘ga‘n*).

[1] The various forms of this verb seem to be made up of three distinct stems. The non-aorist forms of both transitive and intransitive (*sana*′*p‘de*^{e} I SHALL FIGHT) employ a stem (*sana*-) of Type 5. Most aorist forms, including the reciprocal aorist, use the stem *sāansan*- of Type 12 (*se*^{e}*nsa*′*nsi* HE FIGHTS ME; *sā*^{a}*nsa*′*nsinik‘* WE FIGHT EACH OTHER). The stem *sāans*- of Type 10*b* is probably limited to such transitive forms of the aorist as have a third person object (*sāansa*′^{ɛ}*n* I FIGHT HIM; *sāns* HE FOUGHT HIM).

[2] Parallel form, perhaps with iterative significance, to *leela*′*usi*, § 7.

[3] This verb has a short *i* in the first syllable of the aorist, so that, as far as the aorist stem is concerned, it seems to belong to Type 13a. Perhaps it is best considered a verb of mixed type (13a in aorist, 12 in non-aorist).

TYPE 13. Verb-stem $c+v+c_1+c+a+c_1$; aorist $c+v+c_1+v+c+a+c_1$. For *i*- umlaut of the *a* see § 8, 3a. This type embraces a very large number of verbs, chiefly of iterative, usitative, or intensive signification. Of these, some are the iterative or usitative derivatives of simpler verbs; others, again, are hardly found in simpler form, the action they express being of a necessarily repetitive character (e. g., RUB, RATTLE, CHEW); in still others the repetitive idea is not strongly marked or is even absent. Of Type 13*a*, which covers practically the whole number of type-cases, examples will be given under the characteristic stem-vowels.

Verb-stem	Aorist stem
(1) *a:*	
ī-gaxgix*i'n* I shall scratch him	*ī*-gaxagix*i'ᵉn* I scratched him
da-ts!a'lts!il*in* I shall chew it	*da*-ts!ala'ts!il*iᵉn* I chewed it
heᵉᵉ-*ī*-k'a'ᵉp'k'ib*in* I shall chip them off	*heᵉᵉ*-*ī*-k'ap!a'k'ib*iᵉn* I chipped them off (118.11; 120.16)
(2) *e:*	
ī-ts·!e'lts·!il*in* I shall rattle it	*ī*-ts·!ele'ts·!il*iᵉn* I rattled it
ī-he^{e}gwa'k'^{w}*nan* (see § 19) I shall work	*ī*-hegwe'hak'^{w}*naᵉn* I worked
al-gesgas*a'lt'eᵉ* I shall be washing	*al*-gesegas*a'lt'eᵉ* I was washing
se'nsant'*eᵉ* I shall whoop	sene'sant'*eᵉ* I whooped (180.15)
hemhama'*nk'* he will imitate him	heme'ham he imitated him 24.4, 8
(3) *o* (*u*):	
dīⁱ-t'gumt'ga'm squeeze and crack (insects)!	*dīⁱ*-t'gumu'tg'im*iᵉn* I squeezed and cracked (insects)
ī-yulya'l rub it!	*ī*-yulu'yil*iᵉn* I rubbed it
al-p!īⁱ-ts·!u'lts·!al*hip'* do ye put it on fire!	*al-p!īⁱ*-ts·!ulu'ts·!il*iᵉn* I put it on fire (152.20)
(4) *i:*	
ī-smīlsmil*in* I shall swing it	*ī*-smili'smil*iᵉn* I swung it (72.10)
ī-s·wi'ls·wil*in* I shall tear it to pieces	*ī*-s·wili's·wil*iᵉn* I tore it to pieces
ts·!i'nts·!an*xdeᵉ* I shall be angry	ts·!inī'ⁿts·!an*xdeᵉ* I was angry (24.16; 148.15)
ī-s·i'ls·al*hi* distribute it!	*ī*-s·ili's·al*hi* he distributed it 31.1
de-k'iūk'au*k'wan* I shall brandish it before my face (172.11)	*de*-k'iwi'k'au*k'waᵉn* I brandished it before my face (172.12)
yiwiyaw*a'ᵉs* one who talks 148.18	yiwiya'^{uᵉ} he talks, makes a sound 148.9

The verb-stem of the last example seems at first sight identical with the aorist stem, but the second *i* is to be explained as a connective element similar to the *i* of *le^{e}wilau-* above (see under Type 12); *yiwiyawa'$^{\varepsilon}$s* is thus developed from a theoretical **yiwyawa'$^{\varepsilon}$s*.

The verb *k'a$^{\varepsilon}$p'k'ab-* above illustrates a slightly divergent subtype of Type 13*a*. If the final consonant of the stem is a fortis, it appears as a non-fortis (voiceless media or aspirated surd according to the phonetic circumstances) when repeated. This phenomenon is best explained as an example of catch dissimilation; **k'ap!ak'ap!-*, i. e., *k'a$^{\varepsilon}$b$^{\varepsilon}$ak'a$^{\varepsilon}$b$^{\varepsilon}$-* is dissimilated to *k'a$^{\varepsilon}$b$^{\varepsilon}$ak'ab-*, *k'ap!ak'ab-* (see § 22). In non-aorist forms, where the fortis becomes a syllabic final, it naturally gives way to the equivalent catch aspirated surd. Further examples of this subtype are:

Verb-stem	Aorist stem
*ī-*sgō'$^{\varepsilon}$t'sgid*in* I shall cut them one after another (21.2,4)	*ī-*sgot!o'sgid*i$^{\varepsilon}$n* I cut them one after another (144.2,3)
*ha-u-gwen-*yu'$^{\varepsilon}$t'yid*in* I shall gobble them all down	*ha-u-gwen-*yut!u'yid*i$^{\varepsilon}$n* I gobbled them all down (126.10)
*xa-$^{\varepsilon}$ī-*sgī'$^{\varepsilon}$p'sgib*in* I shall cut them through (21.2)	*xa-$^{\varepsilon}$ī-*sgip!ī'sgib*i$^{\varepsilon}$n* I cut them through (22.9; 138.7)
*bā^{a}-*t'e$^{\varepsilon}$k't'a'*xdā^{a}* (=*-ta'g-x-*) they will all bob up	*bā^{a}-*t'ek!e't'a*x* they all bobbed up
*ba-i-di$^{\varepsilon}$-*t'ga'$^{\varepsilon}$st'gā^{a}s stick out your anus! 164.19; 166.1,6	*ba-i-di$^{\varepsilon}$-*t'gats!a't'gis*i$^{\varepsilon}$n* I stuck out my anus (166.8)

In regard to vocalic quantity it will be noticed that both the stem vowel and the repeated vowel are generally short. Comparatively few cases are found with long stem-vowel in non-aorist forms (*he^{e}-gwagw-*, *swī^{i}lswal-*, *sgō$^{u\varepsilon}$t'sgad-*). Indeed the shortness of the vowel of the verb-stem is about the only mark of difference between verb-stems of Type 13 and aorist stems of Type 12. Thus:

ī-s·wi'ls·wal (non-aorist of Type 13) tear it to pieces!; but *ī-s·wī^{i}l-s·wa'l* (aorist of Type 12) he tore it (with one tear)

A few verbs allow the repeated vowel, particularly in third personal forms, to be long; when stressed, as it generally is, it has a falling accent. Besides *ts·!inī^{i}'ts·!anx-* (also *ts·!i'nī^{i}ts·!anx-* or *ts·!i'nits·!anx-* 190.19), may be mentioned:

gwen-hegwe'^{e}hagwanhi he related it to him 57.9; cf. 59.6

p!ülü'^{ü}p!alhi they marched in single file 192.3

In non-aorist forms the vowel, if long and stressed, takes the rising accent; before a glottal catch, however, we regularly have the

falling accent (*sgō'$^{u\varepsilon}$t'sgad-, sgī'$^{i\varepsilon}$p'sgab-*). In the aorist the stress generally falls on the repeated vowel.

Only two verbs have been found that at first sight conform to Type 13 *b*. They are:

Verb-stem	Aorist stem
*de$^{\varepsilon}$-ī-*ge'uk!li*win* I shall tie (a salmon) bowstring-fashion	*de$^{\varepsilon}$-ī-*gewe'k!li*wi$^{\varepsilon}$n* I tied it bowstring-fashion (cf. 88.5)
dū'lt!li*lin* I shall stuff them into it	dülū'lt!li*li$^{\varepsilon}$n* I stuffed them into it (122.19; 138.17)

This curious type of verb is easily explained if we assume that the bases are not *gew-* and *dūl-*, respectively, but *geu$^{\varepsilon}$-* and *dül$^{\varepsilon}$-*. They are, then, strictly comparable to verbs like *sgot!osgad-* discussed above; instead of having a fortis consonant, i. e., a stop with glottal closure, as the final consonant of the base, they have a semivowel or diphthong-forming consonant (*w, y, l, m, n*) as the base final. The verb and aorist stems of *geu$^{\varepsilon}$-* and *dül$^{\varepsilon}$-*, formed according to Type 13 *a*, are theoretically **gew$^{\varepsilon}$gau$^{\varepsilon}$-*, **gewe$^{\varepsilon}$gau$^{\varepsilon}$-* and **dül$^{\varepsilon}$dal$^{\varepsilon}$-*, **dülü$^{\varepsilon}$dal$^{\varepsilon}$-*, respectively. Allowing, as in the case of the forms like *k'ap!ak'ab-* discussed above, for catch dissimilation, these forms are seen to be phonetically equivalent to *geuk!au-*, *gewek!au-* and *dült!al-*, *dülüt!al-*, respectively (see § 12). If the initial consonant of the verb happens not to be a media, then there is no opportunity for the development of a fortis in the second syllable of the verb-stem. It is clear, then, that the following verbs are further examples of Type 13 *b*:

Verb-stem	Aorist stem
*bā^{a}-$^{\varepsilon}$al-*mo'l$^{\varepsilon}$mal*an* I shall turn things over	*bā^{a}-$^{\varepsilon}$al-*mo'lo$^{\varepsilon}$mala$^{\varepsilon}$*n* I turn things over
*dā^{a}-t'mū^{u}gal-*le'u$^{\varepsilon}$liw*in* I shall shake shells in my ears	*dā^{a}-t'mū^{u}gal-*lewe'$^{\varepsilon}$liwi$^{\varepsilon}$*n* I shook shells in my ears 122.2
*ha-u-gwen-*yu'n$^{\varepsilon}$yin*in* I shall gobble them down	*ha-u-gwen-*yunu'$^{\varepsilon}$yini$^{\varepsilon}$*n* I gobbled them down (cf. *yut!uyad-* above)

The stem syllable of verbs of Type 13 *b*, when bearing the stress, naturally have the falling accent.

Examples of Type 13 *c* are not common and have also by-forms of Type 13 *a*:

Verb-stem	Aorist stem
gwida'k'^{w}d*an* I shall throw it (*a* inorganic)	gwidi'k'^{w}da$^{\varepsilon}$*n* I threw it (122.13); cf. *ī-*gwidigwidi'$^{\varepsilon}$*n* (108.21)
	lobo'lp'*na$^{\varepsilon}$n* I used to pound them; cf. lobo'lap'*na$^{\varepsilon}$n* (57.14)

It is very probable that the *-a-* in the second member of reduplicated stems (Types 12 and 13) is the inorganic *-a-* we have already met with. Its persistence, even in cases where the otherwise resulting phonetic combination is a possible one, may be ascribed to the analogic influence of the probably larger number of cases where its presence is phonetically necessary.

TYPE 14. Verb-stem *v+c;* aorist *v+c+v+n.* The *-n* of the few verbs that make up this class is probably a petrified derivative element, yet it must be considered as characteristic of the aorist stem in an even more formal sense than, for example, the aoristic *-i-* of Type 4. The only examples that have been found are:

Verb-stem	Aorist stem
xēp'*de*^{e} I shall do so (110.22)	xebeñt'*e*^{e} I did so (14.10; 168.10)
waīt'*e*^{e} I shall sleep (71.15; 142.14)	wayānt'*e*^{e} I slept (188.22)
*gwen-*p!īk'*wan* (=-p!iy-) I shall lie on pillow	*gwen-*p!iyi'nk'*wa*^{e}*n* I lay on pillow
p!è'^{e}*t*' he will be lying down 146.9	p!eyēnt'*e*^{e} I was lying down 71.5

The last verb seems to insert a *-y-* in the aorist, between the *-e-* of the verb-stem and that of the aoristic addition, in the manner of verbs of Type 9*b*. In regard to vocalic quantity these verbs differ among themselves. The verb-stem of all but *wai-* is long in vocalism. The first vowel of the aorist stem is short in every case, the repeated vowel is sometimes short (*xeben-*, *p!iyin-*), sometimes long (*wayā*^{a}*n-*, *p!eye*^{e}*n-*. The stressed stem vowel bears a rising accent.

The *-n* of *wayā*^{a}*n-* and *p!eye*^{e}*n-* is eclipsed before a catch in the third person:

waya'^{e} he slept 152.22; 154.6
p!eye'^{e} he was lying down 49.5

but:

xebe'^{e}*n* he did it 78.9; 118.14

The loss of the *-n* takes place also in the third person aorist of *yā*^{a}*n-* GO (Type 5). Thus:

ya'^{e} he went 15.3,11; 59.1; 92.26

subordinate form *yā'*^{a}*da*^{e} 58.8 and (rarely) *yā'*^{a}*nda*^{e} WHEN HE WENT.

TYPE 15. Verb-stem $\left\{\begin{matrix}— \\ —\ \textit{-as}\end{matrix}\right\}$; aorist stem *-ī*^{i}. The ending *-ī*^{i}*-*, found in a considerable number of verbs of position, is not, properly speaking, a stem-forming element at all, as shown by the fact that

suffixed elements may intervene between it and the base; yet, being wanting in the non-aorist forms of many verbs, it has something of the appearance of such. The non-aoristic *-as-* of a few verbs has absolutely no appreciable derivative force, and may be regarded as a purely formal element characterizing the non-aorist forms of the verb. As examples of Type 15*a* may be given:

Verb-stem	Aorist stem
s·a′s·ant‘e^{e} I shall stand (cf. 23.6)	s·as·inīt‘e^{e} I stand (34.1; 77.9)
s·u′^{e}alt‘e^{e} I shall sit (55.11; 186.21)	s·u^{e}wilīt‘e^{e} I sat (21.1; 178.21)
k‘e′p‘alt‘e^{e} I shall be long absent	k‘ebilīt‘e^{e} I was long absent (124.20)
lāp‘de^{e} I shall become (92.11; 166.14)	lā^{a}līt‘e^{e} I became (see also Type 10*a*) 186.19

Of examples of Type 15*b* may be mentioned:

Verb-stem	Aorist stem
dink!a′s$dā^{a}$ it will lie stretched out	dink!ī it lies stretched out
t!obaga′s$dā^{a}$ he will lie like one dead (148.8)	t!obigī he lay like one dead

This non-aoristic *-as-* seems to occur also in:

da-sma-ima′sde^{e} I shall smile	*da*-smayam̄ he smiled

which otherwise belongs to Type 2 or 3 (if the second *-m-* is part of the base).

TYPE 16. Verb-stem $v+c+c_1+i$; aorist $v+c+v+c_1$. This type embraces only an inconsiderable number of verbs. They are:

Verb-stem	Aorist stem
dī-k!a′l$side^{e}$ I shall be lean in my rump	*dī*-k!ala′s$na^{e}n$ I am lean in my rump 102.22
gwel-sal-t!e′i$side^{e}$ I shall be lean in legs and feet	*gwel-sal*-t!eyēs$na^{e}n$ I have no flesh on my legs and feet 102.22

Several verbs of position that show an $-ī^{i}-$ in the aorist show an *-i-* in non-aorist forms. Whether this *-i-* is merely a shortened form of the aoristic $-ī^{i}-$, or identical with the non-aoristic *-i-* of verbs of Type 16, is doubtful; but, in view of the absence of the $-ī^{i}-$ in non-aoristic forms of verbs of Type 15, the latter alternative seems more probable. Such verbs are:

Verb-stem	Aorist stem
da-sga'lit'$\bar{a}^a$ it will lie scattered about	*da*-sgalī it lies scattered about
p'ildi'$t'\bar{a}^a$ flat thing will lie	p'ildī flat thing lies
t'ge'its·!i$d\bar{a}^a$ round thing will lie	t'geits·!ī round thing lies (138.24)
s·eini'$t'\bar{a}^a$ it will lie with opening on top (like box)	s·einī it lies with opening on top
s·u'k'di$d\bar{a}^a$ it will lie curled up	s·ugwidī it lies curled up
wī'$^{\varepsilon}$k'di$d\bar{a}^a$ it will lie heaped about	wīk!idī it lies heaped about

Of similar appearance, though the aorist (not the future) is transitive in form, is:

Verb-stem	Aorist stem
$d\bar{a}^a$-sge'k!$it'e^e$ I shall listen	$d\bar{a}^a$-sgek!iya'$^{\varepsilon}n$ I listened (third person $d\bar{a}^a$-sgek!ī 102.8)

In speaking of verbs of Types 15 and 16, the terms verb-stem and aorist stem are used in a purely relative sense, the portions of the listed forms printed in Roman characters not being really on a par with those similarly marked in the first fourteen classes. These last two types have significance as such only in so far as certain elements of an essentially derivative character (*-ī^i-*, *-i-*, *-as-*) are at the same time formal means of distinguishing aorist from non-aorist forms. It is not difficult to show that in several cases these elements are themselves preceded by non-radical elements.

One or two aorists have been found in the material obtained that can not be well classified under any of the sixteen types illustrated above. They are:

gwen- xoxog[w]a'$^{\varepsilon}n$ I string (salmon) together (=fully reduplicated *xogxog-* ; otherwise to be analyzed as *xoxo-g-* of Type 10 a) 74.14

*sal-*s·ā^{a}xs·īx he slid

This latter verb with its mysterious $\bar{\imath}^i$ in the repeated syllable is absolutely without known parallel. Irregular is also the defective verb *ei-* BE (see §60, fourth footnote).

3. Verbal Suffixes of Derivation (§§ *41–58*)

§ 41. GENERAL REMARKS

Although the absolute number of non-pronominal suffixes in the verb is considerable (almost or quite thirty), the number of those that have a well-defined, more or less transparent signification is not large (hardly more than a dozen or so) when compared with what

one is accustomed to in certain other American languages. Of these, barely one or two (a frequentative and a comitative) can be said to convey anything like a material notion, the rest being of the more or less formal or relational character met with in suffixes of inflective languages—intransitivizing elements, causative, reflexive, passive, reciprocal, and others of less easily described signification. Those suffixes that have no clearly defined value may be put in a class by themselves as "petrified" suffixes, the justification for such a classification being purely descriptive; genetically they probably form a heterogeneous group.

§ 42. PETRIFIED SUFFIXES

In speaking of verbs of Types 2 and 3, it was pointed out that in a large number of cases certain consonants that one would naturally be inclined to consider part of the verb-stem could be shown by more careful analysis to be really of a suffixal character. The criteria for such a suffix are partly, as was there indicated, the existence of evidently related forms in which the consonant is lacking, partly certain phonetic features. In a considerable number of cases different suffixes are found joined to the same verbal base, yet hardly ever determining so specific a meaning that their primary signification can be detected. The following examples,

t'geits·!ł something *round* lies (138.24)
t'geyeba'ᵉn I *roll* it
t'geᵉya'lxdeᵉ I run *around*
al-t'geye't'giyaᵉn I tie it *around* (my head) 188.5
wīᵉ-ī-t'geye'ᵉk!in he is *surrounded* on all sides 48.13

evidently all contain the same radical element or base (*t'gey-*), which has reference to circular action or position. The suffixes *-ts·!-*, *-b-*, and *-k!-*, however, can not be shown to be directly responsible for the specific meanings of the different forms, these being determined chiefly, it would seem, by the succeeding suffixes, the prefixes, and the general form (transitive or intransitive) of the verb. Similarly, the forms *heᵉᵉ-sgaya'pxdeᵉ* I LIE DOWN, *da-sgaya-na'ᵉn* I LIE DOWN, and possibly also *da-sgalī* IT LIES SCATTERED ABOUT (LIKE GRAIN), contain the same radical element (*sga*[*y*]-); but, as in the examples first cited, the abstracted suffixes *-p-*, *-n-*, and *-l-*, refuse to yield anything tangible. The stems *galb-* TWIST and *gelg-* TWIRL FIRE-DRILL are very probably related, though neither

the difference in vowel nor the use of different consonants can be explained. The same difficulty is met with in *di'nik!a^{e}n* I STRETCHED IT OUT (62.1) and *bā^{a}-dinī'^{i}t!a^{e}n* I HUNG THEM ON LINE (59.9). In some cases a difference of suffix is associated with a difference of direction of verbal action, transitive and intransitive. Thus we have:

al-ts!ayaga'^{e}n I wash him (64.5): *al-ts!ayãp'de^{e}* I wash myself (not reflexive in form)
p!alaga'^{e}n I relate a myth to him: *p!ala'p'de^{e}* I relate a myth
ts!ayama'^{e}n I hide it (124.23): *ts!ayãp'de^{e}* I hide

The various petrified suffixes found will be listed with examples under each.

1. ***-b-***. There seem to be two quite distinct *-b-* suffixes, one characteristic of transitives, the other of a certain group of intransitives. Examples of transitive *-b-* are:

t'geyeba'^{e}n I roll it (base *t'gey-*), with secondarily intransitive derivative:
al-t'geya'px it is round (literally, it rolls)
he^{ee}-sgaya'pxde^{e} I lie down (derived, like *al-t'geya'px*, from some such transitive as **he^{ee}-sgayaba'^{e}n* I lay it down flat, that, however, does not happen to occur in the material at hand)
de^{e}-ī-gene'p'gwa he lay curled up like dog (also *-geneũk'wa*)
galaba'^{e}n I twist it by rolling (cf. *gelg-* twirl fire-drill)
sgīlpx warm your back! (seems to imply **sgī^{i}lba'n* I shall warm his back) (25.8, 9)

All intransitives in *-b-* (*-p'-*), whether or not secondarily derived from transitives, belong to that class of verbs to be later discussed as Intransitive Verbs, Class II. Among those with primarily intransitive *-p'-* are:

al-ts!ayãp'de^{e} I washed my face
ts!ayãp'de^{e} I hid
p!ala'p'de^{e} I tell a myth
s·in-xinīxanp'de^{e} I sniff (cf. *xīn* mucus)
s·as·a'nhap'de^{e} I stand around (not trying to help anyone) (cf. *s·a's·ant'e^{e}* I shall stand)
s·in-wi'lī^{i}k'ap'de^{e} I blow my nose
bā^{a}-s·o'wō^{ue}k'ap'de^{e} I jump up (48.15; 49.1)

A number of Class II intransitive verbs show a suffixed *-p'-* in all forms but the aorist. It is not possible to say whether this *-p'-* is morphologically identical with the *-p'-* of verbs like

ts!ayãp'de^{e} or not, but such seems likely. Intransitives with non-aoristic *-p'-* are:

lãp'de^{e} I shall become (92.11) (aorist *lã*^{a}*lūt'e*^{e}) 186.19
sana'p'de^{e} I shall fight (aorist *sã*^{a}*nsa'nt'e*^{e} [184.13])
tgūnp'de^{e} I shall be cold (aorist *t'gunūk'de*^{e} [90.3])

Finally, all Class II intransitives have a *-p'-* before the formal elements in the first person plural and impersonal of the aorist and future and in the imperative and inferential modes:

s·as·inīp'ik' we stand
s·a's·anp'ia^{ue}*t'* they (indef.) will stand
s·a's·anp' stand!
s·a's·anp'anp' do ye stand!
s·a's·anp'ga^{e}*m* stand! (future)
s·a's·anp'k' he stood, it seems

There is small doubt, however, that this *-p'-* is quite distinct from the non-aoristic *-p'-* of verbs like *lãp'de*^{e}, which occurs in the entire future. A form like *lãp'* BECOME! is in that event perhaps to be analyzed as *lã*^{a}*-p'-p'*, the first *-p'-* being the non-aoristic element found also in *lãp'de*^{e}, while the second *-p'-* is identical with the imperative-inferential *-p'-* of *s·a's·anp'*. This analysis is purely theoretical, however, as contraction to a single *-p'-* is unavoidable in any case.

2. ***-p!-***. This consonant is evidently a suffixed element in:

ha^{e}*-ī-hü'lüp!i*^{e}*n* I skinned them (cf. *ha*^{e}*-i-hü'lü*^{a}*hal* they skinned them all 160.5)

3. ***-m-***. Apparently as transitive element *-m-* appears in:

ts!ayama'^{e}*n* I hide it (124.23) (cf. *ts!ayãp'de*^{e} I hide [24.2])

As intransitive suffix it appears in:

t'gisi'^{e}m it gets green
xudum̃t'e^{e} I whistle (base *xud-;* related to *xdeīt'* flute [?]) (33.16)
ts·!us·um̃t'e^{e} I make noise by drawing in breath between teeth and lower lip (78.9,10,12; 79.1,3,5; 96.9,10,12)

It may not be altogether accidental that the latter two verbs both express the making of a noise. This idea is found expressed also in:

ts·!elem̃t'e^{e} I rattle (102.13) (cf. *ī-ts·!ele'ts·!ili*^{e}*n* I rattle it)

but the *-m-* of this verb may be really an older *-n-* dissimilated to *-m-* because of the preceding *-l-*. The *-m-* corresponds to an evidently identical suffixed *-am-* of the related noun *ts·!ela'm* HAIL 152.12,16.

4. **-*d*-, -*t*'-** seems to be found only with transitive verbs:

wā^{a}himida'^{ɛ}n I speak to him (but with unexpressed object *wā^{a}himi'xade^ɛ* I was talking [to somebody]) (59.16; 63.10)
dak'-hene^{e}da'^{ɛ}n I wait for him (cf. *hene'xade^ɛ* I wait)
k!ūyūmida'^{ɛ}n I call his name from distance, greet him (198.11) (probably derivative of *k!ū'yam* friend! 31.6, 8)
s·omoda'^{ɛ}n I cook it (58.10) (cf. *s·ümü'xade^ɛ* I cook)
ts·!ümũmt'a^{ɛ}n I cook it (170.17,19); future *s·ũmt'an* [1] (170.16) (cf. *s·ümxi'* stirring paddle 170.14)
dā^a-minīk'da^{ɛ}n I taught him; future *dā^a-miñt'an*
lawadana'^{ɛ}n I hurt him (186.12)
yamada'^{ɛ}n I ask him (70.6; 74.10; 120.16)
wiyimada'^{ɛ}n I "wish" to him, work supernatural power on him (57.1)
mīlī^{i}da'^{ɛ}n I love her
xa^ɛ-ī-ts·!iwi't' he split it (26.6) (cf. *ī-ts·!iwī'^{i}ts·!au* he split it up)

It will be noticed that most of the verbs listed imply, not direct physical action, but rather the direction of one's thought or words toward another person. It is therefore highly probable that the *-d-* (except possibly in *s·omd-* COOK) is identical with the *-d-* implied in the *-s·-* (= *-tx-*) of the indirect object (§ 47). Unlike the *-d-* here discussed, however, the *-s·-* of the indirect object can be used only if the indirect object is not of the third person. It is clear that *-d-* is not really quite in line with the other suffixes that we have termed "petrified," this being shown, among other things, by the fact that it may be preceded by other suffixes, as in *dā^a-minī-k'-da^{ɛ}n*.

Evidently quite distinct from this indirective *-d-* suffix is the *-(a)d-* suffix of a few intransitive class II verbs in which the *-d-* is followed by *-ī^i-* in aorist, *-i-* in non-aorist forms (see § 40, 16). This aoristic *-ad-* appears always umlauted to *-id-*.

cugwidī^i-, non-aorist *cuk'di-* lie curled up
wīk!idī^i-, non-aorist *wī^{ɛ}k'di-* lie heaped about
t'gup!idī (box, canoe) lies bottom side up

5. **-*t!*-.** This consonant has been found as an evident suffix in:

bā^a-di'nīt!ana^{ɛ}n I strung (dentalia) on line (59.9) (cf. *dink!-* stretch out)
t'gemēt!ia^{uɛ} it gets dark 188.14 (cf. *t'ge^{e}mt'ga'mx* it is quite dark [cf. 196.7]; *alt'ge'm* black 162.4; [196.6])

[1] *s·om-d-* and *s·ü^{u}m-t'a-* are parallel forms of one verb that seem to be used with no difference in meaning, though their aorist stems are formed according to different types.

6. ***-g-, -k'-.*** As in the case of *-b-*, it seems advisable to recognize two distinct *-g-* suffixes, the one appearing as a transitivizing element, the other as a verb-making element added on to nouns or adjectives. Examples of its transitive use are:

p!alaga'ᵉn I tell him a myth
al-ts!ayaga'ᵉn I wash him (64.5)
p!ī'-wa-gelegi'ᵉn I drill for fire with it (88.12)
ī-k!us·gi'xink' he will pinch me (116.8,12) (cf. *ī-k!us·ū'k!ʷas·i* he always pinches me)
da-t!abaga'ᵉn I finish it (61.8; 176.6)
dāᵃ-dalaga'mdaᵉn I put holes in his ear (22.1) (cf. *dāᵃ-dele'*p'*i* he stuck it across his ear)
swadãt'gaᵉn I run after him (59.13; 75.3; 120.19, 20)

Examples of its use in adjectival intransitives are:

*t'ūwū'ᵉ*k' he feels hot, it is hot 94.15 (cf. *t'ū* hot 57.15)
*dūwū'ᵉ*k' it is good, he does right 180.11 (cf. *dū* good, beautiful 58.7,8)
t'gunūk'deᵉ I feel cold (90.3) (cf. *t'gūn*p'*iaʷᵉt'* it will be cold)
*xuma'*k'*deᵉ* I shall be full, satiated (128.11) (cf. *xu'ma* food 54.4 and *s·īx-xu'm* dried venison 43.12,13)
*gel-dulu'*k'*deᵉ* I am lazy

Further examples of *-k'-* that are difficult to classify are:

de-lümü'sgadeᵉ I tell the truth (184.3)
s·in-wilīk'ap'dam you blow your nose
*yala'*k'*deᵉ* I dive (connected with *yal-* lose [?]) (60.10,11; 61.11)

In *wa-t!ilīk'niᵉn* I GAVE EACH ONE (130.4) (future *wa-dīlnhin*) and in the morphologically analogous *dāᵃ-minīk'daᵉn* I TAUGHT HIM (future *dāᵃmiñt'an*), the *-k'-* is confined to the aorist. In *wēt'gi* HE TOOK IT FROM HIM 16.13, the *-g-* is found only in the third personal object of the various tense-modes (*wēt'gin* IT WAS TAKEN FROM HIM 13.11; *wede'*k'*ink'* HE WILL TAKE IT FROM HIM (17.10,11). All other forms of the aorist stem *weᵉd-* (verb-stem *wede-*) lack it:

wēsi (from **wēt'si*) he took it from me (17.3)
wede'sbink' he will take it from you (16.10,11)

7. ***-k!-, -k!w-.*** These elements seem to be characteristic of transitives. Examples are:

*wīᵉ-ī-t'ge'yeᵉ*k!*in* he is surrounded on all sides (transitives and passives are closely related) 48.5,13; (176.14)
*al-p!īⁱ-ts·!u'luk*l*ᵢᵉn* I burn it (73.9,12; 96.26) (cf. *al-p!īⁱ-ts·!u'l-ts·!alhip'* do ye burn it! 198.10)

dī^{ɛ}-ī-sgü'yük!i^{ɛ}n I make it fall (48.7,8,12)
he^{eɛ}-de-le'lek!i^{ɛ}n I finish talking 50.4
di'nik!a^{ɛ}n I stretch it out (see under suffix *-t!-*) (59.9; 62.1)
he'yek!i^{ɛ}n I left it over (61.7; 196.8)
p!ūwū'^{u}k!a^{ɛ}n I name him (158.5) (cf. *p!ū'wūp!ausi* he keeps calling me)
ts·!ini'^{ɛ}k' he pinched it 31.1; (32.7)
*ba-i-yunu'*k!i^{ɛ}n I pull it out forcibly
he^{eɛ}-ī-le'mek!i^{ɛ}n I killed them off (14.13; 43.1; 108.20)
ī-go'yok!i^{ɛ}n I pushed him (49.2) (cf. *ī-goyogiyi'^{ɛ}n* I kept pushing him)
ba-i-s·in-xi'lik!wi^{ɛ}n I blow my nose (cf. *xīn* mucus)
*p!a-i-t'gwili'*k!w*ana^{ɛ}n* I spill (water, blood) (58.1; 72.8) (cf. *t'gwilī'^{i}t'gwal^{ɛ}* it keeps dropping)

-k!- seems to occur also in the perhaps only secondarily intransitive:
bā^{a}-s·owō'^{uɛ}k'ap'de^{ɛ} (=*-s·owō'^{u}k!-hap'-*) I jump up (48.15; 49.1) (cf. *s·o'wō^{u}s·a^{uɛ}* he keeps jumping [112.5,10])

8. ***-ts·!-***. Only in a very few cases is this suffixed consonant met with:
t'geits·!ī round thing lies (138.24)
*dī^{i}-t'gumu'*tc!i^{ɛ}n I squeeze and crack it (cf. *dī^{i}-t'gumu't'gimi^{ɛ}n* I squeeze and crack many insects)
yowō'^{uɛ}s he starts 186.10; *yowō'^{u}ts!ana^{ɛ}n* I cause him to start
ha-yau-t'ge'nets!i^{ɛ}n I put it about my waist
ha^{ɛ}w-ī-ha'nats!i^{ɛ}n I made it stop (raining) (152.16)

Judging from these few examples, *-ts·!-* is characteristic, like *-b-*, *-g-*, *-p!-*, *-k!-*, and *-t!-*, of transitive verbs; *t'geits·!ī* is probably related to a transitive **t'ge'yets·!a^{ɛ}n*, as is *dink!ī* IT LIES STRETCHED OUT to *di'nik!a^{ɛ}n*.

-s- occurs as an evident suffix in:
dī^{i}-t!ī^{i}si'^{ɛ}n I mashed them (cf. *dī^{i}-t!iyī't!iya^{ɛ}n* I mashed them one after another)

9. ***-(a)l-***. This suffix includes both intransitives and transitives:
al-gesegasa'lt'e^{ɛ} I was washing
k'ebilīt'e^{ɛ} I was long absent (124.20)
s·u^{ɛ}wilīt'e^{ɛ} I sit (21.1); 72.9; (178.21)
yamlīt'e^{ɛ} I look pretty ([?]=fat, sleek; cf. *ya'mx* fat, grease 54.5)
al-we'k!ala^{ɛ}n I shine (126.3; 128.14)
ī-t'wī^{i}yili'^{ɛ}n I make it whirl up
ī-k!e^{e}wili'^{ɛ}n I whirl it around
ī-t'ge^{e}yili'^{ɛ}n I roll it around
al-t'gī^{i}ya'lx (tears) roll down his face 138.25
bā^{ɛ}-ī-t'gwā^{a}la'lx (children) run about
k'ewe'k'awa^{ɛ}l he barks
de-gülü'k!alx it was blazing 188.15

The idea of unbroken continuity is fairly evidently shown by these examples to be connected with the suffix -(*a*)*l*-.

10. **-(*a*)*n*-.** Quite a number of intransitives are found that have this element, to which no particular meaning can be assigned. Such are:

s·as·inīt'e^{ɛ} I stand (34.1; 77.9; 144.14,17)
moyūgwa'nt'e^{ɛ} I'm spoiled
hü^{ü}*li'nt'e*^{ɛ} I am tired (102.1) (cf. *hülü'hilint'e*^{ɛ} I used to be tired [48.11])
ligīnt'e^{ɛ} I am resting (100.14) (cf. *ligilaga'nt'* he kept resting 102.1)

In a large number of transitives a suffixed -*n*- is also found, without its being clearly possible to identify it either with the causative -*n*- or the indirect objective -*n*(*an*)- FOR:

*lawad*ana'^{ɛ}*n* I hurt him (186.12)
ts·!ibina'^{ɛ}*n* I make a speech to him (146.11; 178.11)
wa-t!ilīk'ni^{ɛ}*n* I gave each one (130.4)
k!emna'n I shall make it (28.2,13,14) (aorist without object *k!eme'nxa*^{ɛ} he makes)
wa^{ɛ}*-ū*^{u}*gwini'*^{ɛ}*n* I drink it with it (*ū*^{u}*gwa'nxde*^{ɛ} I drink)
he^{eɛ}*-wa*^{ɛ}*-wā*^{a}*gini'n* she is bought with it

The last two examples are rather different in character from the others. See § 64.

11. **-*w*-.** Two apparently quite distinct -*w*-suffixes must be taken account of.

(1) A suffixed -*w*- is found to characterize in all forms a group of intransitives belonging to Type 2; it is only in certain derivative forms that the -*w*- is lacking, and thereby possibly shown to be a non-radical element:

hiwiliūt'e^{ɛ} I ran to (24.1), but *hiwilūlt'e*^{ɛ} I used to run to
sgeleūt'e^{ɛ} I shouted (196.1), but *sgelēlt'e*^{ɛ} [1] I kept shouting (59.3)

Examples of this group of verbs are:

Aorist	Future (non-aorist)
sgele'^{uɛ} he shouted 59.4; 90.8	*sgelwa'*^{ɛ}*t'* he will shout
hiwili'^{uɛ} he ran to 47.1; 70.7	*hiwilwa'*^{ɛ}*t'* he will run to (136.21)
bili'^{uɛ} he jumped 48.9; 58.3	*bilwa'*^{ɛ}*t'* he will jump (160.16)
de-wiliwa'lda^{ɛ}*n* I fight him (derivative of intransitive)(27.3)	*de-wilwa'ldan* I shall fight him (33.2,3)
hili'^{uɛ} he climbed (77.8)	*hilwa'*^{ɛ}*t'* he will climb

[1] Still, in these frequentative (usitative) forms the absence of the -*w*- may be accounted for by supposing that it dropped off as a syllabic final after a consonant (see § 18). Then *sgelēlt'e*^{ɛ} is for an older**sgelēlwt'e*^{ɛ}. This supposition is greatly strengthened by the future *sgelwa'lt'e*^{ɛ} I'LL KEEP SHOUTING (cf. *sgelwada'*^{ɛ} YOU WILL SHOUT).

In non-aoristic forms the phonetic conditions may, as usual, necessitate an inorganic *-a-*:

ge wila'u run there! (29.10)
sgela'ut'e^{e} I shall shout
bila'ut'e^{e} I shall jump (160.17)

In these cases the evidence for the suffixal character of the *-w-* is rather slim. In one verb, however, it has a clearly intransitivizing influence:

t!emeyana'$^{u\varepsilon}$ (second *a* inorganic) he goes with woman to see her married 148.6
t!emeya'nwia$^{u\varepsilon}$ they (indef.) go with her to see her married 178.1

: *t!amayana'$^{\varepsilon}n$* I take her to her husband (148.5)

(2) *-w-* (*-aw-* after a consonant in the aorist) is characteristic of all tense-modes but, in some cases, the present imperative and inferential (probably for phonetic reasons, see §§ 11 and 18) of a number of transitive verbs, provided the object is of the third person. Such verbs are:

gayawa'$^{\varepsilon}n$ I eat it 30.11 (*gayaũ* he ate it 54.5); future *ga-iwa'n* 128.18; noun of agent *ga-iwa'$^{\varepsilon}s$* eater (of it) 94.3; but imperative *gaĩ* eat it! 32.4; *gaĩk'* he ate it (inferential) 142.19

al-sgalawi'$^{\varepsilon}n$ I turn my head to look at him; future *sgā^{a}lwi'n;* part. *sgala'uk'* (*-a'-* is inorganic) 144.17; but *sgãlk'a$^{\varepsilon}$* I looked at him turning my head (inferential)

al-sgalā^{a}liwi'$^{\varepsilon}n$ (Type 8) I keep turning my head to look at him; future *sgalwalwi'n;* but *sgelēlxi* he keeps turning his head to look at me

ba-i-de-ye^{e}giwida'$^{\varepsilon}$ you will drive (sickness) out of (body) 198.4,5; imperative *-ye^{e}ga'u*

wā^{a}giwi'$^{\varepsilon}n$ I brought it to him (176.17); future *wagawi'n;* but *wā^{a}ga'sbi$^{\varepsilon}n$* I brought it to you (194.11)

lā^{a}la'uhi he caused them to become (*lā^{a}l-* become) 43.1

It is very likely that the absence of the *-w-* is conditioned, at least in certain forms, rather by phonetic than by morphologic motives (*gaĩ* from * *gaĩw*; *sgãlk'a$^{\varepsilon}$* from **sgãlwk'a$^{\varepsilon}$*). This is rendered plausible by a form like *ga-iwawa'lsbink'* THEY WILL ALWAYS EAT YOU 26.8 (repetition of *-w-* in frequentative as in *al-sgalwalwi'n*), in which the object is not of the third person. The *-w-* seems to have been retained here because of the following vowel. The form *wā^{a}ga'$^{\varepsilon}n* I BROUGHT IT (110.17) as com-

pared with *wā^{a}giwi'^{e}n* I BROUGHT IT TO HIM (future *waga'n: wagawi'n*) suggests that the signification of the *-w-* in transitive verbs is to indicate the indirect object, at least for the third person. It is, however, almost certainly accidental that *wā^{a}giwi'^{e}n* stands by the side of *wā^{a}ga'sbi^{e}n* with *-s-* to indicate the indirect object. That *-w-* is not the morphologic equivalent of *-s-* is evidenced by the fact that it stands also by the side of the transitive connective consonant *-x-* (cf. *al-sgalawi'^{e}n: al-sgala'xbi^{e}n* I TURN MY HEAD TO LOOK AT YOU). It must be confessed that after all no very distinct signification can be attached to either the intransitive or transitive *-w-*.

12. ***Constant -a.*** A number of verbs whose stem (including petrified suffix) ends in two consonants add to this stem an *-a* that appears in all their forms, even though the consonant combination is one that may stand in a final position (cf. footnote, § 10). No reason can be assigned for the retention of the *-a* in all forms, except the ruling analogy of the aorist; in this tense-mode the *-a* is in all probability directly due to the consonant-cluster, as the aorist verb-forms to be presently given differ in this very respect from the aorist forms of other stems ending in two consonants (e. g., non-aorist *s·ü^{u}mt'a-* BOIL with constant *-a-*, though ending in a finally permissible consonant-cluster, because of aorist *ts·!ümü^{u}mt'a-;* contrast non-aorist *s·omd-* BOIL without *-a-* because of aorist *s·omod-*). The following are examples of verbs of the character described:

Aorist	Non-aorist
*swadāt'g*a he followed him 75.3	*swa't'g*a follow him!
*mats!ãsg*a he always put it 132.9	*masg*a' put it! 104.5
*ts·!ümũmt'*a he boils it 30.2	*s·ũmt'*a boil it!
*dā^a-minŭk'd*a he taught him	*dā^a-miñt'*a teach him! (contrast *wā^{a}hīmt'* talk to him! with aorist *-himid-*)

If the verb is instrumental in vocalism (see § 64), the constant *a* is replaced by the instrumental *i*. Thus:

*ĭ-k!os·õs·g*i he keeps pinching him

That this constant *-a* is felt to be somewhat different in character from ordinary inorganic or connective *-a-* (as in *ts·!ela'mt'e^e* or *wā^{a}ga'sbi^{e}n*) is shown by the fact that it is changed to *-i-* when-

ever the object is not of the third person, in reciprocals, in reflexives, and in verbs with non-agentive *-x-*:

swedēt'gixi he followed me
dā^{a}-minīk'dixbi he taught you
yowō'$^{u\varepsilon}$snixbi$^{\varepsilon}$n I cause you to start (but parallel *yowō'^{u}ts!anxbi$^{\varepsilon}$n* with connecting *a*)
wayānhixbi$^{\varepsilon}$n I put you to sleep; *waɪnhixigam* I was put to sleep
ī-k!üs·ûs·gixi he keeps pinching me; *ī-k!üs·gi'xinɨk'* he will pinch me
ī-t!ene'hisdam you hold me 86.13,14.
ī-lasgi'xant'p' touch one another!
ī-lesgi'k'wit' touching himself
bā^{a}-t'ek!ēlhixde$^{\varepsilon}$ I keep bobbing up (60.11,13,14)

§ 43. FREQUENTATIVES AND USITATIVES

Frequentatives, continuatives, and usitatives are formed from simpler verb forms in great part by various methods of repetition of all or part of the phonetic material of the stem, to a somewhat less extent by means of suffixation. In many repetitive forms a distinct tendency to use a long vowel provided with a rising pitch-accent is observable. As it has not been found feasible to draw anything like sharp lines between the exact significations of the various repetitive forms, it seems best to dispose of the material from a purely formal point of view rather than to attempt to classify it rigidly into frequentatives, iteratives, usitatives, and continuatives. The methods of forming repetitives will be taken up in order.

1. ***Type 13 of Stem-Formation.*** It was remarked before that most verbs of this type normally employed in that form are such as to imply a repetition of the action they express. The type may, moreover, be freely formed from bases implying non-repetitive action whenever it is desired to convey a general frequentative or usitative meaning. The frequentative idea may have reference to the repetition of the act itself (iterative or usitative) or to the plurality of the transitive object or intransitive subject affected (distributive); any sharp characterization of the manner of the frequentative action in each case is, however, doubtless artificial apart from the context. The following examples of repetitive with corresponding non-repetitive forms will illustrate the general frequentative force:

Non-repetitive verb-stem	Repetitive
lebe- pick up and eat (seeds)	*le'ᵉp'lap'* (non-aorist) · pick and eat many (seeds)! 34.2
loho-n- cause to die	*loho'lahanaᵉn* I used to kill them
wog- arrive	*wogowa'ᵉk'* many arrived 112.2
t!oxox- (aorist) gather	*waᵉ-ī-t!oxo't!ixiᵉn* I used to gather them
dōᵘx- (non-aorist)	*waᵉ-ī-dōxda'xk'* they have been gathering them (inferential)
hen-d- wait for	*hene'handaᵉn* I always used to wait for him
odo- hunt for	*odo'ᵉat'* she always hunted for them 116.6
og- give to	*ogo'ᵉak'i* he always gave them 112.17
dōᵘm- kill	*dōᵘmda'mk'* he used to kill them (inferential) 25.1; 27.15
wīⁱ- go, travel	*wiyiwīt'eᵉ* I used to go (there) (96.1)
p!āᵃg- swim	*p!aga'p!aᵉk'* he used to swim
ts·!iu-d- split	*xaᵉ-ī-ts·!iwī'ⁱts·!au* he split it to pieces
sgīp!- cut	*sgīⁱᵉp'sga'p'gam* they had been all cut up (21.2; 138.7)
hül-p!- skin, peel off bark	*heᵉᵉ-ī-hü'lühal* he kept peeling off bark (160.5)
hog- run	*hogo'hak'deᵉ* I am always running
heᵉl- sing	*hele'halᵉ* he used to sing
al-hūi-x- hunt	*al-hūyū'hīⁱx* he always hunted (*-hīⁱ-=-hay-*, §8) 86.1

It will be observed that the repetitive form is, on the whole, built up on the verbal base, not the verb or aorist stem. Thus, e. g., the verb-stems *lebe-* and *loho-* do not enter into the formation of the frequentatives at all, which are formed, according to Type 13*a*, directly from the simple bases *leb-* (verb-stem *leᵉp'lab-*, aorist *lebelab-*) and *loh-* (verb-stem *lohlah-*, aorist *loholah-*). Similarly, a form like *p!aga'p!aᵉk'* shows no trace of the aorist stem *p!agai-* of the simplex; verbs of Type 6 generally show the fortis consonant of the base in all forms of the frequentative (see §40, 6): *sgot!o'sgidiᵉn* I CUT IT TO PIECES (144.2) (cf. *sgō'ᵘdaᵉn* I CUT IT 72.10, base *sgōt!-*

45.10). Suffixes with no distinct derivative signification drop off in the frequentative (cf. *ts·!iu-d-* and *hül-p!-* above, also §42 passim), but, if they are functional elements, are put after the reduplicated complex (cf. *loho-n-* and *hen-d-* above); frequentatives thus become, as was indicated in the treatment of petrified suffixes, criteria for the determination of the simple base. Some verbs, however, retain a petrified suffix in the frequentative without apparent reason: *ts·!ümũmt'a* HE BOILS IT; *ts·!ümü'ts·!amt'a* HE ALWAYS BOILS IT.

The only use made of the aorist stem in the formation of frequentatives is in the case of such forms as have an initial fortis in the aorist as against a media in the verb-stem, mainly verbs of Type 8. The aorist of the corresponding frequentative also shows the initial fortis, but is not otherwise influenced by the form of the aorist stem of its simplex; e. g., aorist of simplex, *t!oxox-*, but of frequentative, *t!ox-o-t!ax-* with retained *t!-*. Such verbs as aorist *t!oxot!ax*, non-aorist *dõ^{u}xdax-*, are to be considered as of mixed type (in this case partly 8, partly 13*a*).

Verbs like *odo^{ɛ}ad-* and *ogo^{ɛ}ag-* with a secondarily developed glottal catch in the aorist (see §6) seem to retain this catch in non-aorist forms, a stop + the catch resulting in a fortis:

aorist *ogo'^{ɛ}ag-* always give to; non-aorist *o'k![w]ag-*

A small sub-class is formed by those frequentatives that omit the *-a-* of the repeated base (Type 13*c*). Such are:

Verb-stem	Repetitive
*wa-*yana*gwa'n* I shall run after him	*wa-*yana-in*agwa'^{ɛ}n* I used to run after him
waït'*e^{ɛ}* I shall sleep (71.15; 142.14)	wayaũhi*de^{ɛ}* I used to sleep (*-h-* conditioned by accent)
*he^{e}l-*yo^{u}na'*n* I shall sing a song (106.7)	yonoina'^{ɛ}*n* I always sing it
waga'*n* I shall bring it	wagao'k'*na^{ɛ}n* I used to bring it (?=**wagawg-*, but see 4, footnote) (45.6)

A very peculiar type of frequentative formation is illustrated by:

loha'lhik' (*a'* is inorganic) they used to die (inferential) (168.9); aorist stem doubtless loholhi-

derived from aorist *lohoi-* die, non-aorist *loho-* (contrast aorist *loholah-an-*, non-aorist *lohlah-an* in the causative). The otherwise purely aoristic *-i-* of Type 4 is here dragged into the non-aorist forms.

2. ***Type 4 of Reduplication.*** This method of forming the frequentative seems to be but a variant of the first (the repeated initial consonant coming last instead of immediately after the connecting vowel, or the initial consonant not being repeated at all if there is a petrified suffix), and is found in only a few verbs, where it takes the place of the first method. A glottal catch generally separates the repeated vowel of the stem from the immediately following *a*. Examples are:

Aorist stem	Repetitive
k!eme {*-n-* / *-i-*} make	*k!eme'ᵉamgaᵉn* I always make it (instead of **k!eme'-k!amaᵉn*) (77.5); *k!emᵉa'mk'* (=*-ᵉamg-k'* he used to make it (inferential) 122.18
t!omom- kill	*t!omo'amdaᵉn* I used to kill them (instead of **t!omo'-t!amaᵉn*) (13.10; 54.3)
k!ūwūw- throw away (pl. obj.)	*k!ūwū'ᵉaugaᵉn* I used to throw them away (instead of **k!ū-wū'k!awaᵉn*) (134.6)
p!ūwū-k!- call, name	*p!ūwū'ᵉa-ugaᵉn* I keep calling his name (100.21) (instead of **p!ūwū'p!auk!aᵉn*; cf. *p!ū'-wūp!aus·i* he keeps calling me by name)
de-ts·!iniᵉ-x- (=*ts·!ini-k!-x-*) die	*de-ts·!inī'anx* he always died (instead of **ts·!inī'ts·!anx*) 74.7
leme-k!- take along (cf. 108.10)	*leme'amk'* he used to take (everything) (instead of **leme'lamk'*)

If the initial consonant is a fortis, it becomes a media when repeated, as illustrated in the first three examples. This may be explained by catch dissimilation (see §22)—e. g., a theoretical **k!ūwū'ᵉauᵉk'* (from **k!ūwū'k!au*) is dissimilated to *k!ūwū'ᵉauk'*. Similarly a theoretical **p!ūwū'ᵉauᵉk'* (from **p!ūwū'p!auᵉk'*) is dissimilated to *p!ūwū'ᵉauk'*. The non-aorist frequentative forms of these verbs sometimes follow the first method of formation (cf. *dōᵘmda'mk'* under method 1), sometimes the second (as *k!emᵉamg-*).

3. $c+v+c_1+v+c$. The few verbs that belong here differ from the preceding in that they repeat only the initial consonant after the repeated stem-vowel (Type 11). An example is:

Aorist stem	Repetitive
dī-t!ūgūi- wear	*dī-t!ūgū'ᵉt'* he keeps wearing it, used to wear it

As in the first method, so also in the second and third, non-radical functionless elements of the simplex disappear in the frequentative. Thus the suffixed *-i-* of *k!emèī* HE MADE IT and *-n-* of *k!eme'nxaᵉ* HE MAKES, also the aorist characteristic of *dī-t!ūgūī* HE WORE IT, are not found in their corresponding frequentative forms.

4. ***v*+*c*+*v*ᵛ+*c*.** The large number of verbs whose frequentatives follow this formula (1*a* of types of reduplication) always have another consonant, whether part of the stem or a petrified suffix, after the non-fortis repeated consonant characterizing the frequentative, so that the appearance at least of infixation is often produced. Externally, frequentatives of this type resemble aorists of verbs of Type 8, but differ from them in the consistent length of the repeated vowel. In signification these verbs are generally continuative or usitative rather than properly frequentative or iterative. As examples may be given:

Aorist stem	Repetitive
k!os·o-g- pinch	*ī-k!os·ōs·g i* he is always pinching him
himi-d- talk to	*wāᵃ-himīⁱmda'ᵉn* I used to talk to him
baxam- come	*baxãxmiaᵘᵉ* they keep coming (194.13)
t!ülü-g- follow	*ha-t!ülüᵘlga'ᵉn* I keep following in (trail)
al-sgal-aw- turn head to look at	*al-sgalāᵃliwi'ᵉm* I keep turning my head to look at them
gaya-w- eat	*gayāiwa'ᵉn* I used to eat it
hene-d- wait for	*heneᵉnda'ᵉn* I keep waiting for him
p!alag- tell a myth	*p!alāᵃlga'n* the myth is always told
hem-g- take out	*ba-i-hemeᵉmga'ᵉn* I always took them out
ūyūᵉs·- laugh	*ūyū'ᵉīⁱs·deᵉ* (dissimilated from **ūyū'ᵉīⁱeˢ·-* [?]) I keep laughing
ts!ayag- shoot	*ts!ayaīk'* he used to shoot them 154.14
yilim- ask for	*yilīⁱnma'ᵉn* I keep asking for it (see § 21)

Aorist stem	Repetitive
ts!aya-m- hide	*ts!aya-ima'ᵉn* I always hide it (134.8)
gini-g go to	*ginīnk'* they went there one after another 46.11
mats!ag- put	*mats!ās̄ga* they always put it away 132.9
wits·!im- move	*wits·!īsmadeᵉ* I keep moving
sgelew- shout	*sgelēlt'eᵉ* (see § 18) I keep shouting (59.3)
hiwiliw- run to	*hiwilīlt'eᵉ* (see § 18) I keep running

The verb *yewei-* RETURN seems to form its frequentative according to method 4, but with added *-g-:*

yewè'ok' he used to come back 47.4; 116.2; *yewèoga't'* you used to come back; *yewèo'k'deᵉ*, *yewèūk'deᵉ*[1] I used to come back

There is not enough material available to determine in every case the non-aoristic forms of the frequentatives of this group. As a general rule, however, it seems that the non-aoristic stem of the frequentative is formed by repeating a consonant or semi-vowel, but in such a manner as to indicate the non-aoristic simplex back of it. Thus the frequentative of the inferential *ts·!aīmk'* HE HID IT is *ts·!a-imīk'* HE WAS ALWAYS HIDING IT; of *bil[à]uk'* HE JUMPED 160.17 it is *bilwàlk'* (? = **bilwàlwk'*) THEY ALWAYS JUMPED 160.16. From *gaīk'* (inferential) HE ATE IT 142.19 is formed *gayaīk'* (if really inferential in form; perhaps third person subject aorist *gayaig-* in contrast to *-gayāiw* of other persons, see above) HE USED TO EAT IT 54.6, which, though resembling the aorist in the repetition of the stem-vowel, differs from it, probably for phonetic reasons, in the absence of the *-w-*. The form *wits·!è'smadeᵉ* HE WILL KEEP MOVING, given as the future of *wits·!īsmadeᵉ*, can not, for want of parallel forms, be accounted for. From *sgāᵃlw-*, non-aorist of *sgalaw-*, is formed the frequentative *sgalw-alw-* (perhaps according to Type 8, *lw-* being a consonatic unit).

5. ***Vowel lengthening.*** Many verbs, particularly such as belong to Type 2, obtain a usitative signification by merely lengthening the short repeated vowel of the stem, this vowel, when stressed, assuming the falling accent. Examples of this simple process are:

[1] It is not at all certain that the *-o-* (*-u-*) of these forms really represents the *-w-* of the stem. It is quite probable that there is a distinct type of frequentative in *repeated vowel+-og-*, in which case *wagao'k'naᵉn* I USED TO BRING IT (see above under 1) would be another example.

Simplex	Repetitive
yimi'sˑa^{ɛ} he dreams	*yimī'*^{i}*sˑa*^{ɛ} he is always dreaming
lük!ü'xa^{ɛ} he sets traps	*lük!ū'*^{u}*xa*^{ɛ} he used to set traps
geyewa'lxde^{e}*da*^{ɛ} *ba-ik!iyi'*^{ɛ}*k*‘when I ate he came	*geye*^{e}*wa'lxde*^{e}*da*^{ɛ} *ba-i-k!iyī'*^{iɛ}*k*‘ whenever I used to eat he came
k‘*ewe'k*‘*awa*^{ɛ}*l* he barks	*k*‘*ewe'*^{e}*k*‘*awa*^{ɛ}*l* he is always barking

As the last example shows, by this method verbs which are already frequentative in form can be made to take on a usitative meaning.

6. $\tilde{v}+(c+)$ ***ha.*** The accented vowel ($\tilde{v}$) of frequentatives conforming to this formula is either the second vowel of the stem of the simplex or the repeated vowel of the stem not found in the simplex, and is followed by the last consonant (semi-vowel) of such verb-stems as end in two consonants. The forms that belong to this group seem in some cases to have rather a continuative than iterative force. Examples are:

Simplex	Repetitive
lohõn he caused them to die (100.8)	*lohõnha* he keeps killing them
liwila'ut‘*e*^{ɛ} I looked (59.14)	*liwīlhaut*‘*e*^{ɛ} I kept looking (144.19)
wõ^{u}*lt*‘ she went for (wood) (non-aorist *woo-*) (162.8); 186.6	*wo*^{ɛ}*õ*^{u}*ha* she used to go for wood 43.15; 158.18
dā^{a}*-sgek!ī* he listened 102.8	*dā*^{a}*-sgek!eïha* he listened around 102.3
dā^{a}*-agani'*^{ɛ}*n* I heard it (55.3)	*dā*^{a}*-agānhi*^{ɛ}*n* I used to hear about it
sˑu^{e}*wilī* he sits, stays 21.1	*sˑū'*^{ɛ}*alha*^{ɛ} they always stayed (together) 112.2 *sˑū'*^{ɛ}*alhibik*‘ we always stay together
sˑasˑinīt‘*e*^{ɛ} I stand (34.1)	*sˑasˑa'nhap*‘*de*^{ɛ} I stand around

The last two examples do not show a rising pitch-accent, because the vowel (*-a-*) preceding the *-l-* and *-n-* respectively is inorganic and therefore incapable of carrying a rising or raised accent (cf. as parallel *bila'ut*‘*e*^{e} I SHALL JUMP, not **bilaūt*‘*e*^{e}, because of inorganic *-a-*). They also illustrate the loss in the frequentative of a non-radical element (*-ī*^{i}-) of the simplex; in *sˑū'*^{ɛ}*alha*^{ɛ} the loss of the *-ī*^{i}- involves also the transfer of the verb to the first class of intransitives (second person singular, Class I, *sˑū'*^{ɛ}*alhat*‘ YOU STAY AROUND; Class II, *sˑu*^{e}*wilīt*‘*am* YOU SIT).

7. ***ṽ + lha.*** It is very probable that the verbs that belong here contain the continuative *-l-* treated under the head of petrified suffixes (see § 42, 9). The formula may then be considered morphologically identical with that listed as method 5, except that the continuative *-l-* is introduced before the *-ha*. Examples of this group are:

Aorist (or verb) stem	Repetitive
t!oxox- gather	*wa-^{ɛ}ī-t!oxõlhi^{ɛ}n* I always gather them
(*bā^{a}-t'ek!-x* emerge)	*bā^{a}-t'ek!ēlhixia^{uɛ}* they all emerged 60.11; *bā^{a}-t'ek!ēlhixde^{ɛ}* I keep emerging (60.14)
(*sgīp!-* cut)	*xa-^{ɛ}ī-sgip!ūlhi* he cut them all through 26.11
k!ot'k!ad- break	*xa-^{ɛ}ī-yā^{a}-k!odõlhi* he always just broke them in two 29.1
(*al-xīk!-* see)	*al-xik!ūlhi^{ɛ}n* I used to see him
gwidi(k'^{u}d)- throw	*gwidūlha* he kept throwing it (164.11)
(*lok!-* trap)	*lok!õlha* he was always trapping them 78.4; 100.4

The non-aoristic forms of these frequentatives dispense with the repeated vowel (*ṽ*) characteristic of the aorist, so that the introduction of an inorganic *-a'-* is necessitated:

gwida'lhan I shall keep throwing it
al-xik!a'lhik' I used to see him (inferential)

The remarks made under method 1 in regard to the formation of frequentatives directly from the verb-stem rather than the aorist stem apply also here (*sgot!õlha* 108.8 from verb-stem *sgōt!-* CUT, aorist *sgõ^{u}d-*, like *sgot!o'sgat'*).

8. ***v + w + v + lha.*** Only two verbs have been found that follow this very irregular formula for the frequentative:

Simplex	Repetitive
lãp' become! 25.2; *lā^{a}lē'* it became 22.7	*lawa'lhip'* always become! (78.5); *dahõxa lawa'lhida^{ɛ}* whenever it became evening 44.1; 78.6
ligigwa'^{ɛ}n I fetch (game) home (70.3,5; 164.4)	*liwi'lhagwa^{ɛ}n* I always come home with (game) (136.2)

The latter of these shows at the same time an unaccountable loss of the *-g-* of the stem; the future of the simplex, *lī^{i}gwa'n*, probably does not exhibit an absolute loss of the *-g-*, but rather a contraction of *lī^{i}g-gw-* to *lī^{i}gw-*.

TRANSITIVE SUFFIXES (§§ 44–51)

§ 44. General Remarks

Under this head may be conveniently listed a number of suffixes that either transitivize intransitives (causative, comitative, indirective *-amd-*, *-ald-*) or are characteristic of transitive verbs (indirective *-s-* = *-tx-* TO, indirective *-an(an)-* FOR, indirect reflexive). It must be confessed, however, that the various suffixes may be so thoroughly interwoven among themselves and with the purely formal elements that follow, that a certain amount of arbitrariness can hardly be avoided in treating of them. The suffixes will now be taken up in order.

§ 45. Causative *-(a)n-*

Causatives are formed from intransitives by the addition of *-n-* to the intransitive form, minus, of course, its formal pronominal elements. If the final sound preceding the *-n-* is a vowel, the suffix can be directly appended, the vowel being generally lengthened; a final consonant (or semivowel), however, generally, though not always, requires a connective *-a-* (*-i* when umlauted) between it and the suffix; doublets (with and without connective *-a-*) sometimes occur, the combination of consonant + *-n-* then taking a constant *-a* (*-i*) after it. If the accented vowel (*ṽ*) of the aorist immediately precedes the *-n-* in all forms, an inorganic *-h-* must be introduced, the combination *-nh-* then necessitating a following constant *-a;* doublets, conditioned by the position of the accent, here also occur. Certain suffixed elements (*-i-*, *-ī-*) characteristic of intransitives drop off before the causative *-n-*, yet in some forms they are retained; intransitivizing elements naturally remain, for without them the verb would itself be transitive and incapable of becoming a causative. The aorist and non-aorist forms of the causative, with the qualification just made, are built up on the corresponding tense-mode forms of the primitive verb. Examples of causative *-(a)n-* are:

Intransitive	Causative
yelnada'ᵉ you will be lost (*a* palatalized by preceding *y* to *-e-*) 14.3	*yalnanada'ᵉ* you will lose it
yowo'ᵉ he is 21.1	*bāᵉ-ī-yowoni'ᵉn* I woke him up (literally, I caused him to be up with my hand) 16.4

Intransitive	Causative
	ɓa-i-yowona′ᵉn I miss him in shooting (?=I cause him to be out) (138.5) *ba-i-yowõ*nhaᵉ*n*
t'ūwū′ᵉk' he is hot 94.15	*t'ūwūgana′ᵉn* I make him hot
ba-i-biliwa't you ran out 24.15	*ba-i-biliwana't'* he ran him out
hãx it burns 94.18	*hãx*na he burned it 98.8 *hãxank'wa* he burned him up 27.16
t'aga′ⁱᵋ he cries 62.2	*t'agāᵃna′ᵉn* I make him cry *t'egēnxi* he makes me cry
hoyo′ᵉt' he dances 46.12 *hoida′ᵉt'* he will dance	*hoyodana′ᵉn* I make him dance *hoidana′n* I shall make him dance
yāᵃn- go (aorist)	*yāᵃ*na'n he made him go; *yāᵃnana′ᵉn* I made him go *yã*nha (= **yãn-nha*) he made him go; *yã*nhaᵉ*n* I made him go.
yana- go (non-aorist)	*yanāᵃna′n*[1] I shall cause him to go
hene′ᵉn they were used up 184.6	*ī-henenini′ᵉn* I used them up
yowo′ᵉs he started, was startled 186.10	*yōwō′ᵘᵗs!anxbiᵉn* I startled you *yowō′ᵘᵉsnixbiᵉn* (for change of *a* to *i* see § 42, 12)
yō′ᵘᵉsdāᵃ he will start 186.10	*yō′ᵘts!anan* I shall startle him *yōᵘᵉsnan*
t!obigī he lies like dead	*t!obigī*nhaᵉ*n* I make him lie like dead
t!obaga'sdāᵃ he will lie like dead (148.8)	*t!obaga'snan* I shall make him lie like dead
s·as·inī he stands 144.14	*s·as·inī*nhaᵉ*n* I make him stand *s·as·ã*nhaᵉ*n*
s·a's·ant'āᵃ he will stand	*s·a's·anhan* I shall make him stand
de-gülü'k!alx it blazes 188.15	*de-gülü'k!alx*naᵉ*n* I make fire blaze
p'ele'xaᵉ he goes to war 126.13	*p'ele'xanaᵉn* I make him go to war
dak'-limīmxgwaᵉ (tree) falls on him (108.12)	*dak'-limīmxgwadiniᵉn* I chop (tree) on to him

[1] Also *yana'k'nan* I SHALL MAKE HIM GO, with inserted and unexplained suffix *-k'-*.

Intransitive	Causative
yewe'$^{i\varepsilon}$ he returned 49.10; 88.5	*bā$^{\varepsilon}$-ī-yewēn* he cured him (literally, he caused him with his hand to return up) 15.2

The causative in *-ōnha-* is sometimes usitative in meaning:

lohōnha he used to kill them; *lohōn* he killed them 142.9

Examples occur of transitives in *-n-* formed from intransitives in which no causative notion can be detected:

da-lōnha$^{\varepsilon}$n I lied to him; *de-lūnhixi* he lied to me (intransitive *da-lōt'e^{e}* I shall lie [110.23])

gel-wayā^{a}na'$^{\varepsilon}$n I slept with her (26.4); *gel-wa-ina'n* I shall sleep with her (108.3) (intransitive *wayānt'e$^{\varepsilon}$* I sleep [188.22]; *waīt'e^{e}* I shall sleep [188.20]); but *wayānha$^{\varepsilon}$n* I cause him to sleep (162.1); *waīnhan* I shall cause him to sleep, *waīnha* put him to sleep! 106.4,8

The connective *a* of the causative suffix *-an-* in the aorist is treated differently from the *a* of the non-aorist forms in so far as in the former case the *-an-* diphthong, when stressed, receives a raised accent, while in the latter the *a*, as a strictly inorganic element, takes the falling accent. Thus:

Aorist	Non-aorist
hō^{u}gwa'n he made him run	*hogwa'n* make him run!
(*yewēn* he caused him to return)	*ye^{e}wa'n* make him return!
(*p!agān* he bathed him [186.25])	*p!ā^{a}ga'n* bathe him! 186.24

In other words, the phonetic relation between aorist and non-aorist illustrated by several verb types (e. g., *agan-* : *ag[a]n-*) is reflected also in the causative suffix (*-an-*: *-[a]n-*). The same is true of other *-[a]n-* suffixes not causative in signification (see § 42, 10):

Aorist	Non-aorist
ī-k!ū^{u}ma'n he fixed it 150.13	*ī-k!ūma'n* fix it!
(*k!emēnxbi$^{\varepsilon}$n* I make you 27.9)	*k!ema'n* make it! 186.24

§ 46. Comitative *-(a) gw-*

Comitatives, i. e., transitive forms with the general meaning of TO DO SOME ACTION (expressed by verb-stem) TOGETHER WITH, ATTENDED BY, HAVING SOMETHING (expressed by object of verb), may be formed only from intransitives by the suffix *-gw-* (final *-k'^{w}*, rarely *-k'wa* in monosyllables); after a consonant (including semivowel) a connective *-a-* appears before the *-gw-*, though in a few cases (as in aorist *yā^{a}n-* GO) the *-gw-* is directly appended. Dissyllabic stems ending in vowel + *-g-* or *-w-* often add the comitative *-gw-* directly, in

which case the preceding vowel is generally lengthened; doublets, however, are sometimes found with connecting *a*. The second vowel of aorist stems is apt to be lengthened in comitative forms, yet not as consistently as in the case of causatives. Differing in this respect from the causative *-n-*, the comitative suffix does not require the loss of a final aoristic intransitive element (e. g., *-i-*). From aorist *lohoi-* DIE are formed *loho^{u}-n-* CAUSE TO DIE, but *lohoy-agw-* DIE TOGETHER WITH. The reason seems clear. While the action of a causative verb is logically transitive, that of a comitative is really intransitive, and the verb is only formally transitive. In the former case the subject of the verb does not undergo the action that would be expressed by the intransitive stem (*lohoi-*); in the latter it does. Examples of the comitative are:

Intransitive	Comitative
yā^{a}n- go (aorist)	*yãn*k'^{w} he takes it along (lit., he goes having it) 17.13
yána- (non-aorist)	*yana*gwa'*nk'* he will take it along
ligi- come home from hunt (aorist)	*ligi*'k'^{w} he fetched game home 70.3
lī^{i}g- (non-aorist)	*lī^{i}*gwa'*nk'* (=*lī^{i}g-gwa'nk'*) he will fetch game home (130.6)
gini(g)- go to	*ginī^{i}*gwa'$^{\varepsilon}$*n* I take it to (31.11); also *giniy*agwa'$^{\varepsilon}$*n* (13.12); future *gina*gwa'*n* (=*ginag-gwa'n* with inorganic *a* because of preceding *n*) (146.6)
dal-yewey- run away	*dal-yewey*a'k'^{w} he ran away with it
wī^{i}- travel	*wī*k'wa he travels around with it 14.2
lō^{u}l- play	*lō^{u}l*agwa'$^{\varepsilon}$*n* I play with him (124.14)
daway- fly	*bā^{a}-wa-daway*a'k'^{w} he flies with it
henen- use up, be satiated	*henen*agwa'$^{\varepsilon}$*n* I eat it all (43.12)
yewey- return	*yewey*agwa'$^{\varepsilon}$*n* I fetch them back (30.1; 47.13)
yaway- talk	*yaway*agwa'$^{\varepsilon}$*n* I talk about it (lit., I talk having it) 108.12
he^{e}l- sing (non-aorist)	*nãx-ī-he^{e}l*agwa'*n* I shall sing with pipe in hand
helel- (aorist)	*ī-hele^{e}l*agwa'$^{\varepsilon}$*n* I sing with it in hand

Intransitive	Comitative
t!obagas- lie like dead (non-aorist)	*nãx-da-t!obaga'sgwank'* he lies like dead with pipe in mouth
ūyū^{ɛ}s·- laugh	*ūyū'^{ɛ}s·gwa^{ɛ}n* I laugh at him
baxam- come	*da-yawīx baxama'k'^{w}* they came talking (literally, mouth-talking they-came-with) 126.2
biliw- fight, jump	*lõ^{u}x biliw*agwa*nana'k'* we play at fighting (literally, play we-fight-having) *wa-bilī^{i}*gwa'^{ɛ}n I jump having it (=**biliugwa'^{ɛ}n*, see §7)

If the object of the comitative verb is other than a third person, the suffix *-gw-* is followed by the indirective *-d-*, which does not ordinarily appear as such, but unites with the immediately following transitive connective *-x-* to form *-s-;* a connective *-a-* is inserted between the *-gw-* and the *-s-*, so that the whole comitative suffix for a first or second personal object is *-(a)gwas-*. Examples are:

*ūyū'^{ɛ}s·*gwa*si* he laughs at me
*henen*agwa'*sam* he ate us up (192.15)
*bā^{a}-wa-dawiy*agwa'*sbink'* he will fly up with you

The form *-gwad-* of the comitative suffix appears as such preceding *-in-* (umlauted from *-an-*) in the third personal object of indirect FOR-forms built up on intransitive verbs derived from transitives:

*lük!ü'x*agwad*ini^{ɛ}n* I trap for him (probably = I cause [*-in*] him to be having [*-gwad-*] [some one] to trap [*lük!ü-xa-*] [for him]); but *lük!ü'x*agwa*si* he traps for me
*p'ele'x*agwad*ini^{ɛ}n* I go to war for him; but *p'ele'x*agwa*si* he goes to war for me

It is highly probable, however, that in such cases the *-gwad-* is to be definitely analyzed into a comitative element *-gwa-* + an indirective element *-d-* (*-t'-*) TO, FOR; this seems to be pointed out by the fact that when the FOR-object becomes identical with the subject, i. e., when the verb becomes an indirect reflexive (FOR ONE'S SELF), the *-d-* immediately precedes the regular reflexive suffix *-gwi-*, leaving the causative suffix *-(a)n-* between it and the comitative suffix *-gw-*:

*lük!ü'x*agwa*nt'gwide^{ɛ}* I trap for myself (probably = I cause [*-an-*] myself [*-gwi-*] to be having [*-gw-*] [some one] to trap [*lük!ü-xa-*] for [*-t'-*] [me]).

Comitatives in *-gw-* are formed not only from intransitivized transitives in *-xa-* (e. g., *ī-lübü'xak'ʷ* SHE POUNDS WITH IT IN HAND [55.10]; 56.1), but also from non-agentive intransitives in *-x-* (see below, § 56). Examples are:

Non-agentive	Comitative
sgō'ᵘsdeᵋ (= *sgō'ᵘd-x-deᵋ*) I cut (without implied object), am across (148.8)	*sgō'ᵘsgwaᵋn* I got tired[1] of it (21.6)
heᵋ-meᵋ-t'bō'ᵘk't'bax he lay down with his arms folded, lay rolled up and put away (cf. *heᵋ-meᵋ-t'bō'ᵘk't'bagaᵋn* I roll it up and put it away)	*heᵉᵋ-wa-t'bōᵘk't'ba'x*gwa he lay down with it clasped in his arms 154.6
t'geᵉya'lx it runs around, rolls	*wa-t'geᵉya'lx*gwaᵋn I roll with it
	*wa-i-s·ügü's·üx*gwaᵋn I am sleepy (literally, something like: I am confused having sleep)
ba-i-s·ili'x he landed	*ba-i-s·ili'x*gwa he landed with (his canoe) 13.5

The obverse, as it were, of these transitive forms in *-x-gwa-*, is given by certain rather curious Class I intransitive forms in *-x-gwa-* built up on intransitive, not, like normal *-x-* derivatives, on transitive stems; they may be literally translated as TO BE WITH (or HAVING) (SOMETHING) DOING or BEING. Thus from the intransitive aorist *dak'-limim-* (TREE) FALLS ON TOP OF is formed the intransitive *dak'-limīmxgwadeᵋ* IT FALLS ON TOP OF ME (108.12), in which the logical subject (TREE) becomes an implied object, while the real object or goal of motion (ME) is treated as the grammatical subject. The form quoted would have to be literally translated as I AM WITH (or HAVING) (IT) FALLING ON TOP OF (ME). I (AS TREE) FALL HAVING IT, TOGETHER WITH IT would probably be something like **dak'-limīⁱmgwa'ᵋn*. Morphologically similar to *dak'-limīmxgwadeᵋ* are doubtless:

*hewe'hōx*gwa*deᵋ* I yawn (literally, I am having —[?])
*yele'ᵋ*sgwa*deᵋ* (= *yelet!-x-gwa-*) I am sweating (literally, I am —having it, i. e., perspiration [?])

With such an interpretation, the form *dak'-limīmxgwadiniᵋn* I CHOP IT ON TO HIM becomes readily intelligible as a causative built

[1] *sgō'ᵘsdeᵋ* and *sgō'ᵘsgwaᵋn* are morphologically quite clearly related, though in signification the latter form has widely departed from what must have been its primary meaning.

up on an intransitive in *-xgwa-*; literally translated it would read I CAUSE (*-in*) HIM TO BE WITH (*-gwad-*) (IT) FALLING (*limī^{i}m-x-*) ON TOP OF (*dak'-*) (HIM). This chimes in well with the interpretation given above of the really very perplexing "for" forms in *-gwadin-* and *-gwant'gwi.*

As will have been noticed from some of the examples already given (*yawayagw-* TALK ABOUT, *ūyūī^{is}s·gwa-* LAUGH AT, *sgō^{u}sgwa-* BE TIRED OF, *henenagw-* CONSUME), the primarily comitative meaning of the *-gw-* suffix is sometimes greatly obscured, at times practically lost. Other examples illustrating this weakening of the fundamental signification are:

Intransitive	Comitative
hoyod- dance	*hoyod-agw-* dance (a particular kind of) dance 100.15; 102.9
bā^{a}-yā^{a}n- go up	*bā^{a}-yā^{a}n-gw-* pick up 24.3; 59.15
ba-i-ginig- go out to, come	*ba-i-ginī^{i}-gw-* take out (no leg motion necessarily implied)
xeben- do (so)	*xebe^{e}y-agw-*[1] hurt, destroy 136.23

§ 47. Indirective *-d-*(*-s-*)

The *-d-* of the indirect object never appears in its naked form (except, as we have seen, in certain forms in *-gwad-;* see also under *-d-* in petrified suffixes), but always combined into *-s-* with the following element *-x-* that serves to bind pronominal objects of the first and second persons to the verb-stem with its derivative suffixes (see §64). The indirect object of the third person is not normally expressed by this *-d-*, but, like an ordinary direct third personal object, is left unexpressed, the general character of the verb being impliedly indirective. As a matter of fact, an incorporated pronominal indirect object is used only when the direct object is of the third person, never of the first or second; and, since the pronominal object of the third person is never expressed in the verb, this means that what is translated as the indirect object is in reality morphologically the direct object of the verb. The indirective idea is merely a derivative development; or, more correctly, certain transitive verbs with indirective "face" require an *-s-* (=*-d-*+*-x-*) instead of *-x-* with an incorporated object of the first or second person. I GIVE IT TO HIM is, then, really rendered in Takelma by I-HIM-GIVE; I GIVE IT TO YOU, by I-

[1] For the change of non-causative *-n-* to *-y-* (*-i-*) cf. *k!emèi-* and *k!emee*n- MAKE.

YOU-GIVE; I GIVE HIM FOOD, by I-HIM-FOOD-GIVE, in which the logically indirect object HIM must be looked upon as the direct object of the verbal complex FOOD-GIVE (FOOD, not being a pronominal object, is loosely incorporated as a prefix in the verb); I GIVE YOU FOOD, by I-YOU-FOOD-GIVE, the pronominal combination I YOU being expressed at the end of the verb-complex in the same form as in a simple transitive like I-YOU-SEE, except that it is preceded by *-s-* instead of *-x-;* such combinations as I GIVE YOU TO HIM, ME and HE GIVES ME TO YOU, HIM can not be expressed by one verb-form. In these latter cases the grammatical object of the verb is no longer indirectly affected by the action; hence another, though probably etymologically related, verb-stem is employed, while the indirect object is expressed by a local phrase outside the verb: I GIVE YOU TO HIM (=I-YOU-GIVE [not indirective "face"] HIM-TO), *-x-*, not *-s-*, preceding the combination I YOU. The idea of TO in intransitives like GO, RUN, and so on, is regularly expressed by such an extra-verbal local phrase. Many verbs that, from our point of view, seem ordinary transitives, are in Takelma provided with the indirective *-s-*. Examples illustrating the use of this *-s-* are:

Aorist	Future
ogoyi'^{ɛ}n[1] I give it to him 180.11	*o'k'in* (170.13; 180.9,16)
ogu'sbi^{ɛ}n I give it to you 23.3	*o'sbin* (178.15)
(*oyõnxbi^{ɛ}n* I give you)	(*oīnxbin* I shall give you)
wĕt'gi^{ɛ}n (for *-g-* see §42, 5) I took it from him 76.1	*wede'k'in* (17.10,11)
wĕsbi^{ɛ}n I took it from you (17.3)	*wede'sbin* (16.10,11)
al-da-p'õ^{u}p'iwi^{ɛ}n I blew at it (15.1)	
al-da-p'ũp'ausbi^{ɛ}n I blew at you	
wã^{a}giwi'^{ɛ}n I brought it to him (for *-w-* see §42, 11) (176.17)	*wagawi'n* I shall bring it to him
wa^{a}ga'sam[2] he brought it to us (194.11)	*wege'sink'* he will bring it to me
eiyi'^{ɛ}n I hurt him	
eĭsbi^{ɛ}n I hurt you	
gayaũ he ate him 54.5	*ga-iwa'nk'* 130.5
gayaũsbi^{ɛ}n I ate you	*gaĭsbink'* he will eat you 26.8
al-yebebi'^{ɛ}n I showed it to him (77.8)	*al-ye^{e}bi'n* I shall show it to him
al-yebe'psbi^{ɛ}n I showed it to you	*al-yĕpsi* show it to me!

[1] The *-y-* is peculiar to aorist forms of this verb with a third personal object (*ogoyi'ɛ'* YOU TO HIM; *ogoĭhi* HE TO HIM 122.11) and to the third personal passive aorist (*ogoyi'n* HE WAS GIVEN IT 15.2)

[2] With connecting *a* before *s*. In *o'sbin* above *-g-* + *-s-* gives *-s-*, but **wĕsdam* (=*wee-g-sdam*) would become confused with *wĕsdam* (=*wee-d-sdam*) YOU TOOK IT FROM ME.

Some verbs that belong here show the *-s-* only in the aorist, other forms having only *-x-*. Examples are:

Aorist	Future
he$^{e\varepsilon}$-ī^{i}wi′$^{\varepsilon}$n I went away from him 23.12	*he$^{e\varepsilon}$-īwi′n*
he$^{e\varepsilon}$-īūsbi$^{\varepsilon}$n I went away from you (184.14,15)	*he$^{e\varepsilon}$-īwi′xbink‘*
yī^{i}mīsbi$^{\varepsilon}$n I lent it to you 98.15	*yimi′xi* lend it to me! 98.14, 21
ī-t!aūt!iwi$^{\varepsilon}$n I catch him 33.4	*ī-t!ā^{a}wi′n* (33.8)
ī-t!aut!a′usbi he caught you	*ī-t!āūxbink‘* (140.15)
naga′$^{\varepsilon}$n I said to him 72.9	*nā^{a}gi′n* (15.15; 196.20)
naga′sbi$^{\varepsilon}$n I said to you 108.4	*nãxbin* (60.3)
dak‘-da-hā^{a}li′$^{\varepsilon}$n I answered him (61.6)	*dak‘-da-hala′hin*
dak‘-da-hālsbi$^{\varepsilon}$n I answered you (134.20)	*dak‘-da-hala′xbin*
sā^{a}nsa′$^{\varepsilon}$n I fight him (110.20)	*sana′n* (28.15; 33.9)
sā^{a}nsa′nsbi$^{\varepsilon}$n I fight you	*sana′xbin*

§ 48. Indirective *-(a′)ld-*

This suffix is probably composed of the continuative *-l-* (see § 42, 9) and the indirective *-d-*, though, unlike the latter suffix, it is always employed to transitivize intransitives, a characteristic intransitive element of the aorist (e. g., *-i-*) regularly remaining. After vowels, the suffix appears simply as *-ld-;* after consonants and semivowels, a connective *-a-* is generally introduced, which, when accented, receives a falling pitch. The general idea conveyed by the suffix is that of purposive action toward some person or object, so that it may be conveniently translated by MOVING AT or TOWARD, IN ORDER TO REACH, GOING TO GET. Examples of its use are:

hiliūt‘e$^{\varepsilon}$ I climb	*hiliw*a′ld*a$^{\varepsilon}$n* I climb for it (77.8)
yada′t‘e$^{\varepsilon}$ I swim (*yadad-*)	*yadad*a′ld*a$^{\varepsilon}$n* I swim for him (to save him from drowning) *yeded*a′ls*i* he swims for me
bili′$^{u\varepsilon}$ he jumped 32.13; 78.11	*bili*w*a*′ls*a$^{\varepsilon}$n* they fought (literally, they jumped at, for each other) 27.4
da-t!aya′$^{i\varepsilon}$ they went to get (something) to eat 75.9	*da-t!aya*ldi′$^{\varepsilon}$n I went to get it to eat; *da-t!ayã*lt‘ he went to get it to eat (*ã* shows by its accent that it is part of stem) 76.9
da-dā^{a}ya′$^{\varepsilon}$t‘ (future) (33.9)	*da-dā^{a}ld*i′n (future) (33.9)
sgele′$^{u\varepsilon}$ he shouted 59.4; 90.8	*sgelew*a′lt‘ he shouted to, for him 59.4; (94.1)

wiliw- go, run	*wiliwa*'lda^{s}*n* I go and show it to him *de-wiliwa*'lda^{s}*n* I fight him (27.3)
xudu'^{s}*m* he whistled	*xuduma*'lda^{s}*n* I whistled to him (33.16)
ligi'*k*'^{u} he fetched home (game) 70.3; 128.12; *ligi'*^{s} he came home (with game) 124.22	*de-ligi*a'lt' he fetched it for him to eat 126.9; 130.9
	*yonob*a'lt' they held nets waiting for fish 32.1

In *wõ*^{u}*lt'* HE WENT AFTER IT 29.12 the *-ld-* is confined to the aorist; non-aorist forms have the stem *woo-* without suffix: *woo'n* I SHALL GO AFTER IT (162.8,10).

§ 49. Indirective -(*a'*)*md-*

There hardly seems to be any significant difference between this and the preceding suffix, except that the indirective force of -(*a'*)*md-* seems in many cases to be much less clear and that it may be appended to transitive as well as to intransitive stems. It is quite probable that in some of the examples the *-m-* of the suffix is really the dissimilated product of an original *-l-* because of an *-l-* of the stem (see § 21); yet this explanation could not be made to apply to all the cases. Those forms that contain a radical *-l-* are given first:

Simple form	-(*a'*)*md-*
	t!ī^{i}*l*a'mda^{s}*n* I fish for (salmon)
	*ts·!elel*a'mda^{s}*n* I paint him (=I put paint—*s·e'* ^{el}—on to him)
	s·in-delega'ms*dam* you put holes in my nose 22.2
malagia'^{us} they are jealous (cf. *malag-*, *malagan-* tell)	*malaga*'ms*bi*^{s}*n* I am jealous of you
yala'k'de^{s} I dive (61.8)	*yalaga*'mda^{s}*n* I dive for it (60.10)
(*lagag-* feed)	*lagaga*'mda^{s}*n* I paid him (184.17)
legwe'l he sucked it (186.18)	*legwel*a'mda^{s}*n* I sucked it out of him
(*geleg-* twirl)	*dī*^{is}*-al-gelega*la'mda^{s}*n* I tie his hair up into top-knot (172.3)
ūyūts!- laugh	*dī*^{s}*-ūyū'ts!*amda^{s}*n* I fool him
ya'mt' ask him! 70.6	*yamd*a'mt' (go and) ask of him! 74.10
	*p'õy*amda^{s}*n* I smoke them out (76.11)
k!emen- make	*bā*^{a}*-k!emen*a'mda^{s}*n* I make him ready to go (76.13)
dak'-t'gū'^{u}*ba*^{s}*n* I put (hat-like object) over as covering	*dak'-t'gū'*^{u}*b*amt' she covered it (basket) over 61.9

§ 50. Indirective -(*a*)*n*(*an*)- "for"

From transitives, never from intransitives, are formed verbs in -(*a*)*n* or -(*a*)*nan*- (the first -*a*- is the connective vowel already spoken of) signifying TO DO (the act expressed by the verb-stem) FOR, IN BEHALF OF (the object of the verb). No rule can be given as to when -(*a*)*n*- or -(*a*)*nan*- is to be used, the two suffixes being frequently found to interchange in the same form. It is not likely that -(*a*)*nan*- is a mere duplication of the simpler -(*a*)*n*-, as no other case of suffix-reduplication could be shown to exist in Takelma, but rather a compound suffix consisting of two distinct elements that happen to be homonymous. Neither of the -(*a*)*n*- elements in-(*a*)*nan*-, however, can be identified with either the causative -(*a*)*n*- or the petrified -(*a*)*n*- of certain transitive verbs (see § 42,10), for the full -(*a*)*nan*- suffix is found suffixed to them (e. g., *lohō^{u}ninini'^{e}n* I KILLED HIM FOR HIM [= I CAUSED HIM TO DIE FOR HIM]). As in the case of the ordinary indirect object-suffix -*s*-, only the third person (and that, as far as the pronoun is concerned, by implication) is tolerated as the logical object, the grammatical object being always the person in whose behalf the action is done. If the formal (i. e., indirect) object of the verb is of the third person, the -(*a*)*n*- or -(*a*)*nan*- is nearly always followed by the "instrumental" *i* (see § 64), an umlaut of the suffix to -(*i*)*n*- or -(*i*)*nin*- necessarily resulting (see § 8, 3c). The longer form of the suffix -(*a*)*nan* is apt to be limited to the aorist forms with third personal object; non-aorist forms and aorist forms with first or second personal object generally have the shorter form of the suffix, -(*a*)*n*-. What was said above of a phonetic character in regard to the causative -(*a*)*n*- applies also here. Examples are:

Transitive	Indirective
wa^{e}-ī-t!oxõxi^{e}n I gather them (192.4)	*wa^{e}-ī-t!oxõxini^{e}n* I gather them for him
	wa^{e}-ī-t!ūxūxanxi he gathers them for me
ī-k!ū^{u}ma'n he fixed it (150.13; 186.16,18)	*ī-k!ū^{u}mininini'^{e}n* I fixed it for him
	ī-k!ūmininini'nk' he will fix it for him
	ī-k!ū^{u}manan'xi he fixed it for me
	ī-k!ūmana'nhi fix it for him!

Transitive	Indirective
lāᵃba′ᵋn I carry it (178.4,5,6)	*lāᵃbininiʹᵋn* I carry it for him *lāᵃba′nhaᵋn*
	leᵉba′nxi he carries it for me
ō′ᵘgaᵋn I trap them (78.5)	*lōᵘginini′ᵋn* I trap them for him *lō′ᵘginiᵋn*
	(*p!iyin*) *lū′ᵘganxi* he traps (deer) for me
	lō′k!inin I shall trap them for him
k!ạdāi- pick (aorist)	*k!adayini′ᵋn* I pick them for him *k!adāīhiniᵋn*
	k!edeya′nxi he picks them for him
k!āᵃd- pick (non-aorist)	*k!āᵃdinini′n* I shall pick them for him
deᵋ-ī-wī′ⁱgiᵋn I spread it out (120.1)	*deᵋ-ī-wī′ⁱganxi* he spreads it out for me
k!emen- make	*k!emenini′ᵋn* I make it for him *k!emnini′n* I shall make it for him
limimana′ᵋn I fell tree (cause it to fall) (108.11)	*limim*ininiʹᵋn I fell it for him
lohōᵘna′ᵋn I cause him to die (142.9)	*lohōᵘn*ininiʹᵋn I killed him for him *lohōᵘn*ana′n*hi* he killed him for him *lūhūᵘn*a′n*xi* he killed him for me
dõᵘmk'wank' he will kill him (116.18)	*dõᵘm*ana′n*k'wank'* he will kill him for him
sāᵃgwa′ᵋn I paddle it (60.1; 112.9)	*han-seᵉgwa′nsin* I am paddled across (literally, it, i. e., canoe, is paddled across for me)
p!ahanana′ᵋn I cause it to be cooked, done	*p!ahayinini′ᵋn*[1] I make it done for him

A number of transitive verbs in *-(a)n(an)-* in which the FOR (in behalf of) idea is not clearly apparent nevertheless doubtless belong here. Such are:

[1] For the change of suffixed *n* to *y* see § 46, second footnote.

al$^{\varepsilon}$-ō^{u}dini′$^{\varepsilon}$n I look around for him (92.27)
ī$^{\varepsilon}$-odoni′n I shall feel around for it
} { (*ō^{u}da′$^{\varepsilon}$n* I hunt for him [116.8])

*malag*ana′n*hi* he told him 30.15 (*mala′xbi* he told you [162.6])

It not infrequently happens in verbs where the logical relation existing between the subject and a first or second personal object can hardly be other than an indirect one, that the FOR idea is expressed by means of the simple transitive form with *-x-* or *-s-* instead of the more explicit indirective *-(a)n(an)-*, as shown in the following examples:

k!edèīsi he picks them for me (literally, he picks to me, alongside of *k!edeya*′n*xi* he picks them for me)[1]
me$^{\varepsilon}$bēp‘xip‘ come and chop out (a hole) for me (to enable me to get out) (literally, come and chop me!) 90.16
gel-ts!eye′mxi he hid it from me (158.7); but *gel-ts!ayamini′$^{\varepsilon}$n* I hid it from him

The idea of DOING SOMETHING FOR SOME ONE when the action is an intransitive one can not be expressed in the verb itself, so that periphrases of one kind or another are resorted to; e. g., I GO FOR HIM is expressed by I GO, HE HAVING SENT ME. In verbs that are intransitive only in form, but logically still transitive, that is, in transitive verbs with unexpressed object, the FOR idea is expressed by the complex suffix *-gwa′dan-* (with first or second personal object *-gwas-*), the analysis of which has been attempted above (see § 46). Thus we have (*p!iyin*) *lō′^{u}gin(in)i$^{\varepsilon}$n* I TRAP (DEER) FOR HIM built up on a transitive in both form and meaning (i. e., *lō′^{u}ga$^{\varepsilon}$n*), but *lük!ü′xagwadini$^{\varepsilon}$n* I TRAP FOR HIM built up on a formal intransitive (*lük!ü′xa$^{\varepsilon}$*). The idea of FOR, IN BEHALF OF ONE'S SELF is rendered in transitive verbs by adding to the indirective suffix *-(a)n(an)-* the regular reflexive suffix *-k‘wi-* (*-gwi-*):

dō^{u}mana′nk‘widā^{a} he will kill them for himself
t!ūmūk‘wank‘wide$^{\varepsilon}$ I kill them for myself
de$^{\varepsilon}$-ī-wī′^{i}gank‘wide$^{\varepsilon}$ I spread it out for myself
han-se$^{\varepsilon}$gwa′nk‘wide$^{\varepsilon}$ I paddle myself across, really, I paddle (canoe) across for myself

[1] There must be a difference in signification, however, between *k!edèīsi* and *k!edeya′nxi*. The former probably means "he picks them for me, i. e., in order to give them to me;" the latter "he picks them in my behalf (perhaps because I am sick and can not do so myself.)" Compare also *de$^{\varepsilon}$īse′exi* HE OPENED THE DOOR FOR ME (i. e., in order to let me in) (63.12) with *de$^{\varepsilon}$īse′eganxi* HE OPENED THE DOOR ON MY BEHALF (perhaps because I was unable to do so myself).

In intransitive verbs with implied transitive force a *-t'-* is inserted between the indirective *-(a)n(an)-* and the reflexive *-gwi-*:

lük!ü'xagwant'gwit' he traps for himself

Also this form in *-gwant'gwi-* was explained above.

§ 51. Indirect Reflexive *-gwa-*

By indirect reflexive is here meant action in reference to something belonging to one's self, not action in behalf of one's self. From the latter idea (expressed, as we have seen, by *-[a]n[an]k'wi-* and *-[a]n[an]-t'gwi-*) the indirect reflexive in *-gwa-* differs in being always found in a transitive setting; from the comitative *-(a)gw(a)-* it differs phonetically in being formed only from transitive verbs with expressed object and in the constancy of the final *-a-* (third person aorist *-k'wa*, not *-k'w*). Examples of its use are:

s·in-^{e}ī-*t'gili'^{e}s*gwa [1] he scratched his own nose 14.11; 15.7

mānx al-*nū'^{u}*k'wa (=*gw-k'wa*) he painted his own face (cf. *nō^{w}'gw-i^{e}n* I paint it)

*ī-gaxaga'x*gwa^{e}*n* I scratch myself, i. e., my own (cf. *ī-gaxagixi'^{e}n* I scratch him)

ī-*p!ī^{i}-nō'^{u}*k'wa warm your nands! (188.20) (cf. *ī-p!ī^{i}-nō'^{u}k'wi^{e}n* I warm his hands)

s·in-*dɔ^{e}le'p'*gwa he stuck it into his own nose (cf. *dā^{a}-dele'p'i* he pierced his — another's — ear)

bīls ^{e}al-*giliga'l*k'wa^{e}*n* I covered myself with moss (48.14) (cf. *bīls ī-giligili'^{e}n* I covered him with moss)

bīls ^{e}ī-*giliga'l*k'wa^{e}*n* I covered my hands with moss

gwen-*p!iyi'n*k'wa he lies on pillow (probably = he causes his neck to lie) [2]

*k!edèī*k'wa^{e}*n* I pick them for myself (literally, I pick my own)

de-*k'iūk'au*k'wa*k'* he brandished it before his face 172.11

*ī-k!ū^{u}ma'n*k'wa he prepared himself, got ready 172.2 (cf. *ī-k!ū^{u}-ma'n* he fixed it, got it ready 114.7)

It will be noticed that whenever what in English we are accustomed to consider a direct reflexive is really such only in form, not in fact, the Takelma idiom requires the indirect *-k'wa-* form, not the direct reflexive in *-gwi-*. Thus, I SEE or SCRATCH MYSELF is not logically a reflexive in the same sense as I KILL, DROWN, or HANG MYSELF, the former involving strictly action on what belongs to the subject, not on the subject itself: I SEE or SCRATCH MY OWN (FLESH). Still such distinctions can

[1] The object, generally a body-part, to which the action refers is printed in Roman characters.

[2] *p!iyin-* connected with *-p!eyen-* LIE?

hardly be insisted upon; much depends on idiomatic usage. The indirect reflexive suffix, it would seem, is employed only when the direct object is incorporated in the verb; if the direct object is taken out of the verb-complex and provided with a possessive pronoun, all ambiguity as to the relation between subject and object is removed and the *-gwa-* falls out. Thus we have *dā^{a}-de^{e}le'p'gwa* HE PIERCED HIS OWN EAR with indirect reflexive *-gwa-* to show the possession of the object (*dā^{a}-* EAR) by the subject; *dā^{a}dele'p'i* would mean HE PIERCED ANOTHER'S EAR. The former sentence can also be expressed more analytically by *dānxdagwa hadele'p'i* HIS-OWN (*-dagwa*) -EAR HE-IN-PIERCED-IT; *dānxda hadele'p'i* would then have reference to the piercing of another's ear. In other words, the reflexive idea is expressed in the verb or in the noun according to whether the latter is incorporated or independent.

INTRANSITIVE SUFFIXES (§§ 52-57)

§ 52. General Remarks

Under this head are included such suffixes as intransitivize a transitive verb by removing the object (*-xa-*), transferring the object from without to within the sphere of the subject (reflexive, reciprocal), or changing the character of the action altogether (non-agentive, positional). The passive intransitivizes by removing, not the object, but the subject, the former remaining in exactly the same form in which we find it in the corresponding transitive; the voice is characterized by peculiar suffixes that differ for the various tense-modes, and which, following as they do the pronominal elements of the verb, will receive appropriate treatment in discussing the purely formal verbal elements. The normal transitive, its ancillary passive, the active intransitive (*-xa-*), the reflexive, the reciprocal, the non-agentive, and the positional may be looked upon as the seven voices of a transitive verb, of which only the first five (possibly also the sixth), however, can be freely formed from any transitive stem. Of the seven voices, the first two are provided with a distinct set of pronominal object (and transitive subject) suffixes; the third and the fifth, with Class I intransitive subjects; the remaining, with Class II intransitive subjects.

Before giving examples of the intransitive suffixes, it may be useful to rapidly follow out a particular transitive stem (*dink!-* STRETCH OUT [= base *din-* + transitive petrified suffix *-k!-*]) in its various voices. First

of all, we may form an ordinary active transitive verb with expressed object by attaching to the verb or aorist stem the appropriate pronominal suffixes: *ba-i-de-di'nik!a^{ɛ}n* I STRETCH IT OUT (LIKE A RUBBER BAND or the like) (62.1). Secondly, from this may be formed a passive by the addition to the stem (*dinik!-*) of the pronominal object and characteristic passive suffix: *ba-i-de-di'nik!an* IT IS or WAS (ACTIVELY) STRETCHED OUT. Thirdly, the transitive stem may be made intransitive by a failure to specify the object: *ba-i-de-di'ni^{ɛ}xade^{ɛ}* I STRETCH (SOMETHING) OUT. Fourthly, a direct reflexive is formed by the suffix *-gwi-: ba-i-de-di'ni^{ɛ}k'wide^{ɛ}* I (actually, if such were possible) STRETCH MYSELF OUT, in as literal a sense as in, e. g., I KILL MYSELF. Fifthly, the transitive form may be made reciprocal by the compound suffix *-x-*(or *-s-*)*an-: ba-i-de-di'ni^{ɛ}xa^{ɛ}n* THEY (actively and literally) STRETCH ONE ANOTHER OUT. Sixthly, the non-agentive voice is formed by a suffixed *-x-: ba-i-de-dini'^{ɛ}x* IT STRETCHES OUT (144.14), in the sense in which a sore might be supposed to spread, without volition and without apparent agency; this particular form is idiomatically employed to refer to the stretching out, advancing, marching, of a single column, the figure here being evidently that of a long string-like line moving out without distinctly sensed agency. Similarly, *bā^{a}-dini'^{ɛ}x* (CLOUDS) SPREAD UP IN LONG STRIPS 13.3 are not actively spread out by some one, do not spread out some unexpressed object, are not conceived of as actually spreading themselves out, and are not conceived of as being in the static, purely positional condition of lying extended. Seventhly, the last, positional voice is expressed by an aoristic *-ī^{i}-*, non-aoristic *-as-: dink!ī* IT LIES SPREAD OUT, referring to a long string or other elongated body extended on the ground; future *dink!a'sdā^{a}*. A synopsis for the second person singular (and reciprocal plural) of *dink!-*(*dinik!-*) SPREAD of the seven voices in the six tense-modes is given in Appendix A. The intransitive suffixes will now be taken up in order.

§ 53. Active Intransitive *-xa-*

The *-a-* of this suffix is a constant element except before a personal ending beginning with a vowel: *p'ele'xik'* WE GO TO FIGHT. Like other non-radical *-a-* vowels it may be umlauted to *i*: *s·om-lühūīxiya^{uɛ}* THEY (indef.) OPERATE AS *s·omloho'lxa^{ɛ}s* (class of medicine men) 172.14. The final consonant of the aorist stem of verbs of Type

8 falls out before the *-xa-*, also an indirective *d* (including the *-d-* of *-[a]md-*, *[a]ld;* a final radical *-d-*, however, unites with *-xa-* to form *-sa-*). Verbs of Type 5 employ not the aorist, but the verb-stem, in the aorist of the *-xa-* derivative (cf. the parallel phenomenon in the formation of the frequentative, § 43, 1 and 6; for exceptions see § 40, 5), inserting the repeated stem-vowel between the fortis consonant of the stem and the suffix; *-xa-* derivatives of Type 5 verbs thus belong to Type 2. For the vocalism of the stem of *-xa-* forms, see § 31, 5. Verbs in *-xa-* of Types 2 and 3 regularly have a short second stem vowel, even if the quantity in the primitive verb is long; this short vowel may, however, be secondarily lengthened, with falling accent, to express a frequentative idea. In non-aorist forms the stress tends to fall on the *-xa-*. Verbs in *-xa-* can be formed, of course, only from transitives, and, although in form they are strictly intransitive, they always logically imply an object. Examples of *-xa-* are:

*lūbū'*xa^{ɛ} she pounded 16.9; *ī-lū'pxagwank'* she will pound having it (pestle) 55.10 (aorist transitive *lobo'p'* she pounded them 16.9)

*t!ī^{i}la'm*xad*e^{ɛ}* I went fishing (*t!ī^{i}la'mda^{ɛ}n* I fished for them)

*k!ā^{a}wa'n*xa^{ɛ} she sifts 57.15 (*k!ā^{a}wa'nda^{ɛ}n* I sift acorn meal [16.10])

*dak'-t'ek!e'*xa^{ɛ} he smokes 96.23 (Type 5 *dak'-t'e'^{e}gi^{ɛ}n* I give him to smoke [170.13])

*p!ebe'*xa^{ɛ} he beat off (bark) 55.6 (*p!abab-* chop [90.11])

*lebe'*sad*e^{ɛ}* I sew (*lebeda'^{ɛ}n* I sew it)

*sgūt!ū'*xa^{ɛ} he is cutting 92.2 (Type 5 aorist *sgō^{u}d-* 72.10)

*al-xīk!i'*xa^{ɛ} he looked around 102.12 (Type 5 aorist *al-xī^{i}g-* 124.8)

*lūk!ü'*xa^{ɛ} he traps (Type 5 aorist *lō^{u}g^{w}-* 78.5); future *lü'^{ɛ}x^{w}agwa-dinin* I shall trap for him

*wā^{a}-himi'*xad*e^{ɛ}* I was talking to somebody (*wā^{a}-himida'^{ɛ}n* I talked to him [59.16])

*dak'-da-hele'hal*xad*e^{ɛ}* I always answer (*dak'-da-hā^{a}li'^{ɛ}n* I answer him [146.14])

*dak'-hene'*xa^{ɛ} he waits; future *dak'-hen*xa't'*e^{e}* I shall wait (*dak'-hene^{e}da'^{ɛ}n* I wait for him)

*yimi's·*a^{ɛ}(= *-s'-*xa^{ɛ}) he dreams; future *yims·a't'e^{e};* imperative *yims·a'*

In *k!eme'n*xad*e^{ɛ}* I WAS MAKING, WORKING (future *k!em*xa't'*e^{e}*) the loss of the *-n-* in the non-aorist forms (cf. *k!emna'n* I SHALL MAKE IT [28.14]) may be due to a purely phonetic cause (see § 11)

§ 54. Reflexive *-gwi-*

The final consonant of the aorist stem of some verbs of Type 8 is eclipsed, with lengthening of preceding vowel, also before the reflexive *-gwi-* (see § 40, 8), in the case of others it is preserved. Where the *-gwi-* reflexive is derived from indirect transitives in *-d-* (*-amd-*, *-gwadan-*), there is often practically no difference in signification between it and the indirect reflexive *-gwa-*. Examples of *-gwi-* are:

*t!omõ*k'wi*de*$^{\varepsilon}$ I kill myself (from *t!omom-*)
al-yebe'p'gwi*t*' he showed himself (*yebeb-*)
al-xī'^{i}k'wi*t*' he looked at himself
*p!agãn*k'wi*de*$^{\varepsilon}$ I bathed (literally, I caused myself to bathe; cf. *p!agā*^{a}*na'*$^{\varepsilon}$*n* I bathe him)
se^{e}*la'mt*'gwi*de*^{e} I shall paint myself (*se*^{e}*la'mdan* I shall paint him)
*t'gwaxāī*k'wi*de*$^{\varepsilon}$ I tattooed myself (*t'gwaxāī* he tattooed him)
t'gwā^{a}*xa'nt*'gwi*de*^{e} I shall tattoo myself (=for myself)
*ī-gis·iga's·*gwi*de*$^{\varepsilon}$ I tickle myself
*al-wa-ts!eyē*k'wi*de*$^{\varepsilon}$ I washed myself with it
dā^{a}*-delega'mt*'gwi*de*$^{\varepsilon}$ (=*dā*^{a}*-dele'p'gwa*$^{\varepsilon}$*n*) I pierce my ears
(*yūk'*) *k!emēn*k'wi*t*' they made themselves (strong) 27.12
*xuma ogoī*k'wi*de*$^{\varepsilon}$ I give food to myself (=I food-give myself)
*ī-lesgi'*k'wi*de*^{e} I shall touch myself

Before the imperative endings *-p'*, *-p'anp'* the reflexive suffix becomes lengthened to *-gwī*^{i}*-:*

k!ēt'gwī^{1}*p'*[1] pick them for yourself!
de^{e}*gwa'lt*'gwī^{1}*p'anp'* take care of yourselves! 126.20; (128.24)

The reflexive of *naga-* SAY TO is irregular in that is is formed not from the transitive stem, but from the corresponding intransitive *nagai-* SAY: *nagaīk'wit'* HE SAID TO HIMSELF 104.1 (cf. *nagaīk'wa*, §62).

§ 55. Reciprocal $\left\{ \begin{matrix} -x \\ -s \end{matrix} \right\}$*-an-*

The *-x-* and *-s-* preceding the characteristic reciprocal *-an-* (umlauted *-in-*) suffix are nothing but the connective consonant of direct and indirect transitive verbs respectively, the choice in the reciprocal form between the two depending entirely upon which is used in the corresponding simple transitive. A difference, however, in the use of this *-x-* (*-s-*) between the transitive and reciprocal is found in so far as in the latter it appears with a third as well as first and second

[1] Indirect reflexive (for oneself) in signification, though without indirective suffix of any kind. The form is thus analogous to such as *k!edèīsi* mentioned above (see §59). That the reflexive action is thought of as indirective in character seems to be indicated by the ablaut of the stem (*klāad-*); see §31, 6.

personal object. The phonetic form of what precedes the *-x-* (*-s-*) is the same as in the transitive from which the reciprocal is derived. The reciprocal element *-an-* is the only one of the verbal suffixes that is placed between the connecting *-x-* and the personal endings, so that it may rightly be looked upon as in a way equivalent to the incorporated objective pronouns. Examples of *-x-an-* are:

*k!oyõ*xin*ik*ʻ we go together, accompany one another (33.15)
*t!èũ*xin*iba*ˢ*ni* let us play shinny!
*ī-lats!a'*xin*ik*ʻ we touch one another
*al-s·in-lõ'*ᵘxaˢn they meet each other (literally, they thrust noses to one another)
*t!omõ*xaˢn they kill one another (33.10)
*gel-wayãn*xaˢn they were sleeping together (literally, they caused each other to sleep facing each other) 190.2
*al-xī'*ⁱxaˢn they looked at each other

Examples of *-s-an-*, i. e., of indirect reciprocals, are:

*naga'*saˢn they said to each other 31.9 (cf. *naga'sbi*ˢ*n* I said to you [100.1]); future *nãxan*ˢ*t*ʻ (cf. *nãxbin* [60.3])
*sā*ᵃ*nsa'n*saˢn they fight one another (23.14; 184.13) (cf. *sā*ᵃ*nsa'ns-bi*ˢ*n*); future *sana'*xanˢ*t*ʻ (23.15) (cf. *sana'xbin*)
*he*ᵉˢ*-īūs·a*ˢn they went away from one another (cf. *he*ᵉˢ*-īūsbi*ˢ*n* [184.14]); future *he*ᵉˢ*-īwi'*xanˢ*t*ʻ (cf. *he*ᵉᵉ*-īwi'xbin*)
*lā*ᵃ*ma'l*saˢn they quarreled with each other 27.2; 86.10
*wā*ᵃ*-himi'*saˢn they talked to one another 124.14 (cf. *wā*ᵃ*-himi'sbi*ˢ*n*)
*lō*ᵘ*gwa's·inibaˢ* let us play 32.5 (cf. *lō*ᵘ*gwa'sbin* future)
t!ü'lt!als·inibaˢ let us play at gambling-sticks (*t!ü'l*) 31.9
*al-sege'sak*ʻsin*ik*ʻ we keep nodding to one another; *seᵉk*ʻ*sa'k*ʻ-san*k*ʻ they nodded to one another (inferential) 172.10 (but unreduplicated *al-seᵉ'*xin*ik*ʻ we nodded to each other)

§ 56. Non-agentive *-x-*

The difference in signification between the non-agentive *-x-* and the intransitive *-xa-* may be well brought out by a comparison with the distinctly double signification of English intransitively used transitives. If such a transitive word as SPLIT be relieved of its object, it may be employed in two quite distinct senses, either to indicate the same sort of action that is expressed by the transitive, but without explicit direction (as, THE CARPENTER CAN SPLIT, i. e., can split beams, boards); or to indicate a spontaneous non-volitional activity resulting in a static condition identical with that induced by the corresponding transitive action (as, THE BEAMS, BOARDS, SPLIT, i. e., spontaneously

undergo motion resulting in that condition which is brought about by corresponding activity from without: THE CARPENTER SPLITS THE BEAMS, BOARDS). SPLIT in the former case is rendered in Takelma by *xā^{a}-ts·!iwi'xa^{ɛ}* (aorist transitive *ts·!iwi-d-);* in the latter, by *xā^{a}-ts·!iwi's·* (= *-ts·!iwi'd-x*). It is true that in some cases the use of *-x-* does not seem to be logically justified (e. g., *al-hūyūxde^{ɛ}* I HUNT 136.18; *al-ho-yoiya'^{ɛ}n* I HUNT THEM); but something must be allowed for idiomatic, not literally translatable usage. Such petrified suffixes as *-d-* do not drop out before the *-x-;* the repeated consonant of Type 8 verbs falls off as usual (yet cf. forms like *limīm-x-gwa-*, §46). Examples of the non-agentive are:

Transitive	Non-agentive
ī-k'wā'^{a}gwi^{ɛ}n I awakened him 16.4 (future *ī-k'wā'k!win*)	*k'wā'^{a}xde^{ɛ}* I awoke (16.3) (future *k'wā'^{aɛ}xde^{e}* [190.5])
leme'^{ɛ}k' they took them along 144.17	*leme'^{ɛ}x* they all went 136.7
ī-t'ge^{e}yili'^{ɛ}n I roll it	*t'ge^{e}ya'lx* it rolls
de-ts·!ibi'p' he closed door	*de-ts·!ibi'x* (door) shut
p!a-i-ha-u-t'gū'^{u}p' he upset it	*p!a-i-ha-u-t'gū'^{u}px* it upset 60.8
wa^{ɛ}-ī-t!eme'm he assembled them 110.3	*wa-t!emēxia^{uɛ}* people assembled 144.23
ha^{ɛ}w-ī-ha'nats!i^{ɛ}n I made it stop	*ha-u-hana'^{ɛ}s*(=*-a'ts!x*)it stopped (152.15; 198.9)
dī-sgü'yük!i^{ɛ}n I knock it down (48.7, 8)	*dī-sgü'^{iɛ}xk'* it fell (nobody pushing) (59.11; 62.1)
ī-gwidigwa't'i he threw them (108.21; 138.3)	*hü^{ū}lü'nk'wa* (tiredness) *gwidigwa's* (= *-a'tx*) he was plumb tired out (probably = he tottered with tiredness) 120.12
ī-smili'smili^{ɛ}n I swing it	*smili'smalxde^{ɛ}* I swing[1] (73.2)
bā^{a}-t'e'^{e}gi^{ɛ}n I lift it up (Type 5)	*bā^{a}-t'ek!e't'ax* it bobs up and down (60.11,13,14)

In some verbs *-alx-* (= continuative *-al-* + non-agentive *-x-*) seems to be quite equivalent to the intransitive *-xa-:*

geyewa'lxde^{ɛ} I am eating (31.3) (but, hortatory, *geīxaba^{ɛ}* let us eat)
le^{e}ba'nxde^{ɛ} I carry (178.6) (*lā^{a}ba'^{ɛ}n* I carry it [178.3,4])
ū^{u}gwa'nxde^{ɛ} I drink (see § 21).

The non-agentive character of verbs in *-x-* may be reflected in transitives (causatives) derived from them, in that in such causatives

[1] It may not be uninteresting to note, as throwing light on the native feeling for *-x-*, that this form sounded somewhat queer to Mrs. Johnson, for, as she intimated, one can't very well be swinging without either actively swinging one's self or being swung by some one.

the subject is not thought of as being the direct cause of the state or activity predicated, but is rather considered as indirectly responsible for it. Thus, from the aorist stem *t'gwilik!w-* (*t'gwili'^{ɛ}-x* WATER, BLOOD DROPS, DRIPS 58.1) are formed:

p!a-i-t'gwili'k!wana^{ɛ}n I (voluntarily) drop, spill it
p!a-i-t'gwili'^{ɛ}xna^{ɛ}n I have it drop (unavoidably), spill it (72.8,16)

§ 57. Positional-*ī^{i}-*

As we have already seen (§ 40, 15), this suffix, though of clearly derivational character, is generally, probably always, confined to the aorist. A positional verb in *-ī^{i}-* may be defined as expressing the state or condition resulting from the completed action of a transitive or non-agentive; e. g., *p!a-i-ha-u-t'gup!idī* IT (BOX-LIKE OBJECT) LIES UPSIDE DOWN is a verb expressing the result of the action defined in *p!a-i-ha-u-t'gū'^{u}ba^{ɛ}n* I UPSET IT and *p!a-i-ha-u-t'gū'^{u}px* IT UPSET 60.8. From one point of view the suffix *-ī^{i}-* serves to mark off a class of purely positional verbs, a different verb-stem being used for each general form-category of the object described. Such verbs of position are:

dink!ī long, stretched out object lies (transitive aorist *dinik!-*)
t'geits·!ī round object lies (138.24) (*t'geyets·!-*)
p'ildī flat object lies
t!obigī corpse, dead-looking body lies
s·einī box-like object with opening on top lies
p!a-i-ha-u-t'gup!idī box-like object with opening below lies (*t'gū^{u}b-*)
s·ugwidī curled-up object (like bundle of rope) lies
da-sgalī scattered objects (like grain on floor) lie
wīk!idī several objects heaped together lie (*wī^{i}g-*)
s·as·inī erect object is, he stands 34.1; 45.12; 77.9
s·u^{s}wilī sitting object (person) is, he sits, dwells 21.1; 57.2
k'ebilī absent object is, he is long absent 124.20

Not so clearly positional are:

lā^{a}lī (generally heard as *lā^{a}lē'*) it becomes 33.17; 45.3
yamlī he looks pretty

Of these verbs those that are directly derived from transitives, it will be observed, use in the aorist the verb-stem, not the aorist stem, of their simplex (thus *dink!-*, not *dinik!-*). The derivational *-(a)d-* (see § 42, 4) that seems to characterize a number of positional verbs can not be explained.

Certain Takelma place-names in *-ī* (or *-ī-k'*, *-i'-k'* with suffix *-k'* characteristic of geographical names) can hardly be otherwise explained than as positional verbs in *-ī^{i}-*, derived from nouns and provided with local prefixes defining the position of the noun. Such are:

Di^{ɛ}-danī[1] Table Rock (probably = rock [*da'n*] is [*-ī*] west [*di^{ɛ}-*]); west of the rock would be *di^{ɛ}-dana'* (cf. *dana't'k'* my rock)

Dak'-t'gamī-k' (cf. *Dak'-t'gamiya'^{ɛ}* person from D.) (= place where [*-k'*] elks [*t'ga'm*] are [*ī*] above, on top [*dak'-*])

Dal-dani'k' (cf. *Dal-daniya'^{ɛ}* one from D.) (=place where [*-k'-*] in brush, away from creek [*dal-*] is [*-ī*] rock [*da'n*])

han-xilmī ghost land (= across river [*han-*] are [*-ī*] ghosts [*xila'm*])

de-dī^{i}wī near the falls of Rogue River (=in front [*-de-*] are [*-ī*] falls [*dīū*])

§ 58. IMPERSONAL *-iau-*

Verging toward the purely formal (pronominal) elements of the verb is the suffix *-iau-*. Forms in *-iau-* are intransitive, and may be formed from all intransitives and all transitives with incorporated pronominal *object*, the function of the suffix being to give an indefinite, generalized collective, or impersonal, signification (cf. German MAN, French ON) to the always third personal pronominal (Class I intransitive) subject. Examples are:

yā^{a}nia'^{uɛ} people go 58.14; 152.5	future *yanaya'$^{uɛ}t'$*
wa^{ɛ}-ī-t!emēxia^{uɛ} people assemble 144.23	future *wa^{ɛ}-ī-dēmxia$^{uɛ}t'$*
e^{e}bia'^{uɛ} people are 192.7 (cf. *e^{e}bi'k'* we are 180.13)	
ts!āū yō^{u}ya'uk' there was (inferential) deep water (cf. 188.14)	
sā^{a}nsa'nsinia^{uɛ} fighting is going on 23.14	future *sana'xinia$^{uɛ}t'$*
dõmxbiya$^{uɛ}t'$ people will kill you (intransitive; but transitive with definite third personal subject *dõmxbink'* they will kill you) (33.10)	

In particular, states of the weather or season, necessarily involving indefiniteness of subject, are referred to by forms provided with the indefinite suffix *-iau-*. Examples are:

[1] This example is due to Mr. H. H. St. Clair 2d, from whose Manuscript Notes on Takelma it was taken. It is there written *Di'tanī'*.

lop!odia'$^{u\varepsilon}$ it is raining, hailing, or snowing 90.1; 152.11 (but definitely *nõx lop!o'ṭ'* it rains 90.1; (198.9); *ts·!elam lop!o'ṭ'* it hails; *p!ā'^{a}s lop!o'ṭ'* it snows 90.2; 196.7)

lep'niya'uk' it has gotten to be winter

samgia'$^{u\varepsilon}$ṭ' it will be summer (92.9)

samgiaugulugwa'n it is about to be summer (literally, it is summer-intended, see § 68) (cf. 48.13)

ṭ'ūwūgia'$^{u\varepsilon}$ it is hot (i. e., it is hot weather; but *ṭ'ūwū'$^{\varepsilon}$k'* it, some object, is hot [25.10]; 94.15)

we'^{e}gia-uda$^{\varepsilon}$ when it is daybreak 73.6; 126.13

4. *Temporal-Modal and Pronominal Elements* (§§ 59–67)

§ 59. INTRODUCTORY

Every Takelma verb except, so far as known, the defective copula *eīṭ'e$^{\varepsilon}$* I AM, has forms of six tense-modes—aorist, future, potential, inferential, present imperative, and future imperative. Of these, all but the aorist, which is built up on a derived aorist stem, are formed from the verb-stem. A special tense or mode sign, apart from the peculiar stem of the aorist, is found in none of the tense-modes except the inferential, which, in all the voices, is throughout characterized by a *-k'*-(*-g-*) following the objective, but preceding the subjective, pronominal elements. Each of the tense-modes except the potential, which uses the personal endings of the aorist, is, however, characterized by its own set of pronominal endings. It is for this very reason that it has seemed best to use the term tense-modes for the various modes and tenses, instead of attempting a necessarily artificial classification into tenses (aorist and future) and modes (indicative, potential, imperative, and inferential), the method of distinguishing the latter being fundamentally the same as that employed to form the former, i. e., the use of special pronominal schemes.

The purely temporal idea is only slightly developed in the verb. The aorist does duty for the preterite (including the narrative past), the present, and the immediate future, as in NOW I SHALL GO; while the future is employed to refer to future time distinctly set off from the present, as in I SHALL GO THIS EVENING, TO-MORROW. A similar distinction between the immediate and more remote future is made in the imperative. The present imperative expresses a command which, it is intended, is to pass into more or less immediate fulfillment, as in GO AWAY! while the command expressed by the future

imperative is not to be carried out until some stated or implied point of time definitely removed from the immediate present, as in COME TO-MORROW!, GIVE HER TO EAT (when she recovers). The uses of the potential and inferential will be best illustrated by examples given after the forms themselves have been tabulated. In a general way the potential implies the ability to do a thing, or the possibility of the occurrence of a certain action or condition (I CAN, COULD GO if I care, cared to), and thus is appropriately used in the apodosis of an unfulfilled or contrary-to-fact condition; it is also regularly employed in the expression of the negative imperative (prohibitive). The peculiar form of the potential (verb-stem with aorist pronoun endings) seems in a measure to reflect its modal signification, the identity of its stem with that of the future indicating apparently the lack of fulfillment of the action, while the aoristic pronominal elements may be interpreted as expressing the certainty of such fulfillment under the expressed or implied circumstances by the person referred to.

The inferential implies that the action expressed by the verb is not directly known or stated on the authority of the speaker, but is only inferred from the circumstances of the case or rests on the authority of one other than the speaker. Thus, if I say THE BEAR KILLED THE MAN, and wish to state the event as a mere matter of fact, the truth of which is directly known from my own or another's experience, the aorist form would normally be employed:

mena' (bear) *yap!a* (man) *t!omõk'wa* (it killed him)

If I wish, however, to imply that it is not definitely known from unmistakable evidence that the event really took place, or that it is inferred from certain facts (such as the finding of the man's corpse or the presence of a bear's footprints in the neighborhood of the house), or that the statement is not made on my own authority, the inferential would be employed:

mena' yap!a dõmk'wak' it seems that the bear killed the man; the bear must have, evidently has, killed the man

Inasmuch as mythical narration is necessarily told on hearsay, one would expect the regular use of the inferential in the myths; yet, in the great majority of cases, the aorist was employed, either because the constant use of the relatively uncommon inferential forms would have been felt as intrusive and laborious, or because the events related in the myths are to be looked upon as objectively certain.

The inferential is also regularly employed in expressing the negative future.

Not only do the pronominal elements vary for the different tense-modes, but they change also for the two main classes of intransitive verbs and for the transitive (subject and object), except that in the present imperative and inferential no such class-differences are discernible, though even in these the characteristic *-p'-* of Class II intransitives brings about a striking formal, if not strictly personal, difference. We thus have the following eleven pronominal schemes to deal with:

Aorist subject intransitive I.
Aorist subject intransitive II.
Aorist subject transitive.
Future subject intransitive I.
Future subject intransitive II.
Future subject transitive.
Inferential subject.
Present imperative subject.
Future imperative subject intransitive I and transitive.
Future imperative subject intransitive II.
Object transitive (and subject passive).

The transitive objects are alike for all tense-modes, except that the combination of the first person singular object and second person singular or plural subject (i. e., THOU or YE ME) always agrees with the corresponding subject form of intransitive II. Not all the personal forms in these schemes stand alone, there being a number of intercrossings between the schemes of the three classes of verbs. The total number of personal endings is furthermore greatly lessened by the absence of a dual and the lack of a distinct plural form for the third person. The third person subject is positively characterized by a distinct personal ending only in the aorist subject intransitive I, the future subject intransitive I, the future subject intransitive II, and the future subject transitive; as object, it is never characterized at all, except in so far as the third person object, when referring to human beings, is optionally indicated by a special suffix *-k'wa-* (*-gwa-*). In all other cases the third person is negatively characterized by the absence of a personal ending. The second singular subject of the present imperative is similarly negatively characterized by the absence of a personal ending, though the *-p'* of the present imperative intransitive II superficially contradicts this statement (see § 61).

The pronominal schemes, with illustrative paradigms, will now be taken up according to the verb-classes.

§ 60. INTRANSITIVES, CLASS I

This class embraces most of the intransitives of the language, particularly those of active significance (e. g., COME, GO, RUN, DANCE, PLAY, SING, DIE, SHOUT, JUMP, yet also such as BE, SLEEP), verbs in *-xa-*, indefinites in *-iau-*, and reciprocals. The tense-modes of such verbs have the following characteristic subjective personal endings:

	Aorist	Future	Inferential	Present imperative	Future imperative
Singular:					
First person	*-t'e$^{\varepsilon}$, -de$^{\varepsilon}$*	*-t'ee, -dee*	*-k'-a$^{\varepsilon}$*[1]		
Second person	*-(a')t'*	*-(a)da'$^{\varepsilon}$*	*-k' $^{\varepsilon}$ēt'*	——	*-(a')$^{\varepsilon}$k'*
Third person	*-$^{\varepsilon}$*	*-(a')$^{\varepsilon}$t'*	*-'k'*		
Plural:					
First person	*-i'k'*	*-(i)ga'm*	*-k'-ana'k'*	*-(a)ba'$^{\varepsilon}$*	
Second person	*-(a')t'p'*	*-(a')t'ba$^{\varepsilon}$*	*-k' $^{\varepsilon}$ēt'p'*	*-(a')np'*, *-'p'*	?

[1] It is possible that this suffix is really *-k'a$^{\varepsilon}$n; -n* after a catch is practically without sonority, and very easily missed by the ear. The first person singular and plural inferential endings are then both transitives in form (cf. *-a$^{\varepsilon}$n* and *-ana'k'* as first person singular and plural subject of transitives); the third person is without ending in both. The ending *-k'-a$^{\varepsilon}$n* is made particularly likely by the subordinate in *-k'-a'n-da$^{\varepsilon}$* (see § 70).

The imperative is necessarily lacking in the first person singular and third person. The first person plural in *-(a)ba'$^{\varepsilon}$* of the present imperative is used as a hortatory: *yanaba'$^{\varepsilon}$* LET US GO! 158.11; (cf. 168.11). This *-(a)ba'$^{\varepsilon}$* is not infrequently followed by emphasizing particles: *-ni'* (e. g., *yubā'$^{a\varepsilon}$ni'* LET US BE! [cf. 158.8]); *-hi* (e. g., *ye$^{\varepsilon}$ba'$^{\varepsilon}$hi* LET US RETURN! 63.1; see § 114, 2), or *-ha'n* (e. g., *ya'naba$^{\varepsilon}$ha'n* LET US GO 64.1), the last of these being clearly identical with the nominal plural element *-han* (see § 99); *-nihan* is also found (*ya'nabā$^{a\varepsilon}$niha'n* LET US ALL GO, PRAY! [cf. 150.24; 152.6]). No true future hortatory and second person plural imperative seem to exist; for the latter, the ordinary indicative form in *-t'ba$^{\varepsilon}$* (*-daba$^{\varepsilon}$* in the other classes) was always given. The connective *-a-* is used with most of the consonantal endings, as indicated in the table, when the preceding part of the word ends in a consonant, otherwise the ending is directly attached; in the reciprocal *-t'p'*, *-$^{\varepsilon}$t'*, and *-t'ba$^{\varepsilon}$* are directly added to the suffix *-an-*. Before the only vocalic ending, *-i'k'*, a glide *-y-* is introduced if the preceding sound is a vowel (e. g., *al-yowoyi'k'* WE LOOK). In the first person plural of the future *-iga'm* (-aorist *-ig-* + *-a'm;* cf. *-da'm* in possessive

pronouns, §§ 91–3) is used after consonants, *-ga'm* after vowels. The first form of the second person plural imperative (*-a'np'*) is used to follow most consonants (*-'np'* to follow a "constant" *-a-* of the stem), *-'p'* being found only after vowels and probably *m* and *n* (e. g., *yu'p'* BE YE!; *yana'p'* GO YE!).

In regard to the etymology of the endings, it is clear that the second person plural aorist is derived from the corresponding singular form by the addition of a characteristic *-p'* (cf. the imperative), that the second persons of the future are differentiated from the aorist forms by an added *-a*^{e}, and that the first person singular future is identical with the corresponding form in the aorist, except for the lack of a catch. The second persons of the inferential are periphrastic forms, consisting of the third personal form in *-k'* (mode-sign, not personal ending) plus *eīt'* THOU ART, *eīt'p'* YE ARE.

As paradigmatic examples are chosen a stem ending in a vowel (aorist *yowo-* BE), one ending in a consonant (aorist *baxam-* COME), a reciprocal (aorist *sā^{a}nsan-san-* FIGHT WITH ONE ANOTHER), and an indefinite in *-iau-* (aorist *t'ūwū-g-iau-* BE HOT).

AORIST

Singular:				
First person . .	*yowo't'e*^{e} I run	*baxam̄t'e*^{e} I come		
Second person . .	*yowo't'*	*baxama't'*		
Third person . .	*yowo'*^{e}	*baxa'*^{e}*m*	*sāansa'nsa*^{e}*n* they fight	*t'ūwūgia'u*^{e} it is hot
Plural:				
First person . .	*yowoyi'k'*	*baxami'k'*	*sāansa'nsini'k'*	
Second person . .	*yowo't'p'*	*baxama't'p'*	*sāansa'nsant'p'*	

FUTURE

Singular:				
First person . .	*yu't'e*^{e}	*baxma't'e*^{e}		
Second person . .	*yuda'*^{e}	*baxmada'*^{e}		
Third person . .	*yu'*^{e}*t'*	*baxma'*^{e}*t'*	*sana'xan*^{e}*t'*	*t'ūugia'u*^{e}*t'*
Plural:				
First person . .	*yuga'm*	*baxmaga'm*	*sana'xinigam*	
Second person . .	*yu't'ba*^{e}	*baxma't'ba*^{e}	*sana'xant'ba*^{e}	

POTENTIAL

Singular:				
First person . .	*yu't'e*^{e}	*baxma't'e*^{e}		
Second person . .	*yu't'*	*baxma't'*		
Third person . .	*yu'*^{e}	*baxma'*^{e}	*sana'xa*^{e}*n*	*t'ūugia'u*^{e}
Plural:				
First person . .	*yuwi'k'*	*baxmi'k'*	*sana'xinik'*	
Second person . .	*yu't'p'*	*baxma't'p'*	*sana'xant'p'*	

INFERENTIAL

Singular:				
First person	*yu'k'a^{ɛ}*	*baxma'k'a^{ɛ}*		
Second person	*yu'k!eĭt'* [1]	*baxma'k!eĭt'*		
Third person	*yu'k'*	*baxma'k'*	*sana'xank'*	*t'ūugiau'k'*
Plural:				
First person	*yu'k'ana'k'*	*baxma'k'ana'k'*	*sana'xank'ana'k'*	
Second person	*yu'k!eĭt'p'*	*baxma'k!eĭt'p'*	*sana'xank!eĭt'p'*	

[1] *-k'+^{ɛ}=k!* See § 12.

PRESENT IMPERATIVE

Singular:			
Second person	*yu'*	*baxma'*	
Plural:			
First person	*yuba'^{ɛ}*	*baxmaba'^{ɛ}*	*sana'xiniba^{ɛ}* [1]
Second person	*yu'p'*	*baxma'np'*	(?)*sana'xananp'*

[1] The *-i-* of *-iba^{ɛ}* evidently corresponds to the *-i-* in the first person plural aorist *-ik'*, future *-igam*, but appears, so far as known, only in the reciprocal, and, of course, in such cases as require connective *-i-* instead of *-a-* (see below, § 64): *ha^{ɛ}w-ĭ-k!emniba'^{ɛ}* LET US SWEAT, with *-ĭ-* because of instrumental *ĭ-*.

FUTURE IMPERATIVE

Singular:				
Second person	*yu'^{ɛ}k'*	*baxma'^{ɛ}k'*		

A few intransitives of this class add the consonantal pronominal endings directly to the final semi-vowel (*-y-*) of the stem, instead of employing the connective vowel *-a-*. Such are:

eĭt' [1] thou art 108.2, *eĭt'p'* ye are 14.10 (contrast *yeweya't'* thou returnest [58.13], but *yeweĭt'e^{ɛ}* I return [188.4] like *eĭt'e^{ɛ}* I am 198.2)

nagaĭt' thou sayest 56.5, *nagaĭt'p'* ye say 170.4 (contrast *t'agaya't'* thou criest, but *t'agaĭt'e^{ɛ}* I cry [180.5] like *nagaĭt'e^{ɛ}* I say 180.1)

To this somewhat irregular group of verbs belongs probably also *lō^{u}-* PLAY, though, not ending in a semi-vowel in either the verb or aorist stem, it shows no forms directly comparable to those just given; its third person aorist, however, shows a rising accent before the catch: *lō^{u}l^{ɛ}* [2] 70.4 (not **lō'^{u}l^{ɛ}*), a phenomenon that seems connected (see below, § 65) with the lack of a connecting vowel before the personal endings.

A few stray verbs, otherwise following the normal scheme of intransitive Class I endings, seem to lack a catch in the third person aorist:

[1] This verb is defective, having only the three forms given above, the first person plural *e^{ɛ}bi'k'* 180.13, and the (cf. class II) indefinite *e^{ɛ}bia'us* 192.7, the latter two with loss of *i* and intrusive *-b-*. The third person and the non-aorist forms are supplied by *yo-* BE.

[2] $\simeq l^{ɛ}$ appears also in certain usitatives: *hiwiūl^{ɛ}* HE USED TO RUN, *sgelēl^{ɛ}* HE KEPT SHOUTING, in which the rising accent is probably radical (see § 43, 4); these forms, furthermore, have lost a *w*, § 18 (cf. *hiwiliūt'e^{ɛ}* I RUN, *sgeleūt'e^{ɛ}* I SHOUT).

lop!o't'[1] it rains 90.1, 2 (yet *lop!oda't'* you are raining 198.9; *lop'da'ᵉt'* it will rain; *lop'da'x* to rain, § 74, 1)
hãx it burns 98.1 (yet *haxa'ᵉt'* it will burn)

Several intransitive Class I usitatives seem to lack the catch of the third person aorist also:

ginīnk' he always went to 46.11 (from *gini'ᵉk'* he went to)
witc!īsma he keeps moving (from *witc!i'ᵉm* he moves 148.12)
yewèo'k' he is wont to return 47.4; 116.2 (yet *yewèoga't'* you are wont to return)

No explanation can be given of this irregularity.

The inferential endings, as has been already remarked, are identical for all classes of verbs, so that the following applies to Class II intransitives and to transitives as well as to Class I intransitives. The mode-sign *-k'* is added directly to the final vowel or consonant of the verb-stem (or stem with its added derivative and pronominal object suffixes) without connecting *a*. All combinations of consonants are here allowed that are at all possible as syllabically final clusters (see § 16); indeed some of the final consonant clusters, as *-sk'*, *-p'k'*, *-np'k'*, *-lp'k'*, hardly occur, if at all, outside the inferential. If the resulting consonant combination would be phonetically impossible an inorganic *a* is introduced between the two consonants that precede the inferential *-k'*; secondary diphthongs with raised accent may thus arise:

k!ema'nk' he made it (verb-stem *k!emn-*)
bila'uk' he jumped 160.17 (verb-stem *bilw-*)

Double diphthongs are often allowed to stand unaltered before *-k'* (e.g., *oīnk'* HE GAVE THEM; also imperative *oīn* GIVE THEM!); sometimes doublets, with double diphthong or with inorganic *a*, are found (e. g., *ts!aīmk'* or *ts!aya'mk'* HE HID IT; also passive participle *ts!aīmhak'ʷ* HIDDEN, but *ts!aya'm* HIDE IT! *ts!eya'mxi* HIDE ME! *ts!aya'mxamk'* HE HID US [158.7]). With a final *-g-* or *-gw-* the inferential *-k'* unites to form *-k'* or *-k'ʷ*, but with lengthening of the preceding vowel; *-k!-+-k'* becomes *-'ᵉk'*. Examples are:

heᵉnãk'ʷ (=*-a'gw-k'*) he consumed them (cf. 48.10); but *heᵉna'k'ʷ* consume them!
wa-yanãk'ʷ (=*yana'-gw-k'*) he ran after them 98. 10; but *wa-yana'k'ʷ* run after them!

[1] This form can not possibly have been misheard for **lop!o'ᵉt'*, the form to be expected, as the subordinate is *lop!ōt'aᵉ*, not **lop!ō'udaᵉ*, which would be required by a **lop!o'ᵉt'* (see § 70).

yõ^{u}k'^{w} (=*yogw-k'*) she married him 192.16
he^{ɛ}-ī-le'm^{ɛ}k' (=*lemk!-k'*) he destroyed them (146.20); 154.11; also imperative (=**lemk!*)

§ 61. INTRANSITIVES, CLASS II

Most verbs of Class II intransitives, unlike those that are most typical of Class I, are derived from transitives, the majority of examples falling under the heads of non-agentives in *-x-*, reflexives in *-gwi-*, positionals in *-ī^{i}-*, and verbs with intransitivizing *-p'-* either in all their tense-modes or in all but the aorist (see § 42, 1). Besides these main groups there are a straggling number of not easily classified verbs that also show the peculiarities of the class; such are:

sene'sant'e^{ɛ} I whoop (110.20; 180.15)
wīt'e^{ɛ} I go about (90.1; 92.29; 122.23)
ligīnt'e^{ɛ} I rest (48.11; 79.2, 4; 102.1)
hü^{ü}li'nt'e^{ɛ} I am tired (48.4, 11; 102.1, 8; 120.11)

In a rough way the main characteristic of Class II intransitives, as far as signification is concerned, is that they denote conditions and processes, while Class I intransitives are in great part verbs of action. Following is the scheme of subjective pronominal endings characteristic of Class II:

	Aorist	Future	Inferential	Present imperative	Future imperative
Singular:					
First person	*-t'e^{ɛ}, -de^{ɛ}*	*t'ee, -dee*	*(-p')-ga^{ɛ}*		
Second person	*-t'am, -dam*	*-t'a^{ɛ}, -da^{ɛ}*	*(-p')-k' ^{ɛ}eēt'*	*(-p')*	*(-p')-ga^{ɛ}m*
Third person	*-t'*	*-t'ā^{a}, -dāa*	*(-p')-k'*		
Plural:					
First person	*(-p')-ik'*	*(-p')-igam*	*(-p')-g-ana'k'*	*(-p')-aba^{ɛ}*	
Second person	*-t'ap', -dap'*	*-t'aba^{ɛ}, -daba^{ɛ}*	*(-p')-k' ^{ɛ}eīt'p'*	*(-p')-anp'*	

In comparing these endings with those of Class I intransitives, it is seen that the characteristic peculiarities of Class II intransitives are: the *-am* of the second person singular aorist and future imperative (*-t'am*[=*-t'* + *-am*], *-ga^{ɛ}m* [? =*-^{ɛ}k'* + *-am*]); the *-a-* between the *-t'-* and the *-p'-* (*-b-*) in the second person plural aorist and future; the lack of a catch in the third person aorist; the ending *-t'ā^{a}* of the third person future; and the presence of a *-p'-* (*-b-*) in the first person plural aorist and future and in the inferential, present imperative, and future imperative forms. The last feature is, however, absent in the non-agentive *-x-* verbs and in the future of reflexives. The labial in

the first person plural of the aorist and future is evidently connected with the *-b-* of *e^{e}bi'k'* WE ARE (see § 60, fourth footnote); the parallelism is made complete by the fact that impersonal forms in *-iau-* derived from Class II intransitives (except non-agentives) show a *-p'-* before the suffix, analogously to *e^{e}bia'$^{u\varepsilon}$*:

sene'sanp'ia$^{u\varepsilon}$ there is whooping, *se'nsanp'ia$^{u\varepsilon}$t'* there will be whooping

In the third person of the aorist, positionals in *-ī^{i}-*, non-agentives, and verbs in *-p'-* and other consonants (except *n* and probably *l*, *m*) lack a positive ending, while reflexives and most of the miscellaneous verbs (ending in a vowel or *n*, *l*, and *m*) show a final *-t'*. There is every reason to believe that the absence of a *-t'* in the former group of forms is due to phonetic conditions that brought about its loss (see § 18).

As examples of verbs of this class will serve a non-agentive (aorist *ha-u-hana$^{\varepsilon}$s-* STOP), a reflexive (aorist *ī-lets!ek'wi-* TOUCH ONE'S SELF), a positional (aorist *s·as·inī^{i}-* STAND), and one of the miscellaneous verbs (*wī^{i}-* GO ABOUT).

AORIST.

Singular:				
First person .	*hana'$^{\varepsilon}$sde$^{\varepsilon}$* I stop	*lets!ē'k'wide$^{\varepsilon}$* I touch myself	*s·as·inī't'e$^{\varepsilon}$* I stand	*wī't'e$^{\varepsilon}$* I go about
Second person	*hana'$^{\varepsilon}$sdam*	*lets!ē'k'widam*	*s·as·inī't'am*	*wī't'am*
Third person	*hana'$^{\varepsilon}$s*	*lets!ē'k'wit'*	*s·as·inī*	*wī't'*
Plural:				
First person .	*hana'$^{\varepsilon}$sik'*	*lets!ē'k'wibik'*	*s·as·inīp'ik'*	*wīp'ik'*
Second person	*hana'$^{\varepsilon}$sdap'*	*lets!ē'k'widap'*	*s·as·inī't'ap'*	*wī't'ap'*

FUTURE

Singular:				
First person .	*ha'n$^{\varepsilon}$sde$^{\varepsilon}$*	*lesgi'k'wide$^{\varepsilon}$*	*s·a's·ant'e$^{\varepsilon}$*	*wī't'e$^{\varepsilon}$*
Second person	*ha'n$^{\varepsilon}$sda$^{\varepsilon}$*	*lesgi'k'wida$^{\varepsilon}$*	*s·a's·ant'a$^{\varepsilon}$*	*wī't'a$^{\varepsilon}$*
Third person .	*ha'n$^{\varepsilon}$sdā^{a}*	*lesgi'k'widā^{a}*	*s·a's·ant'ā^{a}*	*wī't'ā^{a}*
Plural:				
First person .	*ha'n$^{\varepsilon}$sigam*	*lesgi'k'wigam*	*s·a's·anp'igam*	*wīp'igam*
Second person	*ha'n$^{\varepsilon}$sdaba$^{\varepsilon}$*	*lesgi'k'widaba$^{\varepsilon}$*	*s·a's·ant'aba$^{\varepsilon}$*	*wī't'aba$^{\varepsilon}$*

POTENTIAL.

Singular:				
First person .	*ha'n$^{\varepsilon}$sde$^{\varepsilon}$*	*lesgi'k'wide$^{\varepsilon}$*	*s·a's·ant'e$^{\varepsilon}$*	*wī't'e$^{\varepsilon}$*
Second person	*ha'n$^{\varepsilon}$sdam*	*lesgi'k'widam*	*s·a's·ant'am*	*wī't'am*
Third person .	*ha'n$^{\varepsilon}$s*	*lesgi'k'wit'*	*s·a's·ant'* (?)	*wī't'*
Plural:				
First person .	*ha'n$^{\varepsilon}$sik'*	*lesgi'k'wibik'*	*s·a's·anp'ik'*	*wīp'ik'*
Second person	*ha'n$^{\varepsilon}$sdap'*	*lesgi'k'widap'*	*s·a's·ant'ap'*	*wī't'ap'*

INFERENTIAL

Singular:				
First person .	*ha'nᵉsgaᵉ*	*lesgi'k'wip'gaᵉ*	*s·a's·anp'gaᵉ*	*wīp'gaᵉ*
Second person	*ha'nᵉskleīt'*	*lesgi'k'wip'kleīt'*	*s·a's·anp'kleīt'*	*wīp'kleīt'*
Third person .	*ha'nᵉsk'*	*lesgi'k'wip'k'*	*s·a's·anp'k'*	*wīp'k'*
Plural:				
First person .	*ha'nᵉsgana'k'*	*lesgi'k'wip'gana'k'*	*s·a's·anp'gana'k'*	*wīp'gana'k'*
Second person	*ha'nᵉskleīt'p'*	*lesgi'k'wip'kleīt'p'*	*s·a's·anp'kleīt'p'*	*wīp'kleīt'p'*

PRESENT IMPERATIVE

Singular:				
Second person	*ha'nᵉs*	*lesgi'k'wīᵘp'*	*s·a's·anp'*	*wīp'*
Plural:				
First person .	*ha'nᵉsabaᵉ*	*lesgi'k'wīᵘp'abaᵉ*	*s·a's·anp'abaᵉ*	*wīp'abaᵉ*
Second person	*ha'nᵉsanp'*	*lesgi'k'wīᵘp'anp'*	*s·a's·anp'anp'*	*wīp'anp'*

FUTURE IMPERATIVE

Singular:				
Second person	*ha'nᵉsgaᵉm*	*lesgi'k'wīᵘp'gaᵉm*	*s·a's·anp'gaᵉm*	*wīp'gaᵉm*

Those verbs of this class that are characterized, either throughout their forms or in all non-aorist forms, by a suffixed *p'* have this element coalesce with the *-p'* of the first person plural, inferential, and imperative, but with lengthening of an immediately preceding vowel. In the imperative this lengthened vowel seems to take on a falling accent:

p!alā'ᵃp' tell a myth! (cf. *p!ala'p'deᵉ* I shall tell a myth, with inorganic second *a*)

sanā'ᵃp' fight! (cf. *sana'p'deᵉ* I shall fight, with radical second *a*)

The verb *wog-* ARRIVE is peculiar in that the aorist is formed after the manner of Class II verbs (*wōk'* HE ARRIVES 47.15; *wōk'dam* YOU ARRIVE), while the non-aorist forms belong to Class I (e. g., *woga'ᵉt'* HE WILL ARRIVE). It is further noteworthy that many, perhaps most, Class II intransitives form their usitative and frequentative forms according to Class I. Examples, showing the third person aorist catch, are:

s·ū'ᵉalhaᵉ they always dwell 112.2 (from *s·uᵉwilī* 21.1; but first person plural *s·ū'ᵉalhibik'*); contrast Class II *s·as·a'nhap'* he keeps standing (from *s·as·inī* 34.1)

wogowa'ᵉk' they keep arriving 112.2 (from *wōk'*)

s·o'wōᵘs·aᵘᵉ they keep jumping (112.5,10) (from *s·owō'ᵘᵉk'ap'* 48.15)

Several non-agentives in *-x-* drop the *-x-* and become Class I intransitives in the frequentative:

p!a-i-t'gwilī'it'gwal^{ɛ} (water) keeps dripping down (cf. *p!a-i-t'gwilī'^{iɛ}x* it drips down 58.1)

xā^{a}-sgot!o'sga^{ɛ}t' it breaks to pieces 62.1 (cf. *xā^{a}-sgō'^{u}s=-sgō^{u}d-x* it breaks [61.13])

xā^{a}-sgō'^{uɛ}t'sgada^{ɛ}t' it will break to pieces (cf. *xā^{a}-sgō'^{uɛ}sda* it will break [148.8])

TRANSITIVES, CLASS III (§§ 62–66)

§ 62. General Remarks

The subject pronominal elements of the transitive verb combine with the objective elements to form rather closely welded compound endings, yet hardly ever so that the two can not separately be recognized as such; the order of composition is in every case pronominal object + subject. It is only in the combinations THOU or YE —— ME that such composition does not take place; in these the first person singular object is, properly speaking, not expressed at all, except in so far as the stem undergoes palatalization if possible (see § 31, 1), while the second person subject assumes the form in which it is found in Class II of intransitive verbs. The pronominal objects are decidedly a more integral part of the verb-form than the subjects, for not only do they precede these, but in passives, periphrastic futures, nouns of agency, and infinitives they are found unaccompanied by them. For example:

dõmxbina^{ɛ} you will be killed (178.15)
dõmxbigulu'k'^{w} he will kill you
dõmxbi^{ɛ}s one who kills you
dõmxbiya to kill you

are analogous, as far as the incorporated pronominal object (*-bi-*) is concerned, to:

dõmxbink' he will kill you; *t!omõxbi^{ɛ}n* I kill you

The pronominal objects are found in all the tense-modes, as far as the meaning of these permits, and are entirely distinct from all the subjective elements, except that the ending of the second person plural coincides with one form of the second person singular present imperative of the intransitive, *-anp'*. These elements are:

Singular: First person, *-xi* (with third subjective); second person, *-bi;* third person, ——; third person (human), *-k'wa*. Plural: First person, *-am;* second person, *-anp'* (*-anb-*).

It does not seem that *-k'wa-*, which is optionally used as the third personal object when reference is distinctly had to a human being (or to a mythical animal conceived of as a human being), can be combined with other than a third personal subject (at least no other examples have been found); nor can it be used as an indirect object if the verb already contains among its prefixes an incorporated indirect object. These restrictions on the use of *-k'wa-* enable us effectually to distinguish it from the indirect reflexive *-k'wa-* which has already been discussed, this element normally requiring an incorporated object prefixed to the verb. Examples of the objective *-k'wa-* are:

t!omõk'wa[1] it killed him 15.16; 28.11
he$^{e\varepsilon}$-īūk'wa he went away from him
hãxank'wa he burnt him 27.16
sā^{a}nsa'nk'wa he fought with him 28.10
nagaīk'wa he said to him 152.3 (with very puzzling intransitive *-i-;* contrast *naga'* he said to him)
wēt'gigwa she took (it) away from him (49.6)
lãk'wak' (inferential) he gave him to eat

In several respects this *-k'wa* differs fundamentally from the other object suffixes. It allows no connective *-x-* to stand before it (see § 64); the indirective *-d-* of *-a'ld-* (see § 48) drops out before it:

gayawa'lk'wa he ate him; cf. *gayawa'lsbi* he ate you (26.8)

and, differing in this respect from the suffixless third person object, it allows no instrumental *i* to stand before it (see § 64):

ī-t!ana'hagwa he held him (25.10); cf. *ī-t!ana'hi* he held it 27.4
dak'-da-hãlk'wa he answered him 180.18; cf. *dak'-da-hā^{a}li'$^{\varepsilon}$n* I answered him (146.14)

It is thus evident that forms with suffixed *-k'wa* approximate intransitives in form (cf. *nagaīk'wa* above). With a stem-final *g, gw* the suffix unites to form *-k'wa,* the preceding vowel being lengthened and receiving a rising accent; with a stem-final *k!* it unites to form *-$^{\varepsilon}$k'wa,* the preceding vowel being lengthened with falling accent. Examples are:

t!ayãk'wa he found him 71.14; cf. *t!aya'k'* he found it 43.4; 134.17
malãk'wa he told him 22.8; (72.14); cf. *malagana'nhi* he told it to him (see § 50) 30.15

[1] The final consonant of the aoristic stem of Type 8 verbs is regularly lost before *-k'wa.*

da-k!os·õ^{u}k'wa they bit him 74.5 (aorist stem *-k!os·og-*)
he$^{e\varepsilon}$-īleme'$^{e\varepsilon}$k'wa he destroyed them (50.2); cf. *he$^{e\varepsilon}$-īleme'k!i$^{\varepsilon}$n* I destroyed them (110.2)
mül'ü$^{ü\varepsilon}$k'wa he swallowed him 72.16; cf. *mülü'k!a$^{\varepsilon}$n* I swallowed him (73.1)

Verbs that have a suffixed comitative *-(a)gwa-* show, in combination with the objective *-k'wa-*, a probably dissimilated suffix *-gik'wa* (*-gigwa*), the connecting *a* preceding this compound suffix being of course umlauted to *i*:

xebeyigi'k'wa he hurt him (cf. *xebeyagwa'$^{\varepsilon}$n* I hurt him [136.23])
ūyū'$^{i\varepsilon}$sgigwa he laughed at him 27.5 (cf. *ūyū'$^{\varepsilon}$sgwa$^{\varepsilon}$n* I laugh at him [71.7])

It is rather interesting to observe how the objective *-k'wa-* may serve to remove some of the ambiguities that are apt to arise in Takelma in the use of the third person. HE GAVE IT TO HIM is expressed in the inferential by the forms *o'k'ik'* and *o'k'igwak'*, the latter of which necessarily refers to a human indirect object. If a noun or independent pronoun be put before these apparently synonymous forms, sentences are framed of quite divergent signification. In the first sentence (noun + *o'k'ik'*) the prefixed noun would naturally be taken as the object (direct or indirect) of the verb (e. g., *ne'k'di o'k'ik'*, HE WHO-GAVE IT? [=TO WHOM DID HE GIVE IT?]); in the second (noun + *o'k'igwak'*), as subject, a doubly expressed object being inadmissible (e. g., *ne'k'di o'k'igwak'* WHO GAVE IT TO HIM?). TO WHOM DID HE BRING IT? with incorporated object *ne'k'di* reads *ne'k'di me$^{\varepsilon}$-wāk'* literally, HE-WHO-HITHER-BROUGHT-IT? WHO BROUGHT IT TO HIM? with subject *ne'k'di* reads (as inferential form) *ne'k'di wagawo'k'wak'* (*-o-* unexplained). HE FOUND THE ANTS is expressed by *t!ibis·ī^{i} t!aya'k'*, but THE ANTS FOUND HIM by *t!ibis·ī^{i} t!ayāk'wa*. The usage illustrated may be stated thus: whenever the third personal object refers to a human being and the subject is expressed as a noun, suffixed *-k'wa* must be used to indicate the object; if it is not used, the expressed noun will most naturally be construed as the object of the verb. An effective means is thus present in Takelma for the distinction of a personal subject and object.

§ 62

§ 63. Transitive Subject Pronouns

The various tense-modal schemes of subject pronouns in the transitive verb are as follows:

	Aorist	Future	Inferential	Present imperative	Future imperative
Singular:					
First person	-(a')^{e}n	-(a')n	-k'-a^{e}		
Second person	-(a')t' / -dam (1st sing. obj.)	-(a)da^{e} / -da^{e} (1st sing. obj.)	-k' ^{e}ēit'		-(a')^{e}k' / -ga^{e}m (1st sing. obj.)
Third person		-(a')nk'	-k'		
Plural:					
First person	-(a)nak'	-(a)naga'm	k'-anak'	-(a) ba'^{e}	
Second person	-(a')t'p' / -dap' (1st sing. obj.)	-(a')t'ba^{e} / -$daba^{e}$ (1st sing. obj.)	-k' ^{e}ēit'p'	-p' / -(a)np'	

Setting aside the peculiar second personal subject first personal singular object terminations, it will be observed that the subjective forms of the transitive are identical with those of the intransitive (Class I) except in the first person singular and plural aorist and future, and in the third person aorist and future. The loss in the future of the catch of the first person singular aorist (*-t'^{e}: t'^{e}* = *-^{e}n: -n*) and the addition in the future of *-am* to the first person plural aorist (*-ik': -igam* = *-nak': -nagam*) are quite parallel phenomena. It will be observed also that the first person plural, probably also singular, aorist of the transitive, is in form identical, except for the mode-sign *-k'-*, with the corresponding form of the inferential, so that one is justified in suspecting this tense-mode to consist, morphologically speaking, of transitive forms with third personal object (see § 60, first footnote).

The forms of *dō^{u}m-* (aorist *t!omom-*) KILL will show the method of combining subjective and objective pronominal elements.

AORIST

Subjective	Objective				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per.		*t!omõxbi^{e}n*	*t!omoma'^{e}n*		*t!omõxanba^{e}n*
2d per.	*t!ümũxdam*		*t!omoma't'*	*t!omõximit'*	
3d per.	*t!ümũxi*	*t!omõxbi*	*t!omõm*	*t!omõxam*	*t!omõxanp'* [1]
Plural:					
1st per.		*t!omõxbinak'*	*t!omomana'k'*		*t!omõxanbana'k'*
2d per.	*t!ümũxdap'*		*t!omoma't'p'*	*t!omõximit'p'*	

[1] Not to be confused with *t!omõxant'p'* YE ARE KILLING EACH OTHER!

FUTURE

Subjective	Objective				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per.		*dõmxbin*	*dõᵘma'n*		*dõmxanban*
2d per.	*dũmxdaᵉ*		*dõᵘmada'ᵉ*	*dõmximidaᵉ*	
3d per.	*dũmxink'*	*dõmxbink'*	*dõᵘma'nk'*	*dõmxamank'*	*dõmxanbank'*
Plural:					
1st per.		*dõmxbinagam*	*dõᵘmanaga'm*		*dõmxambanagam*
2d per.	*dũmxdabaᵉ*		*dõᵘma't'baᵉ*	*dõmximit'baᵉ* [1]	
	PRESENT IMPERATIVE				
Singular:					
2d per.	*dümxi*		*dõᵘm*	*dõmxam*	
Plural:					
1st per.			*dõᵘmaba'ᵉ*		
2d per.	*dümxip'*		*dõᵘmp'* (*al-xī'-k!anp'* see him!)	*dõmxamp'* [1]	
	FUTURE IMPERATIVE				
Singular:					
2d per.	*dũmxgaᵉm*		*dõᵘma'ᵉk'*	? [2]	

[1] These forms were not actually obtained, but can hardly be considered as doubtful.
[2] Probably expressed by simple future *dõmximidaᵉ*.

It is not necessary to give the transitive potential and inferential forms, as the former can be easily constructed by substituting in the future forms the aorist endings for those of the future:

dũmxi he would kill me
dõᵘma'ᵉn I should, could kill him
dõᵘm he would, could kill him

The inferential forms can be built up from the corresponding future forms by substituting for the subject endings of the latter those given in the table for the inferential mode:

dũmxik' he killed me
dõmxamk!eīt' you killed us
dõmk'aᵉ I killed him
dõmxanp'ganak' we killed you

The only point to which attention need be called in the aorist and future forms is the use of a connecting vowel *-i-* instead of *-a-* when the first personal plural object (*-am-*) is combined with a second singular or plural subject (*-it'*, *-it'p'*, *-idaᵉ*, *-it'baᵉ*); this *-i-* naturally

carries the umlaut of *-am-* to *-im-* with it, but *-am-* reappears when *-i-* drops out, cf. inferential *dõmxàmk!eĭt'*. With the *-i-* of these forms compare the *-i-* of the first person plural intransitives *-ik'*, *-iga'm*, *-iba'* (§ 60 and § 60, second footnote).

§ 64. Connecting *-x-* and *-i-*

It will have been observed that in all forms but those provided with a third personal object the endings are not directly added to the stem, but are joined to it by a connecting consonant *-x-* (amalgamating with preceding *-t-* to *-s'-*). This element we have seen to be identical with the *-x-* (*-s-*) of reciprocal forms; and there is a possibility of its being related to the *-xa-* of active intransitive verbs, hardly, however, to the non-agentive *-x-*. Though it appears as a purely formal, apparently meaningless element, its original function must have been to indicate the objective relation in which the immediately following pronominal suffix stands to the verb. From this point of view it is absent in a third personal object form simply because there is no expressed pronominal element for it to objectivize, as it were. The final aoristic consonant of Type 8 verbs regularly disappears before the connecting *-x-*, so that its retention becomes a probably secondary mark of a third personal pronominal object. The fact that the third personal objective element *-k'wa-* (*-gwa-*) does not tolerate a preceding connective *-x-* puts it in a class by itself, affiliating it to some extent with the derivational suffixes of the verb.

There are, comparatively speaking, few transitive stems ending in a vowel, so that it does not often happen that the subjective personal endings, the third personal object being unexpressed, are directly attached to the verb or aorist stem, as in:

naga'ᵉn I say to him 72.9, cf. *naga'* he said to him 92.24
sebe'n I shall roast it (44.6); future imperative *odo'ᵉk'* hunt for him! (116.7)

Ordinarily forms involving the third personal object require a connecting vowel between the stem and the pronominal suffix. Not all verbs, however, show the purely non-significant *-a-* of, e. g., *t!omoma'ᵉn*, but have a to a large extent probably functional *-i-*. This *-i-* occurs first of all in all third personal object forms of verbs that have an instrumental prefix:

ts!ayaga'ᵉn I shoot him (192.10), but *wa-ts!ayagi'ᵉn* I shoot (him) with it
ī-lats!agi'ĭt' you touched it

The greater number of cases will probably be found to come under this head, so that the *-i-* may be conveniently termed INSTRUMENTAL *-i-*. Not all forms with *-i-*, by any means, can be explained, however, as instrumental in force. A great many verbs, many of them characterized by the directive prefix *al-* (see § 36, 15), require an *-i-* as their regular connecting vowel:

lagagi'ᵉn I gave him to eat (30.12)
lāᵃliwi'ᵉn I call him by name (116.17)
lōᵘginini'ᵉn I trap them for him (and most other FOR-indirectives in *-anan-*)

Examples of *-i-*verbs with indirect object are:

ogoyi'ᵉn I give it to him 180.11 (contrast *oyona'ᵉn* I gave it [180.20])
wāᵃgiwi'ᵉn I brought it to him (176.17) (contrast *wāᵃga'ᵉn* I brought it [162.13])

A number of verbs have *-a-* in the aorist, but *-i-* in all other tense-modes:

yīⁱmiya'ᵉn I lend it to him, but *yimi'hin* I shall lend it to him
naga'ᵉn I said to him (second *-a-* part of stem) 72.9, but *nāᵃgi'n* I shall say to him; *nāᵃgi'ᵉk'* say to him! (future) 196.20; *nāk'ik'* he said to him (inferential) 94.16; 170.9; 172.12

The general significance of *-i-* seems not unlike that of the prefixed directive *al-*, though the application of the former element is very much wider; i. e., it refers to action directed toward some person or object distinctly outside the sphere of the subject. Hence the *-i-* is never found used together with the indirect reflexive *-k'wa-*, even though this suffix is accompanied by an instrumental prefix:

xāᵃ-p!īⁱ-nō'ᵘk'waᵉn I warm my own back (188.20)

In a few cases the applicability of the action of the verb can be shifted from the sphere of the subject to that of another person or thing by a mere change of the connective *-a-* to *-i-*, without the added use of prefix or suffix:

xāᵃ-lā'ᵃt!an I shall put it about my waist, but *xāᵃ-lā'ᵃt!in* I shall put it about his waist

In the form of the third personal subject with third personal object of the aorist, the imperative with third personal object, and the inferential with third personal object, the *-i-* generally appears as a suffixed *-hi-* (*-'i-*), incapable of causing umlaut:

malagana'nhi he told him 30.15, but *malagini'ᵉn* I told him (172.1)
wa-t!omõmhi he killed him with it

ī-k!ū^{u}manana'nhi he fixed it for him
ī-k!ūmana'nhi fix it for him!
ī-k!ūmana'nhik' he fixed it for him (infer.), but *ī-k!ūmininini'nk'* he will fix it for him

It should be noted, however, that many verbs with characteristic *-i-* either may or regularly do leave out the final *-'i*:

alxī'^{i}lk' he saw him 124.6, 8 (cf. *al-xī'^{i}gi^{ɛ}n* I saw him, 188.11)[1]
ī-lats!a'k' he touched him (cf. *ī-lats!agi'^{ɛ}n* I touched him)
ba^{ɛ}-ī-ye^{e}wa'n revive him! (15.2) (cf. *ba^{ɛ}-ī-ywe^{e}ni'^{ɛ}n* I revived him)
he^{ɛ}-ī-lele'^{ɛ}k' he let him go (13.6) (cf. *he^{ɛ}-ī-le'lek!i^{ɛ}n* I let him go [50.4])
he^{ɛ}-ī-le'l'^{ɛ}k' let him go! 182.15 (cf. *he^{ɛ}-ī-le'lk!in* I shall let him go)
ba-i-di-t'ga'^{ɛ}st'gā^{a}s stick out your anus! 164.19; 166.6 (cf. *ba-i-di-t'gats!a't'gisi^{ɛ}n* I stuck out my anus [166.8])
ī-k!ū^{u}ma'n he prepared it 190.22 (cf. *ī-k!ū^{u}mini'^{ɛ}n* I prepared it)

It must be confessed that it has not been found possible to find a simple rule that would enable one to tell whether an *i*-verb does or does not keep a final *-hi* (*-'i*). Certain verbs, even though without instrumental signification, show an *-i-* (or *-hi-*) in all forms with third personal object. Such are:

aorist *ogoy-* give to (*ogoīhi* he gave it to him 156.20)
aorist *we^{e}t'-g-* take away from (*wēt'gi* he took it from him, 16.13)
aorist *lagag-* feed (*laga'k'i* he gave him to eat 30.12; *lāk'i* give him to eat! *lāk'igana'k* we seem to have given him to eat)

and indirective verbs in *-anan-*. Irregularities of an unaccountable character occur. Thus we have:

he^{eɛ}-īū he left him (cf. *he^{eɛ}-ī^{i}wi'^{ɛ}n* I left him); but imperative *he^{eɛ}-īwi'hi* leave him! (not **-īwi'*, as we might expect)

In many cases the loss or retention of the final *-hi* seems directly connected with syntactic considerations. A large class of verbs with instrumental prefix (generally *ī-*) drop the final *-hi*, presumably because the instrumentality is only indefinitely referred to (cf. § 35, 1). Examples of such have been given above. As soon, however, as the instrument is explicitly referred to, as when an instrumental noun is incorporated in or precedes the verb, the *-hi* is restored. Thus:

[1] The *-i-* of these verbs regularly disappears, not only here but in every form in which the normal connecting vowel *-a-* fails to appear in other verbs: *al-xī'^{ɛ}k'* (inferential) HE SAW HIM (**al-xīk!-k'* like *dōmk'* HE KILLED HIM), homonymous with *al-xī'^{ɛ}k'* (imperative) SEE HIM! (=**alxī'k!*). As soon, however, as the verb becomes distinctly instrumental in force, the *-i-* is a constant element: *al-wa-xī'k!k'* (inferential) HE SAW IT WITH IT.

la-ᵉī-t'bā'ᵃk' he burst it (cf. *-t'bā'ᵃgiᵉn* I burst it)
ī-s·wili's·wal he tore it to pieces (cf. *-s·wili's·wiliᵉn* I tore it to pieces)
ī-s·wi'ls·wal tear it to pieces!
ī-s·wīᵉls·wa'l he tore it (once)
ī-heme'm he wrestled with him 22.10 (cf. *-hememi'ᵉn* I wrestled with him

despite the prefixed *-ī-*; but:

la-waya-t'bā'ᵃk'i he burst it with a knife
han-waya-s·wils·wa'lhi tear it through in pieces with a knife! (73.3)

Similarly:

bā-ᵉī-sgāᵃk'sga'k' he picked him up 31.11 (cf. *-sgāk'sgigiᵉn* I picked him up)

but:

k!a'māᵃ dan bāᵃ-sgāᵃk'sga'k'i tongs rocks he-picked-them-up-with (=he picked up rocks with tongs) 170.17

despite the lack of an instrumental prefix in the verb. Explicit instrumentality, however, can hardly be the most fundamental function of the *-hi*. It seems that whenever a transitive verb that primarily takes but one object is made to take a second (generally instrumental or indirective in character) the instrumental *-i-* (with retained *-hi*) is employed. Thus:

ma'xla k!ūwū he threw dust

but:

ma'xla ᵉalk!ūwūhi dust he-threw-it-at-him (perhaps best translated as he-bethrew-him-with-dust) cf. 184.5

where the logically direct object is *ma'xla*, while the logically indirect, perhaps grammatically direct, object is implied by the final *-hi* and the prefix *al-*. Similarly, in:

k'oᵉpx bababa't'i wāᵃdi'xda ashes he-clapped-them-over his-body (perhaps best rendered by: he-beclapped-his-body-with-ashes) 182.9

the logically direct obiect is *k'oᵉpx*, the logically indirect object, his-body, seems to be implied by the *-i*. This interpretation of the *-hi* as being dependent upon the presence of two explicit objects is confirmed by the fact that most, if not all, simple verbs that regularly retain it (such as GIVE TO, SAY TO in non-aorist forms, BRING TO, verbs in *-anan-*) logically demand two objects.

As soon as the verb ceases to be transitive (or passive) in form or when the third personal object is the personal *-k'wa*, the instrumental *-i-* disappears:

gel-yalā'^{a}xalt'gwit' he forgot himself 77.10 (cf. *gel-yalā'^{a}xaldi^{ɛ}n* I forgot him)

ogoīk'wa he gave it to him 96.18 (cf. *ogoīhi* he gave it to him 188.12)

It is possible that in *wēt'gigwa* HE TOOK IT FROM HIM the *-gi-* is a peculiar suffix not compounded of petrified *-g-* (see § 42, 6) and instrumental *-i-*; contrast *ī-t!ana'hi* HE HELD IT with *ī-t!ana'hagwa* HE HELD HIM. Any ordinary transitive verb may lose its object and take a new instrumental object, whereupon the instrumental *-i-* becomes necessary. Examples of such instrumentalized transitives are:

ga'l^{ɛ} wa-ts!ayagi'^{ɛ}n bow I-with-shoot-it (cf. *ts!ayaga'^{ɛ}n* I shoot him)

wa-^{ɛ}ū^{u}gwi'^{ɛ}n I drink with it (cf. *ū^{u}gwa'^{ɛ}n* I drink it)

If, however, it is desired to keep the old object as well as the new instrumental object, a suffix *-an-* seems necessary. Thus:

yap!a wa-sā^{a}ginina'^{ɛ} people they-will-be-shot-with-it

xī'^{i} wa-^{ɛ}ū^{u}gwini'^{ɛ}n water I-drink-it-with-it

It is not clear whether or not this *-an-* is related to either of the *-an-* elements of *-anan-* (§ 50).

A final *-'i* is kept phonetically distinct in that it does not unite with a preceding fortis, but allows the fortis to be treated as a syllabic final, i. e., to become ^{ɛ} + aspirated surd:

he^{eɛ}-ī-le'me^{ɛ}k'i he killed them off, but *-le'mek!i^{ɛ}n* I killed them off

Forms without connective vowel whose stem ends in a vowel, and yet (as instrumentals or otherwise) require an *-i-*, simply insert this element (under proper phonetic conditions as *-hi-*) before the modal and personal suffixes:

wa-woo'hin I shall go to get it with it (contrast *woo'n* I shall go to get it)

ī-t!ana'hi^{ɛ}n I hold it; *ī-t!ana'hi* he holds it 27.4

di-s·al-yomo'hin I shall run behind and catch up with him; *di-s·al-yomo'hi* catch up with him! (contrast *yomo'n* I shall catch up with him)

wa-sana'hink' they will spear them with them 28.15 (verb-stem *sana-*)

A constant *-a-* used to support a preceding consonant combination is, in *-i-* verbs, colored to *-i-*:

ī-lasgi' touch him! (cf. *masga'* put it! [104.8])

It is remarkable that several verbs with instrumental vocalism lose the *-i-* and substitute the ordinary connective *-a-* in the frequentative. Such are:

*ī-go'yok!*i^{ε}*n* I nudge him; *ī-goyogiy*a'^{ε}*n* I keep pushing him
*dī^{i}-t!ī^{i}s*i'^{ε}*n* I crush it; *dī^{i}-t!iyī't!iy*a^{ε}*n* I keep crushing them

It can hardly be accidental that in both these cases the loss of the *-i-* is accompanied by the loss of a petrified consonant (*-k!-*, *-s-*).

The following scheme of the instrumental forms of *dō^{u}m-* KILL (third personal object) will best illustrate the phonetic behavior of *-i-*:

	Aorist	Future	Potential	Inferential	Present imperative	Future imperative
Singular:						
First person . .	*t!omom*i'^{ε}n	*dō^{u}m*i'n	*dō^{u}m*i'^{ε}n	*dŏm*hlga^{ε}		
Second person . .	*t!omom*i't'	*dō^{u}m*lda'^{ε}	*dō^{u}m*i't'	*dŏm*hik!eĭt'	*dōm*hi	*dōm*hi^{ε}k'
Third person . .	*t!omŏm*hi	*dō^{u}m*i'nk'	*dŏm*hl	*dŏm*hik'		
Plural:						
First person . .	*t!omom*ina'k'	*dō^{u}m*inaga'm	*dō^{u}m*ina'k'	*dŏm*hlgana'k'	*dōm*hiba^{ε}	
Second person . .	*t!omom*i't'p'	*dō^{u}m*i't'ba^{ε}	*dō^{u}m*i't'p'	*dŏm*hik!eĭt'p'	*dōm*hip'	

§ 65. Forms Without Connecting Vowel

A considerable number of transitive verbs whose aorist stem ends in a long diphthong with rising pitch (long vowel + semivowel, nasal, or liquid) treat this diphthong as a vocalic unit, i. e., do not allow the second element of the diphthong to become semivocalic and thus capable of being followed by a connective *-a-* before the personal endings (cf. intransitive forms like *eĭ-t'*, § 60). If such a long diphthong is final, or precedes a consonant (like *-t'*) that is itself incapable of entering into diphthongal combination with a preceding vowel, no difficulty arises. If, however, the long diphthong precedes an *-n-* (in such endings as *-^{ε}n*, *-n*, *-nak'*), which, as has been seen, is phonetically on a line with the semivowels *y* (*i*) and *w* (*u*), a long double diphthong (long vowel + semivowel, nasal, or liquid + *n* of time-value 4) results. Such a diphthong can not be tolerated, but must be reduced to an ordinary long diphthong of time-value 3 by the loss of the second element (semivowel, nasal, or liquid) of the diphthong of the stem (see § 11). Thus the coexistence of such apparently contradictory forms as *dā^{a}-yehèĭt'* YOU GO WHERE THERE IS SINGING and *dā^{a}-yehēn* (with passive *-n*) IT WAS GONE WHERE THERE WAS SINGING (from **yehèĭn*) can be explained by a simple consideration of syllabic

weight. The rising pitch-accent, it should be noted, is always preserved as an integral element of the diphthong, even though a *-ᵉn* follow, so that the first personal singular subject third personal object of such verbs (*-ṽᵉn*) stands in sharp contrast to the corresponding form of the great mass of transitive verbs (*-v′ᵉn*).[1] The first person plural subject third person object and the third personal passive are always parallel in form to the first person singular subject third person object in *-ᵉn* (*k!adāᵃna'k'* and *k!adān* like *k!adãᵉn*). Examples of transitives with aorist stems ending in long diphthongs not followed by connective *-a-* are:

t'gwaxãᵉn I tattoo him	:	*t'gwaxãīt'* you tattoo him
dī-t!ügũᵉn I wear it	:	*dī-t!ügūī* he wears it 96.16
dāᵃ-yehēᵉn I go where there is singing	:	*dāᵃ-yehèīt'* you go where there is singing (106.10)
dāᵃ-yehēn (third person passive)		
dāᵃ-yeheᵉna'k' (first person plural)		
k!adãᵉn I picked them up	:	*k!adāī* he picked them up
da-t!agãᵉn I built a fire	:	*da-t!agāī* he built a fire 88.12; 96.17
swadān (passive) they got beaten in gambling	:	*swadāīsaᵉn* they are gambling with one another
oyõᵉn I give it (= **oyõnᵉn*) but also *oyona′ᵉn* with connecting *-a-*		
k!emẽᵉn I did it 74.13	:	*k!emèī* he did it 92.22; 144.6; 176.1, 4, 5, 7, 8, 9, 14

In aorist *k!emèi-* MAKE the *-i-*, actually or impliedly, appears only when the object is of the third person (singular first, *k!emẽᵉn;* second, *k!emèīt';* third, *k!emèī;* plural first, *k!emeᵉna'k';* second, *k!emèīt'p');* all other aoristic and all non-aoristic forms replace the *-i-* by a *-n-*:

k!emẽnxbiᵉn I make you 27.9

k!emẽnxaᵉn they make one another; future *k!emna'nk'* he will make it 28.14

A few reduplicated transitives ending, in both aorist and verb-stems, in a short diphthong (*-al-*, *-am-*, *-an-*, *-aw-*), lack a connective *-a-*

[1] It may be noted in passing that the Takelma reduction of an over-long diphthong (*èin* to *eᵉn*) offers in some respects a remarkable parallel to the reduction of an Indo-Germanic long diphthong to a simple long vowel before certain consonants, chiefly *-m* (e. g., Indo-Germanic **dḭ̄ēu̯s* = Skr. *dyāu's*, Gk. *Zεύς*, with preserved *-u̯-* because followed by *-s*, a consonant not capable of entering into diphthongal combination; but Indo-Germanic acc. **dḭ̄ēm*=Ved. Skr. *dyâm*, Hom. Gk. *Zῆν* with lost *-u̯-* because followed by *-m*, a consonant capable of entering into diphthongal combination). I do not wish to imply, however, that the accent of forms like *yehẽᵉn* is, as in *dḭ̄ēm*, the compensating result of contraction.

before the personal endings, so that a loss of the final consonant (*-l-*, *-m-*, *-n-*, *-w-*) takes place in third personal objective forms before a consonantal personal ending. Such verbs are:

heme'ha^{ɛ}n I mocked him (= *-ham^{ɛ}n*)	:	*heme'ham* he mocked him 24.4, 5, 8; 182.6, 7
īmi'ha^{ɛ}n I sent him (=*-am^{ɛ}n*)	:	*imi'hamsin* I was sent (43.2)
gel-hewe'ha^{ɛ}n[1] I think (=*-au^{ɛ}n*) *gel-hewe'hat'* you think	:	*gel-hewe'hau* he thought 44.11; 142.20
p!a-i-di^{ɛ}-sgimi'sga^{ɛ}n[2] I set them in ground (=*-am^{ɛ}n*)	:	*p!a-i-di^{ɛ}-sgimi'sgam* he set them in ground
bā-^{ɛ}al-mo'lo^{ɛ}ma^{ɛ}n I turned them over (=*-al^{ɛ}n*) *bā-^{ɛ}al-mo'l^{ɛ}man* I shall turn them over (=*-aln*)	:	*bā-^{ɛ}al-mo'lo^{ɛ}mal* he turned them over (170.16)
sā^{a}nsa'^{ɛ}n I fight him (=*-an^{ɛ}n*)	:	*sā^{a}nsa'n* he fights him (28.10) (but also *sāns*, see § 40, 10b)
mā^{a}nma'^{ɛ}n I count them (=*-an^{ɛ}n*)	:	*da-mā^{a}nmini'^{ɛ}n* I count them up (156.14) (but also *mān*= **mānm* he counted them 78.8; 100.8)

How explain the genesis of these two sets of contract verb forms, and how explain the existence of doublets like *mo'lo^{ɛ}ma^{ɛ}n* and *mo'-lo^{ɛ}mala^{ɛ}n*, *mo'lo^{ɛ}mat'* and *mo'lo^{ɛ}malat'*, *oyõ^{ɛ}n* and *oyona'^{ɛ}n*, *sā^{a}nsa'n* and *sāns*? The most plausible explanation that can be offered is that originally the personal endings were added directly to the stem and that later a connecting *-a-* developed whenever the preceding consonant or the personal ending was not of a character to form a diphthong. Hence the original paradigms may have been:

First person	*oyõ^{ɛ}n*	*mo'lo^{ɛ}ma^{ɛ}n*
Second person	*oyona't'*	*mo'lo^{ɛ}mala't'*
Third person	*oyõn*	*mo'lo^{ɛ}mal*

which were then leveled out to:

oyona'^{ɛ}n	*mo'lo^{ɛ}mala^{ɛ}n*
oyona't'	*mo'lo^{ɛ}mala't'*
oyõn	*mo'lo^{ɛ}mal*

because of the analogy of a vast number of verbs with connecting *-a-* in both first and second persons, e. g., *ts!ayaga'^{ɛ}n*, *ts!ayaga't'*. Forms like *mo'lo^{ɛ}mat'*, *sā^{a}nsa't'*, would arise from leveling to the first

[1] This verb is transitive only in form, intransitive in meaning. The true transitive (THINK OF) employs the full stem *hewehaw-* with connective *-i-* for third personal object, and *-s-* for other objects: *gel-hewe'hiwi^{ɛ}n* I THINK OF HIM; *gel-hewe'hausdam* YOU THINK OF ME.

[2] The form *sgimi'sga^{ɛ}n* is interesting as a test case of these contract verb forms. The stem must be *sgimisgam-*; it can not be *sgimisg-*, as *sg-* could hardly be treated as a repeated initial consonant. No cases are known of initial consonant clusters treated as phonetic units.

person by the analogy of such forms as *t!omoma'ᵋn, t!omoma'ᵗ*. The third person generally brings out the original diphthong, yet sometimes the analogy set by the first person seems to be carried over to the third person (e. g., *sāns* beside *sāᵃnsa'n*), as well as to the third person passive and first person plural subject transitive. Such forms as *oyõᵋn* are best considered as survivals of an older "athematic" type of forms, later put on the wane by the spread of the "thematic" type with connecting *-a-* (e. g., *gayawa'ᵋn*, not **gayãᵋn* from **gayaũᵋn*). Owing to the fact that the operation of phonetic laws gave rise to various paradigmatic irregularities in the "athematic" forms, these sank into the background. They are now represented by aorists of Type 2 verbs like *naga'-ᵋn* I SAY TO HIM and *wa-k!oyõ-ᵋn* I GO WITH HIM,[1] non-aorist forms of Type 5 verbs (e. g., *odo'-n*), and such isolated irregularities as intransitive *eĩ-t'* and *nagaĩ-t'* (contrast *yewey-a'ᵗ* and *t'agaya'ᵗ*) and transitive contract verbs like *k!adãᵋn* and *sāᵃnsa'ᵋn*.

§ 66. Passives

Passives, which occur in Takelma texts with great frequency, must be looked upon as amplifications of transitive forms with third personal subject. Every such transitive form may be converted into a passive by the omission of the transitive subject and the addition of elements characteristic of that voice; the pronominal object of the transitive becomes the logical, not formal, subject of the passive (passives, properly speaking, have no subject). The passive suffixes referred to are *-(a)n* for the aorist, *-(a)naᵋ* for the future, and *-am* for the inferential. Imperatives were not obtained, nor is it certain that they exist. Following are the passive forms of *dõᵘm-*, instrumental forms being put in parentheses:

	Aorist	Future	Potential	Inferential
Singular:				
First person	*t!ümũxin*	*dũmxinaᵋ*	*dũmxin*	*dũmxigam*
Second person	*t!omõxbin*	*dõmxbinaᵋ*	*dõmxbin*	*dõmxbigam*
Third person	*t!omoma'n* (*t!omomi'n*)	*dõᵘmana'ᵋ* (*dõᵘmina'ᵋ*)	*dõᵘma'n* (*dõᵘmi'n*)	*dõmk'am* (*dõmhigam*)
Plural:				
First person	*t!omõximin*	*dõmximinaᵋ*	*dõmximin*	*dõmxamk'am*
Second person	*t!omõxanban*	*dõmxanbanaᵋ*	*dõmxanban*	*dõmxanp'gam*

[1] Some verbs whose aorist stem ends in a vowel take a constant *-a-* with preceding inorganic *h* instead of adding the personal endings directly. Such a verb is *ĩ-t!ana-* HOLD; the constant *-a-* or *-i-* of forms like *ĩ-t!ana'hagwa, ĩ-t!ene'hi-s'dam* is perhaps due to the analogy of the instrumental *-i-* of forms like *ĩ-t!ana'hiᵋn*.

The connective *-a-*, it will be observed, is replaced by *-i-* when the formal object is the first person plural (*-am-*); compare the entirely analogous phenomenon in the second personal subjective first personal plural objective forms of the transitive (§ 63). It is curious that the third person aorist of the passive can in every single case be mechanically formed with perfect safety by simply removing the catch from the first personal singular subjective third personal objective of the transitive; the falling accent (rising accent for verbs like *k!emē^{ɛ}n*) remains unchanged:

ī-t!a'ut!iwi^{ɛ}n I caught him : *ī-t!a'ut!iwin* he was caught 29.12
naga'^{ɛ}n I said to him 72.7, 9 : *naga'n* he was spoken to 102.16
k!emē^{ɛ}n I made it 74.13 : *k!emēn* it was made 13.12 178.12

It is hardly possible that a genetic relation exists between the two forms, though a mechanical association is not psychologically incredible.

Not only morphologically, but also syntactically, are passives closely related to transitive forms. It is the logical unexpressed subject of a passive sentence, not the grammatical subject (logical and formal object), that is referred to by the reflexive possessive in *-gwa* (see §§ 91, 92). Thus:

dīk!olola'n t'gā'^{a}p'dagwan wa' he-was-dug-up their-own-horns (not his-own-horns) with (in other words, they dug him up with their own horns) 48.5

There is no real way of expressing the agent of a passive construction. The commonest method is to use a periphrasis with *xebe'^{ɛ}n* HE DID SO. Thus:

eī salk!omo'k!imin p!iyin xebe'^{ɛ}n canoe it-was-kicked-to-pieces deer they-did-so (in other words, the canoe was kicked to pieces by the deer) 114.5

§ 67. VERBS OF MIXED CLASS, CLASS IV

A fairly considerable number of verbs are made up of forms that belong partly to Class I or Class II intransitives, partly to the transitives. These may be conveniently grouped together as Class IV, but are again to be subdivided into three groups. A few instransitive verbs showing forms of both Class I and II have been already spoken of (pp. 162–3, 166).

1. Probably the larger number is taken up by Type 13 verbs in *-n-*, all the forms of which are transitives except those with second person singular or plural subject. These latter are forms of Class II (i. e., aorist singular *-dam*, plural *-dap'*; future singular *-da^{ɛ}*, plural

-daba^{s}). The *-n-* appears only in the first person singular and plural (aorist *-na^{s}n* and *-nana'k'*), yet its absence in the other persons may, though not probably, be due to a secondary loss induced by the phonetic conditions. The forms, though in part morphologically transitive (and, for some of the verbs, apparently so in meaning), are in effect intransitive. The object, as far as the signification of the verb allows one to grant its existence, is always a pronominally unexpressed third person, and the instrumental *-i-* can not be used before the personal endings. Among these semitransitives in *-n-* are:

*gwen-sgut!u'sgat'*na^{s}n I cut necks
gwen-sgut!u'sgat' he cut necks 144.2 (cf. transitive instrumentals *gwen-waya-sgut!u'sgidi^{s}n*, *gwen-waya-sgut!u'sgat'i* 144.3)
*da-bok!oba'k'*na^{s}n I make bubbles (or *da-bok!o'p'na^{s}n* 102.22)
*da-bok!o'p'*dam you make bubbles
*bā^{a}-xada'xat'*na^{s}n I hang them up in row
*lobola'p'*na^{s}n I used to pound them (57.14) (or *lobo'lp'na^{s}n*)
*lobo'lp'*dam you used to pound them
*ī-layā'^{a}k'*na^{s}n I coil a basket 122.2
ī-layā'^{a}k' she coils a basket
*k!ada'k!at'*na^{s}n I used to pick them up (116.11)
*da-dagada'k'*na^{s}n I sharpen my teeth (126.18)
*ūgū'^{s}ak'*na^{s}n I always drink it
*wagao'k'*na^{s}n I always bring it 43.16; 45.6)

Morphologically identical with these, yet with no trace of transitive signification, are:

*ī-hegwe'hak'^{w}*na^{s}n I am working
*xa-hege'hak'*na^{s}n I breathe (78.12; 79.1, 2, 4)
*xa-huk!u'hak'*na^{s}n (third person *xa-huk!u'hak'*)
*al-t'wap!a't'wap'*na^{s}n I blink with my eyes 102.20
*al-t'wap!a't'wap'*dam you blink with your eyes

The following forms of *ī-hegwehagw-* (verb-stem *ī-he^{e}gwagw-* [= *-he^{e}gwhagw-*]) WORK will serve to illustrate the *-n-* formation:

	Aorist	Future	Inferential	Present Imperative
Singular:				
1st per.	*hegwe'hak'w*na^{s}n	*heegwa'k'w*nan	*heegwa'k'wa^{s}* (=*-kw'-k'a^{s}*)	
2d per.	*hegwe'hak'w*dam	*heegwa'k'wda^{s}*	*heegwa'k!weī't'*	*he'k'wāak'w*
3d per.	*hegwe'hak'w*	[?]	*heegwa'k'w*	
Plural:				
1st per.	*hegwe'hak'w*nana'k'	*heegwa'k'w*nanagam	*heegwa'k'w*ana'k'	*hegwa'k'w*aba^{s}
2d per.	*hegwe'hak'w*dap'	*heegwa'k'w*daba^{s}	*heegwa'k!weī't'p'*	*he'k'wāagwa'np'*

2. Practically a sub-group of the preceding set of verbs is formed by a very few verbs that have their aorist like *ī-hegwe'hak'^{w}na^{s}n*,

but their non-aorist forms like Class II intransitives. They evidently waver between Class II, to which they seem properly to belong, and the semi-transitive *-n-* forms. Such are:

*dī-k!ala's*na^{ɛ}n (but also *dī-k!ala's*de^{ɛ}) I am lean in my rump	:	future *dī-k!a'lsi*de^{e}
dī-k!ala'sdam (second person)	:	future *dī-k!a'lsi*da^{ɛ}
*gwel-sal-t!eyēs*na^{ɛ}*n* I have no flesh on my legs and feet	:	future-*t!eīsi*de^{e}

It may be observed that the existence of a form like **gwel-sal-t!eī-sinan* was denied, so that we are not here dealing with a mere mistaken mixture of distinct, though in meaning identical, verbs.

3. The most curious set of verbs belonging to Class IV is formed by a small number of intransitives, as far as signification is concerned, with a thoroughly transitive aorist, but with non-aorist forms belonging entirely to Class II. This is the only group of verbs in which a difference in tense is associated with a radical difference in class. Examples are:

dā^{a}-sgek!iya'^{ɛ}n I listened *dā^{a}-sgek!iya*'t' you listened *dā^{a}-sgek!ī* he listened 102.8	:	future *dā^{a}-sge'k!i*t'e^{e}
al-we'k!ala^{ɛ}n I shine *al-we'k!al*at' you shine	:	future *al-we'k!alt'*e^{e}
*al-we'k!al*ana'k' we shine	:	future *al-we'k!alp'*igam (third person inferential *al-we'-k!alp'*k')
al-geyana'^{ɛ}n I turn away my face	:	future *al-ge'yan*de^{e}
da-smayama'^{ɛ}n *da-smayañha*^{ɛ}n } I smile *da-smayañ* he smiles *da-smayam*ana'k' we smile	:	future *da-sma-ima'sde*^{e}

To these should probably be added also *da-sgayana'*^{ɛ}*n* I lie down (3d *da-sgayañ*), though no future was obtained. Here again it may be noted that the existence of **da-sma-ima'n* as a possible (and indeed to be expected) future of *da-smayama'*^{ɛ}*n* was denied.[1]

[1] There are in Takelma also a number of logically intransitive verbs with transitive forms throughout all the tense-modes: *al-xalīyana'k'* WE ARE SEATED (56.2; 150.20); passive *al-xalīya'n* PEOPLE ARE SEATED 152.18. Similar is *sal-xogwī* THEY STAND; cf. also *gel-hewe'hau* HE THINKS, p. 179, note 1. As these, however, have nothing to mark them off morphologically from ordinary transitives, they give no occasion for special treatment. It is probable that in them the action is conceived of as directed toward some implied third personal object.

5. *Auxiliary and Subordinating Forms* (§§ 68–72)

§ 68. PERIPHRASTIC FUTURES

Periphrastic future forms are brought about by prefixing to the third personal (unexpressed) objective forms of the *aorist* stem *-gulug^{w}-* DESIRE, INTEND the verb-stem (if transitive, with its appended pronominal object) of the verb whose future tense is desired. The pronominal subject of such a form is given by the transitive subject pronoun of the second element (*-gulug^{w}-*) of the compound; while the object of the whole form, if the verb is transitive, is coincident with the incorporated pronominal object of the first element. The form of the verb-stem preceding the *-gulug^{w}-* suffix is identical with the form it takes in the inferential. Thus:

ba-i-hema'k'ulu'k'^{w} he will take it out (cf. inferential *ba-i-hema'k'=-hemg-k'*), but imperative *ba-i-he'mk'* 16.10

but, without inorganic *a:*

ī-hēmgulu'k'^{w} he will wrestle with him (cf. inferential *hēmk'*)

Indeed, it is quite likely that the main verb is used in the inferential form, the *-k'* of the inferential amalgamating with the *g-* of *-gulug^{w}-* to form *g* or *k'*. This seems to be proved by the form:

loho'k'-di-gulugwa't' do you intend to die? (*di*= interrogative particle)

Morphologically the verb-stem with its incorporated object must itself be considered as a verb-noun incorporated as a prefix in the verb *-gulug^{w}-* and replacing the prefix *gel-* BREAST of *gel-gulugwa'^{ɛ}n* I DESIRE IT 32.5, 6, 7. Alongside, e. g., of the ordinary future form *dō^{u}ma'n* I SHALL KILL HIM may be used the periphrastic *dō^{u}m-gulugwa'^{ɛ}n* literally, I KILL (HIM)-DESIRE, INTEND. This latter form is not by any means a mere desiderative (I DESIRE TO KILL HIM would be expressed by *dō^{u}mia' gel-gulugwa'^{ɛ}n* [=TO-KILL-HIM I-IT-DESIRE]), but a purely formal future. Similarly, *dũmxi-gulu'k'^{w}* is used alongside of the simpler *dũmxink'* HE WILL KILL ME. As a matter of fact the third personal subjective future in *-gulu'k'^{w}* is used about as frequently as the regular paradigmatic forms heretofore given:

yana'-k'ulu'k'^{w} he will go (128.9)
sana'p'-gulu'k'^{w} he will fight (cf. 48.10)
yomo'k'wagulu'k'^{w} she was about to catch up with him 140.18
alxī'^{ɛ}xbi-gulu'k'^{w} he will see you

The reason is obvious. The normal futures (*yana'ᵉt'* HE WILL GO; *sana'p'dāᵃ; alxī'ᵉxbink'*) imply a bald certainty, as it were, of the future action of a third person, a certainty that is not in ordinary life generally justifiable. The periphrastic forms, on the other hand, have a less rigid tone about them, and seem often to have a slight intentive force: HE INTENDS, IS ABOUT TO GO. The difference between the two futures may perhaps be brought out by a comparison with the English I SHALL KILL HIM (=*dōᵘma'n*) and I'M GOING TO KILL HIM (*dōᵘm-gulugwa'ᵉn*).

Though a form like *dũmxi-gulu'k'ʷ* HE WILL KILL ME is in a way analogous to *s·in-ī-lets!e'xi* HE TOUCHES MY NOSE, the incorporated object *dũmxi-* KILL-ME of the former being parallel to *s·in-* NOSE of the latter, there is an important difference between the two in that the object of the periphrastic future is always associated with the logically (*dōᵘm-*), not formally (*-gulugʷ-*), main verb. This difference may be graphically expressed as follows: HE-[KILL-ME]-INTENDS-IT, but HE-[NOSE-HAND]-TOUCHES-ME; strict analogy with the latter form would require **dōᵘm-gülü'xi* HE-[KILL]-INTENDS-ME, a type of form that is not found. It is not necessary to give a paradigm of periphrastic future forms, as any desired form can be readily constructed from what has already been said. The incorporated pronominal object is always independent of the subject-suffix, so that YOU WILL KILL ME, for example, is rendered by *dũmxi-gulugwa't'*, the ordinary YOU—ME forms (singular *-dam*, plural *-dap'*) finding no place here.

Inasmuch as all active periphrastic futures are transitive in form, passive futures of the same type (all ending in *-gulugwa'n*) can be formed from all verbs, whether transitive or intransitive. When formed from transitive stems, these forms are equivalent to the normal future passives in *-(a)naᵉ*:

dōᵘm-gulugwa'n he will, is about to, is going to be killed
dũmxi-gulugwa'n I am to be killed, it is intended to kill me

As the intransitive stem in the periphrastic future is never accompanied by pronominal affixes, there is only one passive future form that can be constructed from an intransitive verb. This form always refers to the third person, generally to the intended or imminent action of a group of people:

hoida-gulugwa'n (verb-stem *hoid-* + inorganic *-a-*) there will be dancing

lō^{u}-gulugwa'n people are going to play (literally, it is play-intended)

The passive future in *-gulugwa'n* can also be used with the indefinite form in *-iau-*:

sana'xiniau-gulugwa'n it is intended, about to be that people fight one another; there will be fighting

The extreme of abstract expression seems to be reached in such not uncommon forms as:

we'^{e}giau-gulugwa'n it was going to be daylight (literally, it was being-daylight intended) 48.13

As the suffixed pronominal objects of reciprocal forms are intransitive in character, the first element of a periphrastic future of the reciprocal must show an incorporated intransitive pronoun, but of aorist, not future form:

ī-di-lasgi'xant'p'-gulugwa't'p' are you going to touch one another? (aorist *ī-lats!a'xant'p'*; future *ī-lasgi'xant'ba^{e}*)

§ 69. PERIPHRASTIC PHRASES IN *na(g)-* DO, ACT

The verbal base *na(g)*[1] (intransitive *na-;* transitive *nā^{a}g-*) has hitherto been translated as SAY (intransitive), SAY TO (transitive). This, however, is only a specialized meaning of the constantly recurring base, its more general signification being DO, ACT, BE IN MOTION indefinitely. It is really never used alone, but is regularly accompanied by some preceding word or phrase with which it is connected in a periphrastic construction; the *na(g)-* form playing the part of an auxiliary. As a verb of saying, *na(g)-* is regularly preceded by a quotation, or else some word or phrase, generally a demonstrative pronoun, grammatically summarizing the quotation. Properly speaking, then, a sentence like I SHALL GO, HE SAID (TO ME) (=*yana't'e^{e}* [*ga*] *naga'i^{g}* [or *nege's·i*]) is rendered in Takelma by I SHALL GO (THAT) HE DID (*or* HE DID TO ME), in which the quotation *yana't'e^{e}* I SHALL GO, or else its representative *ga* THAT, is incorporated as prefix in the general verb of action.

The most interesting point in connection with periphrastic phrases in *na(g)-* is the use of a number of invariable, generally monosyllabic, verbal bases as incorporated prefixes. The main idea, logically speaking, of the phrase is expressed in the prefix, the *na(g)-*

[1] Most of its forms, as far as known, are listed, for convenience of reference, in Appendix A, pp. 286-90. It will be seen to be irregular in several respects. Examples of its forms are to be found in great number in "Takelma Texts."

element serving merely to give it grammatical form. This usage is identical with that so frequently employed in Chinookan dialects, where significant uninflected particles are joined into periphrastic constructions with some form of the verb-stem *-x-* DO, MAKE, BECOME (e. g., Wasco *łq!u'b itciux* HE CUT IT [literally, CUT HE-IT-MADE]), except that in Takelma the particles are identical with the bases of normally formed verbs. It is not known how many such verb-particles there are, or even whether they are at all numerous. The few examples obtained are:

na^{ɛ} do (cf. *na't'e^{ɛ}* I shall say, do)
s·as· come to a stand (cf. *s·as·inī* he stands 144.14)
s·il paddle canoe (cf. *ei-ba-i-s·ili'xgwa* he landed with his canoe 13.5)
t'gel^{ɛ} fall, drop
ts·!el rattle (cf. *ts·ele'^{ɛ}m* it rattles 102.13)
t'bō'^{u}x make a racket (cf. *t'bō'^{u}xde^{ɛ}* I make a noise)
liwā'^{a} look (cf. *·liwila'ut'e^{ɛ}* I looked [60.7])
le'yas lame (cf. *gwel-le'ye^{ɛ}sde^{ɛ}* I am lame)
p'i'was jumping lightly (cf. *p'iwits!ana'^{ɛ}n* I make it bounce)
we'k!alk' shining (cf. *al-we'k!ala^{ɛ}n* I shine)
sgala'uk' look moving one's head to side (cf. *al-sgalawi'n* I shall look at him moving my head to side)

The last two are evidently representatives of a whole class of quasi-adverbial *-k'*-derivatives from verb-stems, and, though syntactically similar to the rest, hardly belong to them morphologically. The *-k'* of these invariable verb-derivatives can hardly be identified with the inferential *-k'*, as it is treated differently. Thus:

we'k!al-k' shining 126.3; 128.14, but inferential *al-we'k!al-p'-k'* (Class IV, 3) he shone

Most frequently employed of those listed is *na^{ɛ}*, which is in all probability nothing but the base *na-* DO, to forms of which it is itself prefixed; its function is to make of the base *na(g)-* a pure verb of action or motion in contradistinction to the use of the latter as a verb of saying:

ga-nāk'i say that to him! 55.8, but *ga-na^{ɛ}nāk'i* do that to him! 182.4; 184.4
ga-naga'^{iɛ} he said that 72.12, but *ga-na^{ɛ}naga'^{iɛ}* he did that 58.3
gwal̃t' a-na^{ɛ}na'^{ɛ}t' the wind will blow as it is blowing now (literally, wind [*gwal̃t'*] this [*a-*]-do [*na^{ɛ}*]-act-will [*na'^{ɛ}t'*]) (152.8)
ga-na^{ɛ}ne'x thus, in that way (literally, that do-acting, doing) 71.6; 110.21; but *ga-ne'x* that saying, to say that 184.10

Examples of the other elements are:

ei-s·i'l-naga'$^{i\varepsilon}$ [1] he paddled his canoe (literally, he canoe-paddle-did) 13.5
s·as·-naga'$^{i\varepsilon}$ he came to a stand 22.6; 31.14, 15; 55.12; 96.23
s·as·-nā^{a}gi'n I shall bring him to a halt (literally, I shall *s·as·*-do to him)
liwā'^{a}-nagaīt'e$^{\varepsilon}$ I looked (55.6; 78.10, 13; 79.5)
t'ge'l$^{\varepsilon}$-nagaīt'e$^{\varepsilon}$ I fell, dropped down
t'gel$^{\varepsilon}$ naga$^{\varepsilon}$nā'$^{a\varepsilon}$k' he always fell down 62.8
ts!e'l naga'$^{i\varepsilon}$ (bones) rattled (literally, they did *ts!el*) 79.8
t'bō'^{u}x naga' they made a racket so as to be heard by them 192.9
we'k!alk'-naga'$^{i\varepsilon}$ he shines
sgala'uk'-naganā'$^{a\varepsilon}$k' he looked continually moving his head from side to side 144.14, 17
gwēlxdā^{a} le'yas-na'k' his leg was laming 160.17
p'i'was-naga'$^{i\varepsilon}$ he jumped up lightly 48.8

Syntactically analogous to these are the frequent examples of postpositions (see § 96), adverbs, and local phrases prefixed to forms of the undefined verb of action *na(g)-*, the exact sense in which the latter is to be taken being determined by the particular circumstances of the locution. Examples are:

gada'k'-naga'$^{i\varepsilon}$ they passed over it (literally, thereon they did) 190.21
ganau-nagana'$^{\varepsilon}$k' he went from one (trap) to another (literally, therein he kept doing) 78.5
hawi-nāk'i tell him to wait! (literally, still do to him!)
hagwā^{a}la'm (in the road) *-naga'$^{i\varepsilon}$* (he did) (= he traveled in the road)
haxiya' (in the water) *-naga'$^{i\varepsilon}$* (= he went by water)
dak'-s·inī'^{i}da (over his nose) *-nabā'$^{a\varepsilon}$ha'n* (let us do) (= let us [flock of crows] pass over him!) 144.11
da'k'dā^{a}da (over him) *-na'* (do!) (= pass over him!)
dak'-yawadē (over my ribs) *-naga'$^{i\varepsilon}$* (=he passed by me)
ge (there) *-naga'$^{i\varepsilon}$* (= they passed there) 144.18
he$^{e\varepsilon}$-wila'mxa-hi (beyond Mount Wila'mxa) *-nāk'^{w}* (do having it!) (= proceed with it to beyond Mount Wila'mxa!) 196.14

These examples serve to indicate, at the same time, that the particles above mentioned stand in an adverbial relation to the *na(g)-* form:

s·as·-naga'$^{i\varepsilon}$ he come-to-a-stand-did, like *ge naga'$^{i\varepsilon}$* he there-did

Compare the similar parallelism in Wasco of:

[1] *s·il* has been found as a prefix also in the comitative *ei-s·il-yā^{a}ngwa'$^{\varepsilon}$n* I COME IN A CANOE (literally, I-CANOE-PADDLING-GO-HAVING).

k!wa'c gali'xux afraid he-made-himself (= he became afraid) (see "Wishram Texts," 152.9)

kwô'ba gali'xux there he-made-himself (= he got to be there, came there)

Here may also be mentioned the use of verb-stems prefixed to the forms of *k!emn-* MAKE and *nā^{a}g-* SAY TO. Such locutions are causative in signification, but probably differ from formal causatives in that the activity of the subject is more clearly defined. Examples are:

wede wo'k' k!emna't' do not let him arrive! (literally, not arrive make-him!)

wo'k' k!emana'nxi let me come! (literally, arrive make-me!)

gwel-leīs k!emna'n I shall make him lame (literally, be-lame I-shall-make-him)

yana nāk'i let him go (literally, go say-to-him)

The forms involving *k!emen-* are quite similar morphologically to periphrastic futures in *-gulug^w-*, the main point of difference being that, while *k!emen-* occurs as independent verb, *-gulug^w-* is never found without a prefix. The forms involving *nā^{a}g-* are probably best considered as consisting of an imperative followed by a quotative verb form. Thus *yana nāk'i* is perhaps best rendered as "GO!" SAY IT TO HIM! The form *hoida-yo'k'ya^{e}s* (*hoid-* DANCE + connective *-a-*) ONE WHO KNOWS HOW TO DANCE suggests that similar compound verbs can be formed from *yok'y-* KNOW.

§ 70. SUBORDINATING FORMS

A number of syntactic suffixes are found in Takelma, which, when appended to a verbal form, serve to give it a subordinate or dependent value. Such subordinate forms bear a temporal, causal, conditional, or relative relation to the main verb of the sentence, but are often best translated simply as participles. Four such subordinating suffixes have been found:

-da^e(-t'a^e), serving to subordinate the active forms of the aorist.

-ma^e, subordinating those of the passive aorist.

-na^e, subordinating all inferential forms in *-k'*. Periphrastic inferential forms in *eīt'* and *eīt'p'* are treated like aorists, the form-giving elements of such periphrases being indeed nothing but the second person singular and plural aorist of *ei-* BE.

-k'i^e (*-gi^e*), appended directly to the non-aorist stem, forming dependent clauses of unfulfilled action, its most frequent use being

the formation of conditions. Before examples are given of subordinate constructions, a few remarks on the subordinate forms themselves will be in place.

The aoristic *-da$^{\varepsilon}$-* forms of an intransitive verb like *hōg^{w}-* RUN are:

	Independent	Subordinate
Singular:		
First person . .	*hō'k'de$^{\varepsilon}$* I run	*hō'k'de^{e}da$^{\varepsilon}$* when I ran, I running
Second person .	*hōgwa't'*	*hōgwada'$^{\varepsilon}$*
Third person .	*hō'$^{\varepsilon}$k'*	*hō'k'da$^{\varepsilon}$*
Plural:		
First person . .	*hōgwi'k'*	*hōgwiga'm*
Second person .	*hōgwa't'p'*	*hōgwa't'ba$^{\varepsilon}$*
Impersonal . . .	*hōgwia'$^{u\varepsilon}$*	*hōgwia'-uda$^{\varepsilon}$*

Of these forms, that of the first person plural in *-a'm* is identical, as far as the suffix is concerned, with the future form of the corresponding person and number. The example given above (*hōgwiga'm*) was found used quite analogously to the more transparently subordinate forms of the other persons (*alxī'^{i}xam hōgwiga'm* HE SAW US RUN, like *alxī'^{i}xi hō'k'de^{e}da$^{\varepsilon}$* HE SAW ME RUN); the form of the stem is all that keeps apart the future and the subordinate aorist of the first person plural (thus *hogwiga'm* WE SHALL RUN with short *o*). No form in *-i'k'da$^{\varepsilon}$*, such as might perhaps be expected, was found. The catch of the first and third person singular of class I verbs disappears before the *-da$^{\varepsilon}$* (see § 22). The falling accent of the stem, however, remains, and the quantity of the stressed vowel is lengthened unless followed by a diphthong-forming element. Thus:

yā'^{a}da$^{\varepsilon}$ when he went 58.8 (*ya'$^{\varepsilon}$* he went 96.8); cf. 188.17
ba-i-k!iyī'^{i}k'da$^{\varepsilon}$ when he came (*ba-i-k!iyi'$^{\varepsilon}$k'* he came 156.24)
yawa'ida$^{\varepsilon}$ as they were talking 130.13 (*yawa'$^{i\varepsilon}$* they talked)
xebe'nda$^{\varepsilon}$ when he did so 142.10 (*xebe'$^{\varepsilon}$n* he did so 118.14)

The subordinate form of the third person aorist of class II intransitives ends in *-t'a$^{\varepsilon}$* if the immediately preceding vowel has a rising accent. Thus:

s·as·inīt'a$^{\varepsilon}$ when he stood (*s·as·inī* he stood 120.12)
lop!ōt'a$^{\varepsilon}$ when it rained (*lop!o't'* it rained 90.1)

In the second person singular the personal *-t'* and the *-d-* of the subordinating suffix amalgamate to *-d-*. The subordinate second person plural in *-t'ba$^{\varepsilon}$* is not improbably simply formed on the analogy of the corresponding singular form in *-da$^{\varepsilon}$*, the normal difference

between the singular and plural of the second person consisting simply of the added *-b-* (*-p'*) of the latter; similarly, *e-ida'ᵉ* WHEN THOU ART and *eīt'baᵉ* WHEN YE ARE. Judging by the analogy of the subordinates of transitive forms in *-dam* and *-dap'* the subordinate forms of the second persons of class II intransitives end in *-t'aᵉ* (*-daᵉ*) and *-t'abaᵉ* (*-dabaᵉ*):

s·as·inīt'aᵉ when you stood (*s·as·inīt'am* you stood)
s·as·inīt'baᵉ when ye stood (*s·as·inīt'ap'* ye stood)

Note the ambiguity of the form *s·as·inīt'aᵉ* WHEN HE OR YOU STOOD; compare the similar ambiguity in *naga'-idaᵉ* WHEN HE SAID and *naga-ida'ᵉ* WHEN YOU SAID 130.14; 132.23.

The transitive subordinates of the aorist are also characterized by a suffixed *-daᵉ*, except that forms with a third personal subject invariably substitute *-(a)na'ᵉ* (*-ina'ᵉ* with first person plural object), and that the personal endings *-dam* (THOU—ME) and *-dap'* (YE—ME) become simply *-daᵉ* and *-dabaᵉ* respectively. The latter forms are thus distinguished from non-subordinate futures merely by the aoristic stem (*al-xī'ⁱxdaᵉ* WHEN YOU SAW ME, but *al-xī'ᵉxdaᵉ* YOU WILL SEE ME). Analogously to what we have seen to take place in the intransitive, *-t'p'* becomes *-t'baᵉ*. The subordinate aorists of *t!omom-* KILL are:[1]

Subjective	Objective				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per.		*t!omŏxbindaᵉ* (*t!omŏxbiᵉn*)	*t!omoma'ndaᵉ* (*t!omoma'ᵉn*)		*t!omŏxanbandaᵉ* (*t!omŏxanbaᵉn*)
2d per.	*t!ūmūxdaᵉ* (*t!ūmūxdam*)		*t!omomada'ᵉ* (*t!omoma't'*)	*t!omŏximidaᵉ* (*t!omŏximit'*)	
3d per.	*t!ūmūxinaᵉ* (*t!ūmūxi*)	*t!omŏxbinaᵉ* (*t!omŏxbi*)	*t!omomana'ᵉ* (*t!omŏm*)	*t!omŏximinaᵉ* (*t!omŏxam*)	*t!omŏxanbanaᵉ* (*t!omŏxanp'*)
Plural:					
1st per.		*t!omŏxbinagam* (*t!omŏxbinak'*)	*t!omomanaga'm* (*t!omomana'k'*)		*t!omŏxanbanagam* (*t!omŏxanbanak'*)
2d per.	*t!ūmūxdabaᵉ* (*t!ūmūxdap'*)		*t!omoma't'baᵉ* (*t!omoma't'p'*)	*t!omŏximit'baᵉ* (*t!omŏximit'p'*)	

The forms with first personal plural subject (*-na'k'*) and second personal object were not obtained, but the corresponding forms in *-iga'm* (first person plural intransitive) and *-anaga'm* (first person plural subject third person object) leave no doubt as to their correctness. These forms differ from ordinary futures of the same

[1] The corresponding non-subordinate forms are given in parentheses.

number and person only in the use of the aorist stem. Only very few examples of subordinate *-anaga'm* have been found:

aga'hi ligigwanaga'm just-these which-we-brought-home 134.18; contrast *lī^{i}gwanaga'm* we shall bring them home

yewē xebe^{e}yagwanaga'm if we should slay him (literally, perhaps that-we-slay-him) 136.23; contrast *xe^{e}bagwanaga'm* we shall slay him

The use of the aorist stem in the subordinate, it will be observed, is also the only characteristic that serves to keep distinct the third personal subjective subordinates and the future forms of the passive:

al-xī'^{i}xbina^{ɛ} when he saw you, but *al-xī'^{ɛ}xbina^{ɛ}* you will be seen

It may be noted that the third personal subjective aorist forms of the transitive may be mechanically formed, like the passives of the same tense, from the first person singular subject third person object aorist by merely dropping the glottal catch of the latter form and adding *-a^{ɛ}*. Thus:

gel-hewe'hana^{ɛ} when he thought 45.2; 142.10, 13, 16 (cf. *gel-hewe'ha^{ɛ}n* I thought); but *gel-hewe'hau* he thought 44.11

The subordinate of the form with personal object *-k'xa* is formed by adding *-na^{ɛ}*:

malãk'wana^{ɛ} when he told him 72.14 (*malãk'wa* he told him 142.4)

The aorist passive subordinates cause no trouble whatever, the characteristic *-ma^{ɛ}* being in every case simply appended to the final *-n* of the passive form:

t!omoma'nma^{ɛ} when he was killed 146.22 (from *t!omoma'n* he was killed 148.3)

t!omõxanbanma^{ɛ} when you (plural) were killed

The complete subordinate inferential paradigm is rather motley in appearance; *-na^{ɛ}* is suffixed to the third personal subject in *-k'*:

p!ãk'na^{ɛ} when he bathed

laba'k'na^{ɛ} when he carried it 126.5

gaĩk'na^{ɛ} when he ate it

dũmxik'na^{ɛ} when he killed me

The first person singular in *-k'a^{ɛ}(n)* becomes *-k'anda^{ɛ};* the first person plural subordinate was not obtained, but doubtless has *-k'anaga'm* as ending. The subordinate of the passive in *-k'am* is regularly formed by the addition of *-na^{ɛ}*:

gaĩk'amna^{ɛ} when it was eaten

dõmxamk'amna^{ɛ} when we were killed

The periphrastic forms in *eĩt'* and *eĩt'p'* become *-k'* + *eida'ᵉ* and *eĩt'baᵉ* in the subordinate; e. g., *wāᵃhīⁱmt'k!eida'ᵉ* WHEN YOU ANSWERED HIM. The active inferential subordinates of *dōᵘm-* with third personal object thus are:

Singular:
First person, *dõmk'andaᵉ*
Second person, *doᵘmk!eida'ᵉ*
Plural:
First person, *dõmk'anaga'm*
Second person, *dōᵘmk!eĩt'baᵉ*
Third person, *dõmk'naᵉ*; personal, *dõmk'wak'naᵉ*
Impersonal *dōᵘmiaūk'naᵉ*

The subordinating element *-naᵉ* also makes a subordinate clause out of a *-t'* participle (see §76):

gwi na't'naᵉ gaᵉ a'ldi naga'n how-he-looked (*gwi na't'* how-looking) that all he-was-called 60.5; (cf. 78.3)
yap!a ga na't'naᵉ that number of people 110.15

Also adjectives and local phrases may be turned into subordinate clauses by the suffixing of *-naᵉ*:

xilam-na'ᵉ when she was sick 188.10
aga dõᵘk' gwelda-na'ᵉ this log under-it when (=while he was under this log) 190.20

Examples will now be given of constructions illustrating the use of subordinate forms. It is artificial, from a rigidly native point of view, to speak of causal, temporal, relative, and other uses of the subordinate; yet an arrangement of Takelma examples from the view-point of English syntax has the advantage of bringing out more clearly the range of possibility in the use of subordinates. The subordinate clause may be directly attached to the rest of the sentence, or, if its temporal, causal, or other significance needs to be clearly brought out, it may be introduced by a relative adverb or pronoun (WHERE, WHEN, HOW, WHO). Both constructions are sometimes possible; e. g., a sentence like I DO NOT KNOW WHO KILLED HIM may be rendered either by NOT I-IT-KNOW WHO HE-HIM-KILLING or NOT I-WHOM-KNOW HE-HIM-KILLING. Subordinate constructions with causal signification are:

ts·!olx (1) *ü's·i* (2) *t!ümũxdaᵉ* (3) give me (2) dentalia (1), for you have struck me (3) (cf. 15.8)
a'nīᵉ (1) *gel-gülü'xi* (2) *gayawa'ndaᵉ* (3) he does not (1) like me (2), because I ate it (3)

gũxde^{ɛ} (1) *gayawana'^{ɛ}* (2) *goyo'* (3) *yap!a* (4) *aldĩ* (5) *he^{ɛ}-ĩ-leme'k!it'* (6) you killed off (6) all (5) the people (4), because shamans (3) ate (2) your wife (1) 146.11

a'nĩ^{ɛ} (1) *ya'^{ɛ}* (2) *gĩ^{i}* (3) *me^{ɛ}-wõ^{u}k'de^{e}da^{ɛ}* (4) *ga^{ɛ}a'l* (5) he did not (1) go (2), because I (3) came (4); *ga^{ɛ}a'l* (on account of, for) is employed to render preceding subordinate unambiguously causal

a'nĩ^{ɛ} (1) *s·in-ho'k'wal* (2) *yu'k'na^{ɛ}* (3) *ga* (4) *ga^{ɛ}al* (5) *sbĩn^{ɛ}a* (6) *xa'm-hi* (7) *lãp'k'* (8) not (1) being (3) nose-holed (2), for (5) that (4) (reason) Beaver (6) got to be (8) under water (7) 166.18

A temporal signification is found in:

hã^{aɛ}-yewe'^{iɛ} (1) *aldĩl* (2) *t!omoma'nma^{ɛ}* (3) they all (2) returned far off (1), after (many of them) had been slain (3) 146.22

goyo (1) *gel-lohoigwa'nma^{ɛ}* (2) when shamans (1) are avenged (2) 148.2

ba-i-k!iyi'^{ɛ}k' (1) *p'im* (2) *gayawa'nda^{ɛ}* (3) he came (1) when I was eating (3) salmon (2)

al-xĩ'^{i}gi^{ɛ}n (1) *gwi^{ɛ}ne* (2) *yã'^{a}da^{ɛ}* (3) I saw him (1) when (2) he went (3)

Relative clauses of one kind and another, including indirect questions, are illustrated in:

a'nĩ^{ɛ} (1) *nek'* (2) *yok!oya'^{ɛ}n* (3) *lege'xina^{ɛ}* (4) I do not (1) know (3) who (2) gave me to eat (4) (literally, not I-whom-know he-giving-me-to-eat)

yok!oya'^{ɛ}n (1) *nek'* (2) *laga'ximina^{ɛ}* (3) I know (1) who (2) gave us to eat (3)

mãn (1) *mi'xal* (2) *ha-lohõ^{u}nana'^{ɛ}* (3) he counted (1) how many (2) he had trapped (3) 100.8

a'nĩ^{ɛ} (1) *yok!õĩ* (2) *gwi* (3) *giniyagwa'nma^{ɛ}* (4) he did not (1) know (2) where (3) she had been taken to (4) 13.12

ga'hi (1) *dũk'* (2) *dĩ-t!ũgũĩ* (3) *wa-k!ododi'nma^{ɛ}* (4) they wore (3) the same (1) garments (2) with which they had been buried (4) 96.16

gĩ^{i} (1) *na^{ɛ}nagaĩt'e^{e}da^{ɛ}* (2) *na^{ɛ}na'^{ɛ}k'* (3) do (future imperative) (3) what I (1) am doing (2)

ĩ-k'we'^{e}xi (1) *ulum* (2) *waĩk'anda^{ɛ}* (3) they awoke me (1) who (or while, when I) before (2) was sleeping (3) 74.5; 75.6

Purpose may be implied by the subordinate in:

p'im (1) *gayawana'^{ɛ}* (2) *laga'k'i* (3) he gave them (3) salmon (1) to eat (2) 30.11

The subordinate serves very frequently as a clause of indirect discourse after such verbs as KNOW, SEE, DISCOVER. With a regular

verb of saying, such as *na(g)-*, it is nearly always necessary to report the exact words of the speaker.

al-xī'ⁱgiᵉn (1) *xebeyigi'kʿwanaᵉ* (2) I saw him (1) hurt him (2)
yok!oya'ᵉn (1) *pʿim* (2) *gaīkʿnaᵉ* (3) I know (1) that he has been eating (3) salmon (2) (literally, I-know-him salmon he-having-eaten)
al-xī'ⁱxi (1) *t!omõxanbandaᵉ* (2) he saw me (1) strike you (pl.) (2)
al-xī'ⁱgiᵉn (1) *dal-yewe'idaᵉ* (2) I saw him (1) run away (2)

Not infrequently an adverb is to be considered the main predicate, particularly when supported by the unanalyzable but probably verbal form *wala'ᵉsi(naᵉ)*, while the main verb follows as a subordinate clause. Compare such English turns as IT IS HERE THAT I SAW HIM, instead of HERE I SAW HIM:

emeᵉ (1) *wala'ᵉsi* (2) *eītʿeᵉdaᵉ* (3) I am (3) right (2) here (1) (literally, here it-is really [?] that-I-am)
emeᵉ (1) *wala'ᵉsi* (2) *eida'ᵉ* (3) you are (3) right (2) here (1)
mīⁱ (1) *wala'ᵉsi* (2) *ī-k!ūmanana'nhikʿnaᵉ* (3) he had already fixed it for him (literally, already (1) it-was-really (2) that-he-had-fixed-it-for-him (3))

Examples of subordidates depending on predicatively used adverbs without *wala'ᵉsi* are:

a'nīᵉ (1) *wanã* (2) *emeᵉ* (3) *nè'idaᵉ* (4) [it is] not (1) even (2) here (3) that they did (4) (probably = even they did not get here) 61.3
hop!è'ᵉn (1) *p!ā'ᵃs* (2) *hiʿs* (3) *lop!õtʿaᵉ* (4) it used to snow long ago (long ago [1] that snow [2] almost [3] stormed [4])
alī (1) *heᵉ-ī-leme'k!indaᵉ* (2) [it is] right here (1) that I destroy them (2) 108.20

An example of a subordinate depending on a demonstrative pronoun is:

ī'daga (1) *yap!a* (2) *sˑasˑinītʿaᵉ* (3) that man is standing (literally, [it is] that [1] man [2] that is standing [3])

The form *wala'ᵉsinaᵉ* is in all probability a third personal aorist transitive subordinate form in *-naᵉ*, as is shown by its use as a substantive verb for the third person when following an adverb, apparently to supply the lack of a third person in the regular substantive verb *ei-*:

emeᵉ (1) *walaᵉsinaᵉ* (2) *ā'k!a* (3) he (3) is right (2) here (1) (literally, something like: [it is] here that-it-really-is he)
ge (1) *wala'ᵉsˑinaᵉ* (2) he is over there (literally, [it is] there [1] that-he-really-is [2])

Most astonishing is the use of *wala'ᵉs·inaᵉ* as a modal prefix of a subordinate verb (of the movable class treated above, see § 34) to assert the truth of an action in the manner of our English DID in sentences like HE DID GO. Thus, from *dak'-da-hālsbi* HE ANSWERED YOU, is formed the emphatic *dak'-da-wala'ᵉsinaᵉ-hālsbinaᵉ* HE DID ANSWER YOU. The only analysis of this form that seems possible is to consider the verbal prefixes *dak'-da-* as a predicative adverb upon which *wala'ᵉsinaᵉ* is syntactically dependent, the main verb *-hālsbinaᵉ* itself depending as a subordinate clause on its modal prefix. The fact that *dak'-da-* has as good as no concrete independent existence as adverb, but is idiomatically used with the verbal base *hal-* to make up the idea of ANSWER, is really no reason for rejecting this analysis, strange as it may appear, for the mere grammatical form of a sentence need have no immediate connection with its logical dismemberment. The above form might be literally translated as (IT IS) ABOVE (*dak'-*) WITH-HIS-MOUTH (*da-*) THAT-IT-REALLY-IS THAT-HE-ANSWERED-YOU.

§ 71. CONDITIONALS

Conditionals differ from other subordinate forms in that they are derived, not from the full verb-form with its subject-affix, but, if intransitive, directly from the verb-stem; if transitive, from the verb-stem with incorporated pronominal object. In other words, the conditional suffix *-k'iᵉ* (*-giᵉ*) is added to the same phonetic verbal units as appear in the inferential before the characteristic *-k'*, and in the periphrastic future before the second element *-gulugʷ-*. The phonetic and to some extent psychologic similarity between the inferential (e. g., *dūmxik'* HE EVIDENTLY STRUCK ME) and the conditional (e. g., *dūmxigiᵉ* IF HE STRIKES, HAD STRUCK ME) makes it not improbable that the latter is a derivative in *-iᵉ* of the third personal subjective form in *-k'* of the latter. The conditional, differing again from other subordinates in this respect, shows no variation for pronominal subjects, the first and second personal subjective forms being periphrastically expressed by the addition to the conditional of the third personal subjective of the appropriate forms of *ei-* BE. From verb-stem *yana-* GO, for example, are derived:

Singular:

First person, *yana'k'iᵉ eĭt'eᵉ*
Second person, *yana'k'iᵉ eĭt'*
Third person, *yana'k'iᵉ*

Plural:
First person, *yana'k'iᵉ eᵉbi'k'*
Second person, *yana'k'iᵉ eīt'p'*
Impersonal: *yanayaūk'iᵉ*

The conditional is used not merely, as its name implies, to express the protasis of a condition, but as the general subordinate form of unrealized activity; as such it may often be translated as a temporal or relative clause, an introductory adverb or relative pronoun serving to give it the desired shade of meaning. Examples of its use other than as a conditional, in the strict sense of the word, are:

yok!oya'ᵉn (1) *nek'* (2) *lāxbigiᵉ* (3) I know (1) who (2) will give you to eat (3)
dewe'nxa (1) *al-xī'k!in* (2) *gwiᵉne* (3) *yana'k'iᵉ* (4) I shall see him (2) to-morrow (1), when (3) he goes (4)
al-xī'ᵉxink' (1) *gwiᵉne* (2) *yana'k'iᵉ eīt'eᵉ* (3) he will see me (1) when (2) I go (3)
gwen-t'gāᵃ-bo'k'danda (1) *ts·!ō'ᵘt!igiᵉ* (2) *yā'ᵃ* (3) *heᵉne* (4) *yā'ᵃ* (5) *xeᵉbagwa'n* (6) just (3) [1]when they touch (2) the eastern extremity of the earth (1), just (5) then (4) I shall destroy them (6) 144.15

It has a comparative signification (AS THOUGH) in:

p!īⁱ (1) *de-gü'k!alxgiᵉ* (2) *naᵉnaga'ᵗᵉ* (3) it was (3) as though fire (1) were glowing (2) 142.1

Conditional sentences are of two types:

(1) Simple, referring to action of which, though unfulfilled, there yet remains the possibility of fulfillment.

(2) Contrary to fact, the hypothetical activity being beyond the possibility of fulfillment.

Both types of condition require the conditional form in the protasis, but differ in the apodosis. The apodosis of a simple conditional sentence contains always a future form (or inferential, if the apodosis is negative), that of a contrary-to-fact condition, a potential. Examples of simple conditions are:

ga (1) *naᵉnāk'iᵉ eīt'* (2) *haxada'ᵉ* (3) if you do (2) that (1), you'll get burnt (3)
āk' (1) *yana'k'iᵉ* (2) *gīⁱ* (3) *honoᵉ* (4) *yana't'eᵉ* (5) if he (1) goes (2), I (3) go (5) too (4)
wede (1) *yana'k'iᵉ* (2) *gīⁱ* (3) *honoᵉ* (4) *wede* (5) *yana'k'aᵉ* (6) if he does not (1) go (2), I (3) won't (5) go (6) either (4)
gwal̄t' (1) *mahai* (2) *wo'k'iᵉ* (3) *ga* (4) *nāᵃgi'ᵉk'* (5) if a great (2) wind (1) arrives (3), say (5) that! (4) 196.19

[1]Just when = AS SOON AS.

The apodosis of such conditions is sometimes introduced by the demonstrative pronoun *ga* THAT, which may be rendered in such cases by THEN, IN THAT CASE:

aga (1) *xā^{a}-sgō'^{u}sgi^{ɛ}* (2) *ga* (3) *loho'ť'e^{ɛ}* (4) if this (1) string parts (2), in that case (3) I shall be dead (4) 59.10, (11)

Of this type are also all general conditions referring to customary action that is to take place in time to come, such as are often introduced in English by words like WHENEVER, WHEREVER, and so on.[1] Examples of such general conditions are:

wi'lau (1) *k!emniyaūk'i^{ɛ}* (2) *wa-ť'bā'^{a}gamdina^{ɛ}* (3) whenever people will make (2) arrows (1), they (arrows) will be backed (literally, tied) with it (3) (with sinew) 28.2

wā^{a}dī'^{i} (1) *dū* (2) *ba-i-gināk'wi^{ɛ}* [2] (3) *goyo'* (4) *he^{ɛ}ne* (5) *dō^{u}-mana'^{ɛ}* (6) whenever a shaman (4) goes out with [3] (3) one whose body (1) is good (2), then (5) he shall be slain (6) 146.6

goyo (1) *gel-lohogwiaūk'i^{ɛ}* (2) *he^{ɛ}ne* (3) *yā'^{a}s·i^{ɛ}* (4) *yap!a* (5) *gama'xdi* (6) *p!è'^{ɛ}ť'* (7) whenever one takes vengeance for (2) a shaman (1), just (4) then (3) ordinary (6) people (5) will lie (7) (i. e., be slain) 146.8

wede (1) *hono^{ɛ}* (2) *ne'k'* (3) *al-xī'^{ɛ}k'wak'* (4) *yap!a* (5) *loho'k'i^{ɛ}* (6) no (1) one (3) will see him (4) again (2), when a person (5) dies (6) 98.10

gana^{ɛ}ne'x (1) *yo'^{ɛ}ť'* (2) *yap!a* (3) *gāīk'i^{ɛ}* (4) thus (1) it shall be (2) as people (3) grow, multiply (4) 146.15

Examples of contrary-to-fact conditions are:

aldī (1) *yuk'ya'k'i^{ɛ} eīť'e^{ɛ}* (2) *mala'xbi^{ɛ}n* (3) if I knew (2) all (1), I should tell it to you (3) 162.5

nek' (1) *yo'k'i^{ɛ}* (2) *dak'-līmxgwa^{ɛ}* (3) if it were (2) anyone else (1), it (tree) would have fallen on him (3) 108.11, 13

ī'daga (1) *ge* (2) *yu'k'i^{ɛ}* (3) *wede* (4) *dō^{u}ma'^{ɛ}n* (5) if that one (1) had been (3) there (2), I should not (4) have killed him (5)

gī^{i} (1) *ge* (2) *yu'k'i^{ɛ} eīť'e^{ɛ}* (3) *bō^{u}* (4) *yana'^{ɛ}* (5) *haga'* (6) if I (1) were (3) there (2), he would have gone (5) in that event (4)

In the last example, *haga'* is a demonstrative adverb serving to summarize the protasis, being about equivalent to our IN THAT EVENT, UNDER THOSE CIRCUMSTANCES. This word may be the adverbialized

[1] General conditions, however, that apply to past time, or that have application without reference to time-limit, are constructed by the use of the subordinate for the protasis, and aorist for the apodosis, both verbs being, if possible, frequentative or continuative in form: *ts·!ixi* (1) *k'ewe'ek'awalda^{ɛ}* (2) *he^{ɛ}ne* (3) *yap!a* (4) *al-t!layaīk'* (5) WHENEVER THE DOG (1) BARKED (2), THEN (3) HE FOUND (5) A PERSON (4).

[2] = *-gināk'w* + *-k'i^{ɛ}*.

[3] Causes the death of.

form of the demonstrative pronoun *hā'ᵉga* THAT ONE; it is used also with persons other than the third:

yana't'eᵉ haga' I should have gone in that event

§ 72. USES OF POTENTIAL AND INFERENTIAL

The potential and inferential modes differ from the aorist in the negative particle with which they may be combined. An indicative non-future statement, such as is expressed by the aorist, is negatived, without change of the verb-form, by means of the negative adverb *a'nīᵉ*:

yãnt'eᵉ I went; *a'nīᵉ yãnt'eᵉ* I did not go

An imperative or future form, however, can not be directly negatived, but must be expressed by the potential and inferential respectively, the non-aoristic negative adverb *wede* being prefixed. Thus we have:

Negative future:

yana'ᵉt' he will go	:	*wede yana'k'* he will not go
yanada'ᵉ you will go	:	*wede yana'k!eīt'* you will not go
yana't'eᵉ I shall go	:	*wede yana'k'aᵉ* I shall not go
dõmxbin I shall kill you 178.15	:	*wede dõmxbigaᵉ* I shall not kill you (cf. 178.15)
dõᵘma'nk' he will kill him	:	*wede* (1) *ne'k'* (2) *yap!a* (3) *gama'xdi* (4) *dõᵘmk'* (5) no (1) one (2) will slay (5) a person (3) who is no shaman (4) 146.16

Negative imperative:

yana' go! (sing.)	:	*wede yana't'* do not go!
yana'np' go! (pl.)	:	*wede yana't'p'* do not go! (156.9)
dõᵘm kill him!	:	*wede dõᵘma't'* do not kill him!
ga naᵉna' do that!	:	*wede ga naᵉna't'* do not do that!

The particle *wede* is used with the inferential and potential, not only to form the negative future and imperative, but in all cases in which these modes are negatived, e. g., *wede dõᵘma'ᵉn* I SHOULD NOT HAVE KILLED HIM, I WOULD NOT KILL HIM. There is thus no morphologic distinction between a prohibitive DO NOT GO! and a second person subject negative apodosis of a contrary-to-fact condition, YOU WOULD NOT HAVE GONE. It is probably not a mere accident that the negative particle *wede* is phonetically identical with the verb-stem *wede-* TAKE AWAY. This plausible etymology of *wede* suggests that the origin of

the negative future and imperative constructions lies in such periphrastic sentences as:

Remove (all thought from your mind) that I (inferentially) go (i. e., I shall not go)

Remove (all thought from your mind) that you might, would go (i. e., do not go!)

The inferential, as we have seen above (see § 59), is used primarily to indicate that the action is not directly known through personal experience. An excellent example of how such a shade of meaning can be imparted even to a form of the first person singular was given in § 70; *s·ᵉī¹-kʻwe'ᵉxi ulum waīkʻandaᵉ* THEY WOKE ME UP WHILE I WAS SLEEPING! 74.5 In the myth from which this sentence is taken, Coyote is represented as suffering death in the attempt to carry out one of his foolish pranks. Ants, however, sting him back into life; whereupon Coyote, instead of being duly grateful, angrily exclaims as above, assuming, to save his self-esteem, that he has really only been taking an intentional nap. The inferential form *waīkʻandaᵉ* is used in preference to the matter-of-fact aorist *wayāntʻeᵉdaᵉ* I SLEEPING, because of the implied inference, I WASN'T DEAD, AFTER ALL, ELSE HOW COULD THEY WAKE ME? I WAS REALLY SLEEPING, MUST HAVE BEEN SLEEPING. Closely akin to this primary use of the inferential is its frequent use in rhetorical questions of anger, surprise, wonder, and discovery of fact after ignorance of it for some time. Examples from the myths, where the context gives them the necessary psychological setting, are:

gemeʻᵉdi (1) *gīⁱ* (2) *wayaūxagwatʻ* (3) *yuʻkʻaᵉ* (4) how (1) should I (2) be (4) daughter-in-lawed (3) (i. e., how do I come to have any daugher-in-law?) 56.10 I didn't know that you, my son, were married!

gīⁱ (1) *diʻ* (2) *haʻmiᵉtʻban* (3) *dõᵘmkʻaᵉ* (4) did I (1) kill (4) your father (3) ? (2) 158.2

s·-gwi dīʻ (1) *leʻmk!iaukʻ* (2) where (1) have they all gone (2), any way? 90.25, 27 says Coyote, looking in vain for help

ō + (1) *mīⁱ* (2) *diʻ* (3) *s·amgiaʻukʻ* (4) Oh! (1) has it gotten to be summer (4) already (2)? (3) says Coyote, after a winter's sleep in a tree-trunk 92.9

ga (1) *diʻ* (2) *xēpʻkʻ* (3) *ga* (4) *diʻ* (5) *gūᵘxdeʻkʻ* (6) *gaīkʻ* (7) so it is those (1) that did it (3) ? (2) those (4) that ate (7) my wife (6) ? (5) 142.18

[1] *s·ᵉ-* merely marks the Coyote (see footnote, § 2).

e'me^{ɛ} (1) *daba'^{ɛ}x* (2) *di* (3) *^{ɛ}eī^{ɛ}a* (4) *yu'k'* (5) are (5) canoes (4) (to be found) only (2) here (1) ? (3) 114.7 (i. e., why do you bother me about ferrying you across, when there are plenty of canoes elsewhere?)

ga (1) *di'* (2) *p!ā'^{a}nt'* (3) *gaīk'a^{ɛ}* (4) so that (1) was their livers (3) that I ate (4) ? (2) 120.14 says Grizzly Bear, who imagined she had eaten not her children's, but Black Bear's children's, livers, on discovering her mistake

A peculiar Takelma idiom is the interrogative use of *gwī^{ɛ}ne* WHEN, HOW LONG followed by *wede* and the inferential, to denote a series of repetitions or an unbroken continuity of action. Examples are:

gwī^{ɛ}ne (1) *di'* (2) *wede* (3) *waīk'* (4) he kept on sleeping (literally, when [1] did he not [3] sleep [4] ? [2]) 142.11; 152.24

gwi^{ɛ}ne' (1) *di* (2) *wede* (3) *ho'k'* (4) he ran and ran (literally, how long [1] did he not [3] run [4] ? [2]) 78.14.

gwī^{ɛ}ne (1) *di'* (2) *wede* (3) *dāk'am* (4) he kept on being found, they always stumbled upon him again (literally, when [1] was he not [3] found [4] ? [2]) 110.15

Similar psychologically is the non-negative future in:

ge'me^{ɛ}di (1) *hono^{ɛ}* (2) *al-dā^{a}gi'nk'* (3) they never found him again (lit., when [1] will they find him [3] again ? [2]) 190.25

6. Nominal and Adjectival Derivatives (§§ 73–83)

§ 73. INTRODUCTORY

Although such derivatives from the verb-stem as infinitives and nouns of agency should logically be treated under the denominating rather than the predicative forms of speech, they are in Takelma, as in most other languages, so closely connected as regards morphology with the latter, that it is much more convenient to treat them immediately after the predicative verb-forms. The number of nominal and adjectival forms derived from the Takelma verb-stem is not very large, comprising infinitives or verbal nouns of action, active and passive participles, nouns of agency, and a few other forms whose function is somewhat less transparent. The use made of them, however, is rather considerable, and they not infrequently play an important part in the expression of subordinate verbal ideas.

§ 74. INFINITIVES

Infinitives, or, as they are perhaps better termed, verbal nouns, may be formed from all verbs by the addition of certain suffixes to the stem or stem + pronominal object, if the verb form is transitive.

Inasmuch as infinitives, being nothing but nouns in form, may take possessive affixes, forms may easily result that combine a transitive object and a possessive pronoun; e. g., *dõmxbiyat'k'* MY (*-t'k'* scheme III § 92) KILLING YOU (*-bi-*), FOR ME TO KILL YOU (cf. *yēxbiyaxdek'* MY BITING YOU 116.9; *-x-dek'* scheme II § 92). The classification of verbs into classes is reflected also in the infinitive forms, each of the three main classes being distinguished by a special infinitive suffix. The suffixes are:

Intransitive I *-(a')x.*
Intransitive II *-k'wa* (*-gwa*).
Transitive *-ia* (*-ya*).

The peculiar sub-classes that were grouped together as Class IV all form their infinitives in *-k'wa* (*-gwa*). Besides these three main suffixes, *-(d)epx-* (*-apx-*) with possessive suffixes is employed to form infinitives from reflexives in *-gwi-*, while active intransitives in *-xa-* form their infinitives by employing the bare stem-form with verbal derivative *-xa*. Infinitives in *-xa'k'wa* also occur. The infinitive often shows the stem in a purer form than the non-aorist finite forms; in particular the non-aoristic *-p'-* of Class II intransitive verbs regularly disappears before the *-gwa* of the infinitive.

Examples of infinitives are:

1. From Class I intransitives:

waĭxde^{e} your sleeping
bā^{a}-dawi'x to fly up
hogwa'x to run
t!e^{e}wa'x to play shinny

ne'x saying 108.16; 184.10

yana'x to go
hoida'x to dance
lõ^{u}x to play 31.7
na^{e}ne'x doing 94.10; 72.4; 148.13
gina'x to go (176.8) (from simple base *gin-;* contrast third person future *ging-a'^{e}t'*)

Stems ending in long diphthongs either take *-x* or *-ax*. Thus we have either *ha-yèā-x-dā^{a}da* or *ha-ye^{e}w-a'x-dā^{a}da* IN THEIR RETURNING 124.15.

2. From Class II intransitives:

k'wā'$^{a e}$xgwa to wake up (intransitive)
geiwa'lxgwa to eat
lãk'wa to become
p!ala'k'wa to tell a myth

t'gēlxgwa to run around, roll

ba-i-di'n^{e}xgwa to march
s·a's·ank'wa to stand
sana'k'wa to fight

3. From Class IV verbs:

ī-he^{e}gwa'k'wa (= *-he^{e}g^{w}hag^{w}-k'wa*) to work — *al-we'k!alk'wa* to shine

da-bo^{e}k'ba'xgwa to bubble under water (observe verb-suffix *-x-* of infinitive; but *da-bok!oba'k'na^{e}n* I make bubbles)

4. From *-xa-* verbs:

lū'^{e}xwa' (=*lūk!-xa'*) to trap — *p'e'lxa* to go to war (but also *p'elxa'k'wa*[1])

5. From reflexives:

t'gwā^{a}xa'nt'gwidepxdagwa to tattoo himself — *se^{e}la'mt'gwidepxdek'* to paint myself

lū'^{e}xagwant'gwiapxde'k' to trap for myself — *han-se^{e}gwa'nt'gwiapxdek'* to paddle myself across

From non-reflexive verbs are derived:

ga-iwiapxde'k' my eating — *wūxiapxdā^{a}* his coming to get me

6. From transitives:

p!ala'xbiya to tell you a myth — *ī-gaxga'xgwia* to scratch one's self

ī-k'wā'^{a}k!wia to wake him — *ī-gi's·gis·ia*[2] to tickle him

ī-k'we'$^{e\varepsilon}$xiya to wake me (164.20) — *wayanagwia'* to run after him

dā^{a}-agania' to hear about it — *lō^{u}gwia'* to play with it

wa$^{\varepsilon}$-ī-dõxia to gather them — *dõmk'wia*[3] to kill him

The syntactical usage of verbal nouns of action is illustrated in the following examples:

hūli'nk'wat'k' k!emna'nk' he will make me tired (literally, my-tiredness he-will-make-it)

t!omõxā^{a}da wiyina'$^{\varepsilon}$n I help him kill (literally, his-killing [no object] I-aid-it)

ho'gwax gel-gulugwa'$^{\varepsilon}$n I like to run (lit., running I-like-it) (196.8)

a'nī$^{\varepsilon}$ yok!ōī nexde'k' he does not know what I said (literally, not he-knows-it my-saying)

xi-$^{\varepsilon}$ūgwia ga$^{\varepsilon}$a'l in order to drink water (literally, water-drinking for)

ba-i-k!iyi'^{e}k' al-xī'$^{\varepsilon}$xbiya ga$^{\varepsilon}$a'l he came to see you (literally, he-came seeing-you for)

[1] Infinitives in *-k'wa* seem sometimes to be formed from other Class I intransitives, e. g., *wisma'k'wa* TO MOVE; *haxa'k'wā^{a}* TO BURN (also *haxa'xgwā^{a}*).

[2] Umlauted from **ī-gi's·gas·ia*.

[3] *-k'wi-* here represents objective *-k'wa-* umlauted by infinitive ending *-(y)a* (see § 8). Similarly *s·ūmt'ia* TO BOIL IT 170.16 from *-t'aya*.

The normal method of expressing purpose, as the last two examples show, is by the use of an infinitive followed by the general locative postposition *ga$^{\epsilon}$a'l* TO, AT, FOR. The infinitive, as its inclusion of the object shows, preserves its verbal character almost completely, and may itself govern another infinitive:

k!emnia' al-we'k!alk'wā^{a} to make it shine (literally, to-make-it its-shining)

Not a few infinitives have become more or less specialized as regular nouns, though it is extremely doubtful if the transparently verbal origin of such nouns is ever lost sight of. Such nouns are:

p!ala'k'wa myth 50.4; 172.17

t'ge^{e}mt'ga'mxgwa darkness

gina'x passage-way 176.9

ye'l$^{\epsilon}$sgwix sweat (cf. *ye'l$^{\epsilon}$sgwade^{e}* I shall sweat [140.1])

ts·!i'p'na'x speech, oration (cf. *ts·!i'p'nan* I shall make a speech to them [146.11])

sana'k'wa fight, battle

ts·!e^{e}ma'x noise (cf. *dā^{a}-ts!ēm-xde^{e}* I hear a big noise 90.21)

PARTICIPLES (§§ 75–78)

§ 75. General Remarks

Participles are either active or passive, and may be formed with considerable freedom from all verbs. They have not been found with incorporated pronominal objects, the active participles being more adjectival than verbal in character, while the passives naturally hardly allow of their incorporation. The passive participle is often provided with possessive affixes that correspond to the transitive subjects of the finite verb; the active participle, on the other hand, undergoes no modification for person, but, like any adjective, is brought in connection with a particular person by the forms of the copula *ei-* BE.

§ 76. Active Participle in *-t'*

This participle is formed by simply appending a *-t'*, one of the characteristic adjectival suffixes, to the verb-stem. Inferential and imperative *-p'-* of Class II intransitives disappears before this element (e. g., *se'nsant'* WHOOPING), but not the non-aoristic *-p'-*, which is characteristic (see § 42, 1) of some of the verbs of the same class; e. g., *sana'p'* FIGHTING (from **sana'p't'*). Participles in *-t'* never denote particular action, but regularly indicate that the action predi-

cated of a person is one that in a way marks him off from others, and that may serve as a characteristic attribute. Not infrequently, therefore, a *-t'-* participle has the value of a noun of agency; the fact, however, that it never appears with pronominal elements, but is always treated as an adjective, demonstrates its attributive, non-substantival character. It is possible to use it with a preceding nominal object, so that sentences may result that seem to predicate a single act definitely placed in time; yet an attributive shade of meaning always remains. For example, *wihin dõmt' eīt'e^{ɛ}* (literally, MY-MOTHER HAVING-KILLED I-AM) and *wihin t!omoma'^{ɛ}n* both mean I KILLED MY MOTHER, but with a difference. The latter sentence simply states the fact, the emphasis being on the act itself; the former sentence, on the other hand, centers in the description of the subject as a matricide, I AM ONE WHO HAS KILLED HIS MOTHER. The latter sentence might be a reply to a query like WHAT DID YOU DO? the former, to WHO ARE YOU?

Examples of *-t'* participles are:

*gwi-na'*t' how constituted, of what kind? (*gwi-* [how, where] + *na't'* [from *na-* do, act]) 14.4, 9, 10; 15.6
*ga-na'*t' of that kind, so in appearance 63.12; 192.7
wūnt' k!emẽ^{ɛ}n I make him old (cf. *wunūnt'e^{ɛ}* I grow old)
*t'gā^{a} haxa'*t' burnt field (not passive, but really=field that has at one time burned) 92.29
hẽlt' eīt'e^{ɛ} I know how to sing (literally, singing I am)
yap!a lohõnt' eīt'e^{ɛ} I have killed (many) people (literally, people causing [or having caused]-to-die I am)
*loho'*t' having died, dead 148.13
*hawa'x-xiwi'*t' (it is) rotting
xuda'mt' eīt'e^{ɛ} I am whistler
*ni'xa yi'l*t' having copulated with his mother (insulting epithet applied to Coyote) 86.5, 6, 16

Examples of participles with lost *-t'* have been given above (see § 18).

§ 77. Passive Participle in *-(a)k'^{w}, -i'k'^{w}*

Nominal participial forms in *-k'^{w}* of passive signification can be freely formed from all transitive verb-stems, the stem invariably undergoing palatalization (see § 31). The suffix *-k'^{w}* ordinarily requires a preceding connective *-a-* replaced, as usual, by an instrumental *-i-* in such passive participles as are derived from verb-forms themselves provided with *-i-*. Participles in *-ak'^{w}* tend to be accented on the

syllable immediately preceding the suffix, in which case an inorganic *-h-* generally appears before the *-a-*; *-hak'^{w}* is also regularly used with preceding fortis (see § 19). It is not unlikely that the suffix is organically *-hak'^{w}*, the *-ha-* implying continuity (see § 43, 5). Instrumental passives in *-ik'^{w}*, on the other hand, are generally accented, with raised pitch, on the *-i-* of the suffix. For example, *dūmhak'^{w}* (ALWAYS) KILLED OR STRUCK PERSON, but *wa-dū^{u}mi'k'^{w}* THING WITH WHICH ONE KILLS (literally, KILLED-WITH thing). Inasmuch as *-k'^{w}-* participles, differing in this respect from active participles in *-t'*, are distinctly nominal in character, they may be provided with possessive suffixes; e. g., *dūmhak'^{w}-dek'* MY STRUCK ONE. Forms thus arise which, like *-t'*-participles supplemented by forms of *ei-* BE, have independent predicative force. What we have seen to apply to *-t'*-participles, however, in regard to particularity of action, applies with equal if not greater force to predicatively used passives in *-k'^{w}*. While a sentence like *ī'daga t!omoma'n (dõmk'am)* THAT ONE WAS SLAIN, with finite passive, implies the fulfillment of a single act, a sentence whose predicate is supplied by a passive participle (like *ī'daga dūmhak'^{w}* THAT ONE IS [REGULARLY] SLAIN, STRUCK) necessarily refers to habitual or regularly continued activity: *ī'daga dūmhak'^{w}de'k'* THAT ONE IS MY (REGULARLY) STRUCK ONE thus approaches in signification the finite frequentative *ī'daga t!omo'amda^{ɛ}n* THAT ONE I (ALWAYS) STRIKE, but differs radically in signification from both *ī'daga t!omoma'^{ɛ}n* I KILLED THAT ONE and *ī'daga dõmt' eīt'e^{ɛ}* I AM ONE THAT HAS KILLED THAT ONE.

Examples of *-k'^{w}-* participles are:

*gwen-sgū'^{uɛ}t'*ôk'^{w} (those) with their necks cut off (21.2, 4, 5)
*xa-ī-sgī'^{iɛ}p'sgibi*k'^{w} (bodies) cut in two 21.2; 22.3
*(mī^{i}) gela'p'a*k'^{w} [1] something which is (already) twisted
*gūha*k'^{w} *na^{ɛ}ne'x* like something planted, sown
*wa^{ɛ}-ī-dūxi*k'^{w}*dek'* I have been gathering them (literally, my gathered ones)
*dal^{ɛ}-wa-p'ī't!i*k'^{w} (manzanita) mixed with (sugar-pine nuts) 178.5
*t'ān t'gwīl gūt'*ôk'^{w}*dā^{a}* squirrel has been burying (*gō^{u}d-*) hazelnuts (literally, squirrel hazel-nuts [are] his-buried-ones)[2]
*sēk'a*k'^{w}*de'k'* I (always) shoot (*sā^{a}g-*) him (literally, my shot one)
*mīla'sha*k'^{w}*dek'* I love her (literally, my loved one)

[1] Cf. *galaba'^{ɛ}n* I TWIST IT; *-a'-* above is inorganic, hence unpalatalized to *-e-*.

[2] *t'gwīl* (HAZEL-NUTS) is the grammatical subject; *gūt'ôk'^{w}dā^{a}* predicates the subject; *t'ān* (SQUIRREL) is outside the main core of the sentence, being merely in apposition with the incorporated *-dā^{a}* (HIS) of the nominal predicate.

As the last example shows, the indirective *-s-* of verbs with indirect object is preserved in *-hak'ʷ* participles (contrast *mīla't'-k'* HE LOVED HER [inferential]).

Participles of instrumental signification in *-i'k'ʷ* are freely employed to make up instrumental nouns, such as names of implements. Examples are:

dõᵘk'-sgū'ᵘt!ik'ʷ log-cut-with (=saw)
seᵉl-wa-seᵉla'mdik'ʷ black paint (writing)-therewith-painted (written) (=pencil)
ī-smi'lsmilik'ʷ (thing) swung (=swing)
dūk'ʷ-wa-sgū'ᵘt!ik'ʷ dress-therewith-cut (=scissors)
k!wāī-bāᵃ-sgēk'sgigik'ʷ grass-up-pitched-with (=pitchfork)
yap!a-wa-dõᵘmi'k'ʷ people-therewith-killed, e. g., arrow, gun
daᵉma'xau alᵉ-wa-xī'ⁱk!ik'ʷ far therewith-seen, e. g., telescope
mülmili'k'ʷ something to stir (mush) up with

It is interesting to note that forms in *-k'ʷ* may be formed from the third person possessive of nouns, chiefly terms of relationship. These are shown by the palatalized form of the stem to be morphologically identical with passive participles in *-k'ʷ*. Examples are:

Noun	Participle
ts·!ele'i his eye 86.7, 9	*ts·!ele'i*k'ʷ eye-having 27.9
ni'xa his mother 17.11; 126.7	*ni'xa*k'ʷ he has a mother
ma'xa his father 17.12; 126.6	*me'xa*k'ʷ he has a father
k'aⁱᵉlā'p'ik!ī his woman (178.8)	*k'eⁱᵉlè'p'ik!i*k'ʷ he has a wife 142.6
t!īⁱᵉlā'p'ik!ī her husband 46.1	*t!īⁱᵉlè'p'ik!i*k'ʷ she has a husband

Such forms in *-k'ʷ* may well be compared to English adjectives of participial form in *-ed;* e. g., LEFT-HANDED, FOUR-CORNERED. They may be further adjectivalized by the addition of *-at'* (see below, § 108); e. g., *me'xagwat'* FATHER-HAVING.

§ 78. Passive Participles in *-xap'* (*-sap'*)

Less common than passive participles in *-(a)k'ʷ* are certain forms in *-xap'* (*-sap'*), which, like the former, show a palatalized form of the stem, and seem to be identical in function with them. Like *-k'ʷ-* participles, again, they may be provided with possessive pronominal suffixes, though these belong to another scheme of endings:

gel-güla'k'ak'ʷ-de'k' my liked one, I like him (=*gel-güla'xab-at'k'*)
gel-güla'k'ak'ʷ-da they like him (=*gel-güla'xap'*)

Forms in *-xap'* are in particular use as names of articles of clothing. Examples are:

*gwen-wī'$^{i\varepsilon}$*xap' handkerchief, neckerchief 188.5 (cf. *gwen-wī'^{i}k!an* I shall wind it about my neck)
*dak'-wī'$^{i\varepsilon}$*xap' something wound about one's head
*xā^{a}-le'$^{e\varepsilon}$*sap' (=*-t!-xap'*) belt (cf. *xā^{a}-lā'^{a}t!an* I shall put it about my waist)
*gwen-p!īx*ap' pillow (cf. *gwen-p!īk'wan* I shall lie on pillow)
*ha-lū'$^{u\varepsilon}$*xap' shirt (cf. *ha-lō'^{u}k!^{w}in* I shall put on shirt)
*ha-ya-u-t'ge'n$^{\varepsilon}$*sap' (=*-ts!-xap'*) vest (cf. *ha-ya-u-t'ge'nts!an* I shall put it about my middle, ribs)
*sge'$^{e\varepsilon}$*xap' man's hat

NOUNS OF AGENCY (§§ 79-82)

§ 79. Introductory

Four suffixes have been found that are employed to form nouns of agency from verb-stems, *-$^{\varepsilon}$s*, *-sā^{a}*, *-sī^{i}*, and *-xi*. The first of these is more strictly verbal in character than the other three, being capable, unlike these, of incorporating the pronominal object. *-sā^{a}* and *-sī^{i}*, probably genetically related suffixes, are used apparently only with intransitive stems (including, however, such as are partly transitive in form, i. e., that belong to Class IV). *-$^{\varepsilon}$s* and *-xi* are used with both transitive and intransitive stems.

§ 80. Nouns of Agency in *-(a')$^{\varepsilon}$s*

This suffix is used to form agentives with more freedom than the others seem to be. The ending *-$^{\varepsilon}$s* is added directly to the verb-stem, with connective *-a'-* (instrumental *-i-*) if phonetically necessary. No examples have been found of agentives in *-$^{\varepsilon}$s* from intransitives of Class II. Examples are (49.4; 60.10):

hoida'$^{\varepsilon}$s dancer
he^{e}la'$^{\varepsilon}$s singer
p!ā^{a}ga'$^{\varepsilon}$s bather
yā^{a}da'$^{\varepsilon}$s swimmer
ts!a-wya'$^{\varepsilon}$s fast runner 138.2
ei-sā^{a}gwa'$^{\varepsilon}$s canoe paddler
hāpxi-t'ā^{a}ga'$^{\varepsilon}$s child-crier (= cry-baby)
xut'ma'$^{\varepsilon}$s whistler
k'aiwi'$^{\varepsilon}$ wa$^{\varepsilon}$-ī-dõxi$^{\varepsilon}$s one who gathers everything
xuma-k!emna'$^{\varepsilon}$s food-maker (=cook) 54.4
dõmxbi$^{\varepsilon}$s one who kills you
mala'ximi$^{\varepsilon}$s one who tells us

The last two examples show incorporated pronominal objects; the first personal plural object *-am-* is, as usual, followed by the connec-

tive *-i-*. The strongly verbal coloring of the agentive in *-ᵉs* is perhaps best indicated by its employment as a final clause. Examples of this use are:

ba-i-k!iyi'k'deᵉ al-xī'ⁱᵉxbiᵉs I came to see you (literally, as one-seeing-you)
meᵉ-gini'ᵉk' al-xī'ⁱᵉxiᵉs he came to see me
hoida'ᵉs di meᵉ-giniga'ᵗ' did you come to dance? (i. e., as dancer)
a'nīᵉ meᵉ-gini'k'deᵉ lõᵘᵉs· I did not come to play, as player 31.6 (cf. § 74 for another method of expressing this idea)

§ 81. Nouns of Agency in *-sīⁱ, -sāᵃ*

These, as already observed, are less distinctly verbal in force than the preceding. Some verbs have agentives in both *-ᵉs* and *-sāᵃ;* e. g., *heᵉla'ᵉs* and *hēlsāᵃ* SINGER. Not infrequently there is a distinct feeling of disparagement in a *-sāᵃ-* agentive as compared with one in *-ᵉs;* e. g., *hogʷa'ᵉs* GOOD RUNNER, but *ho'k'sāᵃ* ONE WHO ALWAYS RUNS (BECAUSE OF FEAR). Both of these suffixes are added directly to the stem without connecting vowel. If stressed, they have the falling accent. *-sāᵃ* is the regular agentive ending of Class II intransitives; *-p'-* is or is not retained before it under the same conditions as in the case of the participial *-t'* (see § 76).

Further examples of agentives in *-sīⁱ* and *-sāᵃ* are:

ī-heᵉgwa'k'ʷsīⁱ worker
da-lõsi liar (but non-disparaging *lõᵘᵉs* player)
ū'ⁱᵉs·'īⁱ (=*ū'ⁱᵉs·-s·ī'ⁱ*) *k!emēᵉn* I make him laugh (literally, laugher)
al-t'wāᵃp't'wa'p'sīⁱ blinker
al-t'wāᵃp't'wa'p'sāᵃ
xāᵃ-wīsāᵃ go-between (settler of feud) 178.11
dāᵃ-p!iya wīsāᵃ one going, dancing by side of fire (=medicine-man)
yims·ā'ᵃ (=*yims·-s·ā'ᵃ*) dreamer (=medicine-man)
waīsāᵃ big sleeper
eseũsāᵃ big sneezer
se'nsansāᵃ one knowing how to whoop
sana'p'sāᵃ one knowing how to fight
s·a's·ansāᵃ one always standing
s·ū'ᵉalsāᵃ one always sitting
nōts!adam yu'sāᵃ eᵉbik' we are neighbors (literally, neighboring-to-us being [stem *yu-*] we-are)
t!obaga'sāᵃ (= *-a's-sāᵃ*) *eīt'* you are always lying like dead

A few nouns in *-sīⁱ*, in which an agentive meaning can not well be detected, nevertheless doubtless belong here: *lōᵘsi'* PLAYTHING

(110.6,11) (cf. verb-stem *lō^{u}-* PLAY); less evidently, *le^{e}psi'* FEATHER 28.2; *ala'ksī^{i}* HIS TAIL (86.21, 23)

§ 82. Nouns of Agency in *-xi*

Only a few verbal derivatives in *-xi* have been obtained. They are:

al-hūyūxi (= *-x-xi*) hunter
ye^{e}xi' needle, awl (literally [?], biter [cf. verb-stem *ye^{e}g^{w}-* bite]) 122.8
gel-dula'xī^{i} eīt'e^{ɛ} I am lazy, one who is lazy
gel-he'i^{iɛ}xi stingy (cf. verb-stem *he^{iɛ}x-* be left over)
s·üm^{u}xi' paddle stirrer (cf. *s·ü^{u}m-t'a-* boil) (170.16)
eī t'gēlxī^{i} wagon (literally, canoe one-that-rolls)

§ 83. FORMS IN *-i'ya*

Two or three isolated verb-forms in *-i'ya*[1] have been found that appear to be of a passive participial character. There are not enough such forms available, however, to enable one to form an idea of their function. The few examples are:

t'gā^{a} (1) *haxani'ya* (2) *mī^{i}* (3) *al-t!aya'k'* (4) then (3) he discovered (4) a burnt-down (2) field (1) 92.26
yap!a (1) *dō^{u}mi'ya* (2) *^{ɛ}al-t!aya'k'* (3) he discovered (3) killed (2) people (1)

Both of these forms in *-i'ya*, it will be observed, are derived from transitive stems (*haxani'ya* from causative *haxa-n-* CAUSE TO BURN, BURN), and would seem to be best interpreted as attributive passives corresponding to the attributive actives in *-t'*. To these forms belongs probably also:

dī^{i}-he'liya (1) *wa-iwī'^{i}* (2) girl (2) who sleeps on a raised board platform (1) (literally, perhaps, up-boarded girl [cf. *he^{e}la'm* board]) 13.2

II. The Noun (§§ 84–102)

§ *84. Introductory*

Despite the double-faced character of some of the nominal derivatives of the verb-stem (e. g., the passive participles), there is formally in Takelma a sharp line of demarcation between denominating and predicative elements of speech. This is evidenced partly by the distinct sets of pronominal suffixes peculiar to noun and verb, partly by certain nominal elements appearing before the possessive affixes and serving, perhaps, to distinctly substantivize the stem. Only a

[1] Not to be confused with transitive infinitives in *-ia'*.

small number of stems have been found that can, without the aid of nominal (or verbal) derivative elements, be used as both nouns and verbs. Such are:

Noun	Verb
se'^{e}l black paint, writing	*se^{e}l-a'md-a^{e}n* I paint it
he'^{e}l song 106.7; (164.16)	*hēl* sing! (170.12)
liw-ā'^{a} naga'$^{i\varepsilon}$ he looked (perhaps = his-look he-did) 55.6	*liwila'u-t'e^{e}* I looked (152.17) (imperative *līū* 14.11; [60.2])
dūk'^{w} shirt 96.16	*dī-dūk'^{w}* wear it! (55.9; 96.16)
t!ü'l gambling-sticks in grass-game	*t!ü'lt!al-siniba^{e}* let us gamble at grass-game 31.9
xle'$^{e\varepsilon}$p' dough-like mass of camass or fat	*ī-xlep!e'xlib-i$^{\varepsilon}$n* I mash it into dough (94.11)
xān urine	*xala'xam-t'e$^{\varepsilon}$* I urinate

A number of cases have been found of stem + suffix serving as noun and verb (e. g., *wü^{ü}lha'm* MENSTRUAL "ROUND" DANCE 100.10, 16: *wü^{ü}lha'mt'e^{e}* I SHALL HAVE FIRST COURSES 162.7, 8); but in these it is probable that the verb is a secondary derivative of the noun. Even in the first two examples given above, a difference in pitch-accent serves to distinguish the noun from the verb-stem: *hēl-gulu'k'^{w}* HE WILL SING, but *he'^{e}l gel-gulu'k'^{w}* HE LIKES, DESIRES, A SONG. The use of a stem as both noun and verb in the same sentence may lead to such cognate accusative constructions as the English TO LIVE A LIFE, DREAM A DREAM:

se'^{e}l-se^{e}la'msi write to me!
dū^{u}gwī'^{i} dī-dū^{u}gwa'nk' she shall wear her skirt 55.9

If we analyze noun forms like *t!ibagwa'nt'k'* MY PANCREAS and *dā^{a}nxde'k'* MY EAR, we find it necessary to consider five more or less distinct elements that go to make up a noun with possessive suffix, though all of these but the radical portion of the word may be absent.

First of all we have the stem (*t!iba-; dā^{a}-*) which may or may not be similar in form to a verbal base, and which occurs either as an absolute noun unprovided with a pronominal suffix (body-part nouns and terms of relationship, however, do not ordinarily appear in their naked stem-form), or as an incorporated noun; e. g., *t!iba-wēsin* I AM PANCREAS-DEPRIVED, MY PANCREAS HAS BEEN TAKEN FROM ME.

Appended to the stem are the purely derivational or formative elements of the noun. Takelma is characterized rather by a paucity than an abundance of such elements, a very large proportion of its nouns being primitive, i. e., non-derivative, in character. Of the

two nouns that we have chosen as types *dā^{a}nxde'k'* shows no formative element in the proper sense of the word, while the *-gw-* of *t!ibagwa'nt'k'* is such an element (cf. from stem *līu-* LOOK *liu-gw-ax-de'k'* MY FACE).

More characteristic of the Takelma noun than derivational suffixes is a group of elements that are never found in the absolute form of the noun, but attach themselves to it on the addition of a pronominal suffix or local pre-positive. The *-n-* and *-(a)n-* of *dā^{a}nxde'k'* and *t!ibagwa'nt'k'*, respectively, are elements of this kind (cf. *ha-da-n-dē* IN MY EAR; *ha-t!ibagw-an-dē* IN MY PANCREAS), also the *-a-* of *dana't'k'* MY ROCK (cf. *ha-dan-a'* IN THE ROCK [from *da'n* rock]), and the *-u* of *ha-t'gāū* IN THE EARTH 33.7 (from *t'gā* EARTH). The function of these elements, if they have any and are not merely older formative suffixes that have become crystallized in definite forms of the noun, is not at all clear. They are certainly not mere connective elements serving as supports for the grammatical suffixes following, as in that event it would be difficult to understand their occurrence as absolute finals in nouns provided with pre-positives; nor can they be plausibly explained as old case-endings whose former existence as such was conditioned by the preceding pre-positive, but which now have entirely lost their original significance, for they are never dependent on the pre-positive itself, but vary solely with the noun-stem:

ha-dan-a' in the rock; *dā^a-dan-a'* beside the rock; *dal-dan-a'* among the rocks; *dan-a'-t'k'* my rock; *dak'-dan-a-dē* over my rock (with constant *-a-* from *da'n* rock 16.12)

ha-gwā^{a}l-a'm in the road 62.6; *dā^a-gwā^{a}l-a'm* along the road; *gwā^{a}l-a'm-t'k'* my road (96.8); *dak'-gwā^{a}l-am-dē* over my road (48.6, 8) (with constant *-am-* from *gwān* road 148.7)

For want of a better term to describe them, these apparently non-significant elements will be referred to as noun-characteristics. Not all nouns have such characteristics:

ha-gela'm in the river (from *gela'm* river 21.14) as opposed to *xā^a-gulm-a'n* among oaks (from *gulu'm* oak 22.10, 11)

Whether such nouns were always without them, or really preserve them, but in a phonetically amalgamated form, it is, of course, impossible to decide without other than internal evidence.

A fourth nominal element, the pre-pronominal *-x-*, is found in a large number of nouns, including such as possess also a characteristic

(e. g., *dā^a-n-x-de'k'*) and such as are not provided with that element (e. g., *sal-x-de'k'* MY FOOT); a large number, on the other hand, both of those that have a characteristic (e. g., *t!ibagw-a'n-t'k'*) and of those that lack it (e. g., *bēm-t'ā^a* HIS STICK) do without the *-x-*. A considerable number of nouns may either have it between the characteristic and the pronominal ending or append the personal endings directly to the characteristic, no difference in signification resulting. In such doublets, however, the pronominal suffixes belong to different schemes:

bilg-an-x-de'k' and *bilg-a'n-t'k'* my breast
se^{e}ns-i-x-da'^{ɛ} and *se^{e}ns-i'-^{ɛ}t'* your hair
wā^{a}d-i'-x-da (92.24) and *wā^{a}d-ī'^{i}* his body 146.6

The characteristic *-a-* never tolerates a following *-x-*. Where doublets occur, these two elements seem to be mutually equivalent: *ey-a'-t'k'* (112.6) and *ei-x-de'k'* MY CANOE (from *eī* CANOE 114.3). Such doublets, together with the fact that nothing ever intervenes between it and the personal suffix, make it possible that this *-x-* is a connective element somewhat similar in function to, and perhaps ultimately identical with, the connective *-x-* of transitive verbs. This, however, is confessedly mere speculation. What chiefly militates against its interpretation as a merely connective element is the fact of its occurrence as a word-final in phrases in which no possessive element is found:

dagax wô'k'i^ɛ head without
ha-dā^a-n-x molhi't' in-ear red (i. e., red-eared) 14.4; 15.13

If the local phrase involves a personal pronominal element, the *-x-* disappears:

dā^a-n-x-de'k' my ear, but *ha-da-n-dē* in my ear

This treatment marks it off sharply from the noun-characteristics.

Fifthly and lastly, in the integral structure of the noun, comes the possessive pronominal suffix (the first person singular of terms of relationship, however, is a prefixed *wi-*). The following tabulated summary shows the range of occurrence of the various elements of the noun:

1. ***Stem.*** Occurs as absolute noun (*gwān*), or incorporated in verb (*dā^a-*).
2. ***Derivative element.*** Occurs as ending of absolute form of noun whose stem appears only in incorporation: *t!iba'-k'^{w}* pancreas.

3. ***Noun characteristic.*** Occurs with all increments of absolute form of noun; i. e., with pronominal suffix (*gwā^{a}l-a'm-t'k'*), with pre-positive (*ha-gwā^{a}l-a'm*), and with pre-positive and pronominal element (*ha-gwā^{a}l-am-dĕ*).

4. ***Pre-pronominal -x-.*** Occurs with pronominal suffix (*dā^{a}-n-x-de'k'*) and pre-positive (*ha-dā^{a}-n-x*), but never with pre-positive and pronominal element.

5. ***Pronominal suffix.*** Occurs in two distinct forms: one for nouns without pre-positives (*dā^{a}-n-x-de'k'*), and one for nouns accompanied by pre-positive (*ha-da-n-dĕ*).

A tabulated analysis of a few typical words follows:

Stem	Derivative	Characteristic	Pre-pronominal	Pronominal	Meaning
(*ha-*) *wax.-*[1]		*g-a'n*			in the creek
le'-	*k'w-*	*an-*		*t'k'*	my anus
da-uyā'a-	*k'w.-*			*de'k'*	my medicine-spirit
dāa-		*n-*	*x-*	*de'k'*	my ear
bo'k'd-	*an.-*		*x-*	*de'k'*	my neck
k'a$^{i\epsilon}$-	*lā'p'a.-k!-*	*i-*		*t'k'*	my woman
lōu-	*s·i'.-*			*t'k'*	my plaything
sge'^{es}-	*xab.-*	*a-*		*t'k'*	my hat
li'u-	*gw-*		*ax-*	*de' k'*	my face
xāa-		*ha'm-*		*da*	on his back
ts·!e'k'ts·!ig-		*i-*	*x-*	*de'k'*	my backbone
(*ha-*) *yaw-*		*a-*		*dĕ*	in my ribs
dōum.-		*a'l-*		*t'k'*	my testicles
xāal-(*xān.*)		*a'm-*		*t'k'*	my urine
ī-		*ū-*	*x-*	*de'k'*	my hand }
(*ha$^{\epsilon}$-*) *ī-*		*ū-*		*dĕ*	in my hand }

[1] A point (.) shows the absolute form of the word.

1. *Nominal Stems* (§§ 85, 86)

§ 85. GENERAL REMARKS

The stem is in a very large number of cases parallel in form to that of a verbal base (e. g., with *da'n* ROCK, *s·om̃* MOUNTAIN, *mĕx* CRANE, cf. *tlan-* HOLD, *s·om-* BOIL, *he^{e}m-* WRESTLE). An extensive number of noun-stems, however, are apparently amplifications of a simpler monosyllabic base, and have all the outward appearance of an aorist stem in the verb. It becomes, then, not only possible, but fundamentally important, to classify noun-stems into types that seem, and ultimately doubtless are, entirely analogous in form to corresponding verbal types. The noun-stem *wili-* HOUSE, for example, can be conceived of as formed from a base *wil-* in the same manner

as the aorist *naga-* is formed from the verb-stem *nāᵃg-* SAY TO SOME ONE. Similarly, the noun *yele'x* BURDEN-BASKET is phonetically related to a hypothetical base **yelx-*, as is the aorist *leme-k!-* to the non-aorist *lem-k!-*. A small number of nouns appear in two forms, one corresponding to the aorist stem, the other to the verb-stem of a verb: *gulu'm* OAK, but with characteristic *-(a)n-*: *gulm-an-*(the non-aorist *gula'm* with inorganic *-a-* also occurs). Similarly, *yulu'm* and *yula'm* EAGLE. In such variable nouns we have a complete morphologic analogy to Type 2 (or 3)) verbs like aorist *xudum-* WHISTLE, verb-stem *xut'm-* (with inorganic *-a-*: *xudam-*). In both *gulu'm* and *xudum-* the *-m-* is almost certainly a suffixed element. It must be carefully noted, however, that, while in the verb we very often have both the aorist stem and the base (as verb-stem) in actual existence, in the case of nouns we rarely can go beyond the stem as revealed in an absolute or incorporated form. It is true that sometimes a hypothetical noun-base phonetically coincides with a verbal base, but only in the minority of cases can the two be satisfactorily connected. Thus, *yut!-*, abstracted from *yūt!u'n* DUCK, is very probably identical with the *yut!-* of aorist *yut!uyad-* SWALLOW GREEDILY LIKE HOG OR DUCK. On the other hand, little is gained by comparing the *yul-* of *yulu'm* EAGLE with the *yul-* of aorist *yuluyal-* RUB; the *p!iy-* of *p!i'yin* DEER and *p!i'yax* FAWN with the aorist *-p!iyin-(k'wa-)* LIE ON PILLOW (cf. *gwen-p!ĭxap'* PILLOW), unless the deer was so called, for reasons of name-taboo, because its skin was used for the making of pillows (or, more naturally, the reverse);[1] the *way-* of *waya'* KNIFE with *way-* SLEEP; or the noun-stem *yaw-* RIB (occurring as *ya-u-* when incorporated) with the verb-stem *yaw-* (*yiw-*) TALK. It is not justifiable to say that noun-stems of apparently non-primitive form are necessarily amplified from the bases that seem to lie back of them (e. g., *wili-* from *wil-; yulu-m* from *yul-*), but merely that there is a strong tendency in Takelma for the formation in the noun of certain typical sound-groups analogous to those found in the verb.

§ 86. TYPES OF STEM FORMATION

Though it is probably impossible to duplicate all the various types of aorist and verb stem found in the verb, most of those that are at all frequent occur also in the noun.

[1] Improbable, however, if aorist *p!eyen-* LIE and *p!iyin-k'wa-* LIE ON PILLOW are radically connected (see § 31).

1. The most characteristic type of noun-stem in Takelma is the monosyllabic group of consonant (less frequently consonant-cluster) + vowel (or diphthong) + consonant (less frequently cluster). This type may be considered as corresponding to the normal monosyllabic verb-stem. Out of a very large number of such primitive, underived noun-stems are taken a selection of examples.

Occurring as naked stems only when incorporated:

s·in- nose
dā^{a}- ear
gel- breast
gwen- neck
dag- head
s·al- foot
gwel- leg
yaw- rib
ī- hand
xā^{a}- back
de^{e}- lips, mouth
ha- woman's private parts

Occurring as absolute nouns:

nõx rain 90.1
p!ī fire 62.10; 78.13
bē sun 54.3; 122.15; 160.20
bēm tree, stick 25.5; 48.7
xi' water 15.1; 57.14
t'gã land 49.12; 73.9
t'gwa' thunder 55.8
p!ā'^{a}s snow 90.2, 3; 152.16
p'i'm salmon 17.12; 30.10
lãn salmon-net 31.2; 33.4
mãl salmon-spear shaft 28.7
t'gwa'n slave 13.12
gwãn trail 148.7
būs fly
dēl yellow-jacket 73.7, 10
mēx crane 13.1
xe'm raven 162.8, 12
s·ēm duck 55.2; 166.10
sēl kingfisher
mēl crow 144.9; 162.7
yãk'^{w} wildcat 42.1; 46.9
xa'mk' grizzly bear 106.14
dīp' camass 108.18; 124.12
k!wāī grass 31.8
hīx roasted camass 178.4
õ'^{u}p' tobacco 194.1
k!wal̃ pitch 88.13; 158.9
yūp' woman's basket-cap 178.3
mo'x grouse
t'gwe'lk'^{w} rat (sp.?)
t'ī'^{i}s gopher 78.4, 7
sbīn beaver 112.1; 166.12
s·ūx bird 22.4; 166.10
da'n rock 13.6; 16.12
lā'^{a}p' leaves
s·ūx venison 16.6; 55.1
xīn mucus
la'' excrement 122.2
t'ga'm elk 158.4; 196.6
t!ãk' mussel 26.7
bõ^{u}n acorn-hopper
xo' fir 24.10; 54.6
hãlk' panther 42.1
bīk'^{w} skunk 164.2
t'ãn squirrel 94.2, 4
s·omt̃ mountain 43.6
xãn urine
dõ^{u}m testicles 130.20
dõ^{u}m spider
hōū jack-rabbit 108.8
ga'l^{e} bow
hāī cloud 13.3
bīū grasshopper 92.28, 29
xni'k' acorn dough 16.12
gūī thick brush 71.1
t'gwīl hazelnut 116.5, 11, 14

Occurring generally with possessive suffix:

ma-[1] / *ham-* father 17.12; 70.7; 158.3

ni- / *hin-* mother 17.9; 76.10, 13; 172.17

gū^{u}x- wife 13.2; 45.3; 64.5; 142.12

t!ī^{i}- male, husband 45.14; 126.14

nī^{i}- teats 30.14 (*ni'* found as absolute form 130.9)

p!ā^{a}n- liver 120.15 (*p!ān* found as absolute form 57.9, 13)

wā^{a}d- body 92 24; 130.24; 146.6

xū^{u}l- brains

se^{e}n- skin

delg- buttocks 45.9; 72.10; 94.15

bilg- breast

k'ū^{u}b- hair 24.8; 162.4

a-is- property 23.2; 154.13

These lists might be very greatly increased if desired. It will be noticed that a considerable number of the nouns given are such as are generally apt to be derivative or non-primitive in morphology.

In regard to accent monosyllabic nouns naturally divide themselves into two classes:—those with rising or raised accent, embracing the great majority of examples, and those with falling accent. Of the latter type a certain number owe their accent to a glottal catch of the stem. Besides *ga'l^{ɛ}*, already given above, may be cited:

t'go'^{iɛ} leggings
k!a'l^{ɛ}s sinew 27.13; (28.1)
p!e'^{e}l^{ɛ} basket-plate 168.15
k'o'^{ɛ}x tar-weed seeds 26.15

These offer no special difficulty. There is a fairly considerable number of monosyllabic nouns, however, in which the falling accent can not be so explained, but appears to be inherently characteristic of the nouns. Besides *ō'^{u}p'*, *p!ā'^{a}s*, *t'ī'^{i}s*, and *lā'^{a}p'*, may be mentioned:

ne'el song 106.7
se'el black paint, writing
ge'^{e}t' xerophyllum tenax
ye'^{e}t' tears
wā'^{a}s bush (sp.?) 25.12
t!e'^{e}k'^{w} yellowhammer 90.18; 194.15
t'be'^{e}k'^{w} shinny-ball
a'lk' silver-side salmon
p!e'^{e}s (with derivative *-s?* see § 87, 8) flat rock on which acorns are pounded 74.13; 75.2; 118.17

For two of these nouns (*he'el* and *se'el*) the etymology is obvious. They are derived from the verb-stems *he^{e}l-* SING and *se^{e}l-(amd-)* PAINT; it may well be that the falling accent here characterizes substantives of passive force (THAT WHICH IS SUNG, PAINTED). Possibly *lā'^{a}p'* and *ō'^{u}p'* are to be similarly explained as meaning THOSE THAT

[1] Most nouns of relationship show monosyllabic stems; none can be shown to be derivative in character.

ARE CARRIED (BY BRANCHES) and THAT WHICH IS DUG UP[1] (cf. aorist stems *lā^{a}b-* CARRY and *ō^{u}b-* DIG UP).

2. A very considerable number of noun-stems repeat the vowel of the base, corresponding to aorist stems of Type 2 verbs. Such are:

wi'li house 13.1; 14.8; 192.6
ts·ɬi'xi dog
moxo` buzzard 105.23
sgi'si coyote 13.1; 70.1; 108.1
sgwini` raccoon
k!a'ma spit for roasting 170.17
yap!a` person 14.12; 96.2; 128.2
yana` acorn 15.16; 16.9; 58.9
gwit!i-(n)- wrist
k`aba- son 23.2; 128.5; 138.14
xaga- maternal aunt
xli'wi war-feathers 110.18
waya` knife 73.3; 144.20; 172.12
goyo` shaman 47.11; 142.7; 188.7
wō^{u}p!u-(n)- eyebrows

With probably derivative final consonant are:

lege`m- kidney
lap`ām frog 102.10; 196.3
yulu`m eagle 77.2; 122.15; 164.8
gulu`m oak 22.10
k`ūlūm fish (sp.?)
loxo`m manzanita 126.17; 178.5
yūt!u`n white duck 55.5
p!i'yin deer 17.1; 42.2; 54.2
ga'k!an ladder 176.8
daga`n turtle
ts·!axā'^{a}n blue-striped lizard
wigīn red lizard
li'bin news 108.20; 194.9
yi'win speech 126.10; 136.12
ts·!amāl mouse 102.10; 104.9; 142.4
s·imi`l dew
(k!el)mehel-ī'^{i} basket for cooking 178.4

Here again it will be observed that the rising or raised accent is the normal one for the second syllable of the stem. But here also a well-defined, if less numerous, group of noun-stems is found in which the repeated long vowel bears a falling accent. Examples are:

t`gwalā'^{a} hooting owl 194.9
hū^{u}s·ū'^{u} chicken-hawk 142.6
s·ühū'^{u} quail 70.2, 5; 71.4
t!ibis·ī'^{i} ant 74.4; 75.5
da-uyā'^{a} shaman's spirit (? from *dawy-* fly) 164.14
mayā'^{a}-k`^{w}- orphan 154.5

Compare also *t!onō'^{u}s·* below (Type 3); *ts·!ilī'^{i}k!-* and *t`bele'^{ɛ}s* (Type 3) owe their falling accent to the presence of a glottal catch.

Very remarkable is the stem formation of the noun *t!üxū'i* DRIFTWOOD 75.5. It is evidently formed from the verb-stem *dō^{u}x-* (aorist stem *t!oxox-*) GATHER (WOOD) according to aorists of Type 7b, at the same time with vowel ablaut (cf. theoretic *t!üxū-xi* HE GATHERS ME) and falling accent, perhaps to give passive signification (see § 86, 1); its etymologic meaning would then be THAT WHICH IS GATHERED. No other noun of similar stem formation has been found.

[1] If this etymology of *ō'^{u}p'* is correct, Pit River *ōp'* TOBACCO must be borrowed from Takelma.

3. It is not strictly possible to separate noun-stems corresponding to aorists of verbal Type 2 from those that are to be compared with aorists of Type 3. The doubt that we found to exist in the verb as to the radical or suffixal character of certain consonants is present also in regard to the final consonant of many dissyllabic nouns. The following nouns with repeated vowel show final consonants that are not thought to be elements of derivation. If this view is correct, they are to be compared with Type 3 aorist stems.

libīs crawfish 30.2
nihwi'k'^{w} black bear 116.1; 118.1
ts·!ilī'^{l}k!- elbow
s·idib-i- (house) wall 176.4, 9
lep!ēs cat-tail rushes
t'bele'$^{\varepsilon}$s pine-nuts
t!ewēx flea
s·elēk'^{w} pestle 56.1
s·ülũk' cricket
t!onō'^{u}s· humming-bird (perhaps with derivative *-s*)
ü'lük!- hair 27.1; 140.6; 158.1
deges[1]*-* sifting basket-pan 196.13
k!aba's porcupine-quills
t'gwaya'm lark 22.1; 160.3
hülũn ocean 60.8; 154.14
oho'p' black shells (sp.?) 55.9
mot!o'p' seed-beater
yuk!um- salmon-tail 198.9
dugu'm baby 126.9

4. Analogous to aorist stems of Type 4 verbs (e. g., *yewei-*) are a few nouns with repeated vowel and following *-i-* to form a diphthong. Of such nouns have been found:

ts·!elei- eye 27.8; 86.7; 92.20
k'wedei- name 100.21
k!elei- bark 54.6
k!oloī storage basket 61.5; 138.17
da-k!olo'i-da-x- cheek
maha'i (adjective) large 196.10 (cf. plural *mahmī* 130.4 for base)

That the final *-i-* of these nouns is not an added characteristic, but an integral part of the noun-stem, is proven by the facts that no examples have been found of vowels followed by noun-characteristic *-i-* (ordinarily *-n-* or *-m-* is employed), and that *ts·!elei-* has been found incorporated in that form.

5. A few nouns are found that show a repeated initial consonant; they may be compared to Type 10 aorist stems. Examples are:

se^{e}ns- hair 136.28 (cf. *se^{e}n-* skin)
lü^{ü}l- throat 25.2 (? cf. aorist *lomol* choke)
bo'p' alder (94.17)
ts·!u'n^{s}s (*ts·!unts·!-*) deer-skin cap embroidered with woodpecker-scalps

[1] Absolute form *dega's* 178.4; cf. *yula'm* 164.3 alongside of *yulu'm* 77.8?

suñs thick, deep (of snow) 90.3

bebe'-n rushes

bū^{u}b-a'n arm 23.2, 4; (172.4)

sēns bug (sp.?)

ts·!e'n^{e}s· (*ts·!ents·!-*) wild-rose berry 92.23

bãp' seeds (sp.?) (34.1; 79.9; 94.19)

ts·!a'$^{i\epsilon}$s·[1] bluejay (onomatopoetic) 22.14; 102.10; 166.11

bel̃p'[2] swan 102.10; 104.14

Here may also be mentioned *k!a'mak!ā^{a}* HIS TONGS (also *k!a'mā^{a}*).

6. Reduplicated nouns are not frequent in Takelma, particularly when one considers the great importance of reduplication as a grammatical device in the verb. Examples corresponding in form to Type 12 aorists (i. e., with *-a-* [umlauted to *-i-*] in second member) are:

t'gwi'nt'gwin-i- shoulder (also *t'gwī'^{i}nt'gw-i-*)

gelga'l fabulous serpent (cf. aorist *gelegal-amd-* tie hair into top-knot 172.3)

sī^{i}nsa'n decrepit old woman

yūk'ya'k'w-a (place name) 188.13

t'ga'lt'gil-i- belly

ts·!e'k'ts·!ig-i- backbone 112.4; 198.6

gi'xgap' medicine, poison (irreg.) 188.12

gwi'sgwas chipmunk

p'ā^{e}t'p'id-i- salmon-liver (with dissimilated catch) 120.19,20

bõ^{u}t'bid-i- orphans (also *bõt'ba*)

Also *wa-iwī'^{i}* GIRL 55.7; 96.23 doubtless belongs here; the *-wī'^{i}* of the second syllable represents a theoretic *-wi'y*, umlauted from *-wa'y*, the falling accent being due to the inorganic character of the repeated *a*. A very few nouns repeat only the first consonant and add *a*, leaving the final consonant unreduplicated. Such are:

ba'k'bā^{a} red-headed woodpecker (onomatopoetic) 92.2, 6

ha'$^{\epsilon}$k'ā^{a} (=**hak!-hā^{a}*) goose 102.10; 106.2, 5

bõt'bā^{a} orphan 122.1, 5

A few nouns, chiefly names of animals, show complete duplication of the radical element without change of the stem-vowel to *-a-* in the second member. This type of reduplication is practically entirely absent in the verb. Examples are:

ts·!e'$^{\epsilon}$ts·!e$^{\epsilon}$ small bird (sp.?)

dalda'l dragon-fly 21.1; 28.6

p'abā'^{a}p' manzanita-flour

al-k!ok!o'k' (adj.) ugly-faced 60.5

bobo'p' screech-owl 194.1

t'ga'nt'gan fly (upper dialect)

Even all of these are not certain. Those with radical *-a-* might just as well have been classified with the preceding group (thus

[1] That *-s·* is felt to be equivalent to *-ts·!* is shown by Bluejay's song: *ts·!a'its·!ī-ā gwa'tca gwatca* 104.7.

[2] *bel-* is felt as the base of this word, cf. Swan's song *beleldō+ wa'inha* 104.15, which shows reduplication of *bel-* like aorist *helel-* of *hel-* SING.

dalda'l may be very plausibly connected with aorist *t!alat!al-* from *t!alal-*, non-aorist *dā^{a}ldal* from *dā^{a}l-* CRACK); while *p'abā'^{a}p'* and *bobo'p'* may, though improbably, show Type 1 reduplication (*p'ab-ā^{a}b-* like *p!ab-ab-* CHOP). This latter type of reduplication seems, however, to be as good as absent in the noun (but cf. *sgwôgwô'k'^{w}* ROBIN; *mele'lx* BURNT-DOWN FIELD 92.27 may be morphologically verbal, as shown by its probably non-agentive *-x*). The fullest type of reduplication, that found exemplified in the aorists of Type 13 verbs, has not been met with in a single noun.

2. *Noun Derivation* (§§ *87, 88*)

§ 87. DERIVATIVE SUFFIXES

The number of derivative suffixes found in the noun, excluding those more or less freely employed to form nominal derivatives from the verb-stem, are remarkably few in number, and, for the most part, limited in their range of application. This paucity of live word-forming suffixes is, of course, due to a great extent, to the large number of nominal stems in the language. The necessity of using such suffixes is thus greatly reduced. The various derivational affixes found in the Takelma noun will be listed below with illustrative examples.

1. ***t'(a)-***. This is the only derivational prefix, excluding of course such considerably individualized elements as the body-part prefixes of the verb, found in Takelma. It is employed to form the words for the female relationships corresponding to ELDER BROTHER and YOUNGER BROTHER.

wãxa his younger brother 54.1, 5 — *t'awãxa* his younger sister 55.2
wi-^{s}obī my elder brother 46.10 — *wi-t'obī* my elder sister (55.14)

2. ***-lā'p'a(k!-)***. This suffix is found only in a number of nouns denoting ranks or conditions of persons; hence it is not improbable that it was originally a separate word meaning something like PERSON, PEOPLE. That it is itself a stem, not a mere suffix, is shown by its ability to undergo ablaut (for *-lè'p'i-* see § 77). *-k!-* is added to it in forms with possessive or plural affix. For example, from *t!ī$^{i\varepsilon}$lā'p'a* 178.7 MALE, HUSBAND are formed *t!ī$^{i\varepsilon}$lā'p'ik!it'k'* MY HUSBAND (142.7) and *t!ī$^{i\varepsilon}$lā'p'ak!an* HUSBANDS, MEN (130.1, 7). The fact that the stem preceding *-lā'p'a* appears also as a separate word or with other elements indicates that words containing *-lā'p'a* may be best considered as compounds.

Examples are:

*t!ī$^{i\varepsilon}$*lā′p'a male, husband 178.7 (cf. *t!ī^{i}-* husband, male)
*k'a$^{i\varepsilon}$*lā′p'a woman 25.9, 12; 108.4, 5 (cf. *k'a$^{i\varepsilon}$s·o′k'da* girl who has already had courses)
*mologo*lā′p'a old woman 26.14, 16; 56.3 (cf. *mologo'l* old woman 168.12; 170.10)
*bõ^{u}t'bā^{a}*lā′p'a*k!an* orphans (cf. *bõt'ba* orphan and *bõ^{u}t'bid-i-t'k'* my orphaned children)
*lomt!ī^{i}*lā′p'a*k!an* old men 128.11; 130.1 (cf. *lomt!ī'^{i}* old man 24.11; 126.19)
*os·ō^{u}*lā′p'a poor people

3. ***-k'***. A number of place-names with suffixed *-k'* have been found:

*La′mhi*k' Klamath river
*Sbīn*k' Applegate creek (cf. *sbīn* beaver)
*Gwen-p'uñ*k' village name 114.14 (cf. *p'u'n* rotten 140.21)
*Ha-t!õn*k' village name
*Dak'-t'gamī*k' village name (cf. *t'ga'm* elk)
*Gel-yãl*k' village name 112.13; 114.8 (cf. *yãl* pine)
*Somolu'*k'[1] village name
*Dal-dani'*k' village name (cf. *da'n* rock)

4. ***-a′$^{\varepsilon}$(n)***. Nouns denoting PERSON COMING FROM are formed by adding this suffix to the place-name, with loss of derivative *-k'*. Examples are:

*Ha-gwā^{a}*la′$^{\varepsilon}$ person from Ha-gwãl, Cow creek
*Lamhī^{i}*ya′$^{\varepsilon}$ person from La′mhik', Klamath river
*Sbī^{i}*na′$^{\varepsilon}$ person from Sbīnk', Applegate creek
Dal-sa′lsana$^{\varepsilon}$ person from Dal-salsañ, Illinois river
Dī$^{\varepsilon}$-lōmiya′$^{\varepsilon}$ person from Dī$^{\varepsilon}$-lōmī
Gwen-p'u′na$^{\varepsilon}$ person from Gwen-p'uñk'
Dal-daniya′$^{\varepsilon}$ person from Dal-dani'k'
S·omola′$^{\varepsilon}$ person from S·omolu'k' (see footnote)
*Ha-t!ō^{u}*na′$^{\varepsilon}$ person from Ha-t!õnk'
*La-t'gā^{a}*wa′$^{\varepsilon}$ person from La-t'gāū, uplands 192.14
Dak'-t'gamiya′$^{\varepsilon}$ person from Dak'-t'gamīk'
*Ha-t'ī^{i}*la′$^{\varepsilon}$ person from Ha-t'īl
*Gel-yā^{a}*la′$^{\varepsilon}$ person from Gel-yãlk'
Dak'-ts!ā^{a}wana′$^{\varepsilon}$ person from dak'-ts!ā^{a}wa'n, i. e., above the lakes (= Klamath Indian)
Dak'-ts!ā^{a}mala′$^{\varepsilon}$

[1] The *-u'-* of this word is doubtless merely the pitch-accentual peak of the *-l-*, the *-u-* resonance of the liquid being due to the preceding *-o-*. The word is thus to be more correctly written as *Somolk'* (similarly, *wulx* ENEMY was often heard as *wulu'x*), as implied by *S·omola′$^{\varepsilon}$* ONE FROM SOMOLK'. In that event *s·omol-* is very probably a frequentative in *v+l* (see § 43, 6) from *s·omī* MOUNTAIN, and the place-name means VERY MOUNTAINOUS REGION.

Dā^{a}-gelma'$^{\varepsilon}$n person from Dā^{a}-gela'm, Rogue river (= Takelma Indian)

Dī-dalama'$^{\varepsilon}$n person from Dīdalam̄, Grant's Pass

Judging from the material at hand, it seems that *-a'$^{\varepsilon}$n* is used only when the place-name ends in *-m*, though the ease with which *-a'$^{\varepsilon}$n* may be heard as *-a'$^{\varepsilon}$* (see first footnote § 60) detracts from the certainty of this generalization.

5. ***-gw-.*** This element occurs as a suffix in a number of terms relating to parts of the body. Examples are:

t!iba'k'^{w} pancreas 47.17; *t!ibagw-a'n-t'k'* my pancreas (47.5, 6, 7, 13) (incorporated *t!iba-* 46.1, 9)

li'ugw-ax-dek' my face (cf. verb-stem *līu-* look)

da$^{\varepsilon}$madagw-a'n-t'k' my shoulder

da-uyā'^{a}k'^{w}-dek' my medicine-spirit (incorporated *da-uyā^{a}-* 164.14)

*le'*k'w-*an-t'k'* my rectum (cf. *la'* excrement 122.2)

ma'p!agw-a-t'k' my shoulder-blade

6. ***-(a)n-*** (or ***-m-, -l-***). There are so many nouns which in their absolute form end in *-(a)n* or its phonetic derivatives *-(a)m-* and *-(a) l-* (see § 21) that there is absolutely no doubt of its suffixal character, despite the impossibility of ascribing to it any definite functional value and the small number of cases in which the stem occurs without it. The examples that most clearly indicate its non-radical character will be conveniently listed here:

he^{e}la'm board 176.5 (cf. *dī^{i}-he'liya* sleeping on board platform 13.2)

ts·!ela'm hail 152.12, 16 (cf. verb-stem *ts·!el-* rattle)

*p!i'yi*n deer 13.10; 42.2 (cf. *p!i'yax* fawn 13.11; 49.11)

*yi'wi*n speech 126.10; 138.4 (cf. verb-stem *yiw-* talk)

*li'bi*n news 194.9 (? cf. verb-stem *laba-* carry)

yūt!u'n white duck 55.5 (cf. verb-stem *yut!-* eat greedily)

*do'lk'*am-*a-* anus (also *do'lk'-i-* as myth form 106.4, 8)
*do'lk'*im-*i-*
*do'lk'*in-*i-* 106.6, 9

xdān eel (cf. reduplicated *hā$^{\varepsilon}$-xdā'^{a}xdagwa$^{\varepsilon}$n* I throw away something slippery, nastily wet [49.7])

s·ugwa'n root basket 124.5 (cf. *s·ugwidī* it lies curled up like bundled roots or strings)

*dan ye'^{e}wald-*in-*ī^{i}* rocks returning-to-them, myth name of Otter 160.10, 13 (cf. verb-stem *ye^{e}w-ald-* return to)

Other examples, etymologically untransparent, will be found listed in § 21. The difference between this derivational *-n* (*-m*) and

noun-characteristic *-n-* (*-m*) lies in the fact that the former is a necessary part of the absolute form of the word, while the latter appears only with grammatical increments. Thus the *-am* of *he^{e}la'm* BOARD can not be identified with the *-am* of *ha-gwā^{a}la'm* IN THE ROAD, as *gwā^{a}la'm* has no independent existence. The exact morphologic correspondent of *gwā^{a}l-am-* is *he^{e}lam-a-* (e. g., *he^{e}lam-a'-t'k'* MY BOARD). A doubt as to the character of the *-n-* can be had only in words that never, or at least not normally, occur without possessive suffix:

lege'm-t'k' my kidneys
wō^{u}p!u'n-t'k' my eyebrows [1]

7. **-a.** There are a rather large number of dissyllabic nouns or noun-stems with final *-a*, in which this element is to outward appearance an integral part of the radical portion of the word. The number of instances in which it occurs, however, is considerable enough to lead one to suspect its derivational character, though it can be analyzed out in an even smaller number of cases than the suffix *-n* above discussed. The most convincing proof of the existence of a suffix *-a* is given by the word *xu'ma* FOOD, DRY FOOD, 54.4; 188.1, a derivative of the adjective *xu'm* DRY 168.15 (e. g., *p'im xu'm* DRIED SALMON; cf. also *xümü'k'de^{s}* I AM SATED [132.1]). Other possible examples of its occurrence are:

yola' fox (? cf. verb-stem *yul-* rub) 70.1, 4, 5; 78.2, 3, 9
mena' bear 72.3; 73.2, 3, 4, 5; 106.7, 10
p!elda' slug 105.25
noxwa' small pestle
t'e'lma small pestle 62.1; 116.18, 19; 118.2
ma'xla dust 172.3; 184.5, 9
k!eda' grass for string (sp.?)
t!ela' shinny-stick (? cf. verb-stem *t!èu-* play shinny)
t!ela' louse (? cf. verb base *t!el-* lick) 116.3, 6, 7, 8, 11
t!iba- pancreas 46.1, 9; 49.7
ela- tongue (characteristic *-a-*?)
dola' old tree 24.1
yana' oak 22.11; 168.1, 2, 3, 6, 7 (cf. *yangwa's* oak sp.; with *-gwas* cf. perhaps *al-gwa's-i-* yellow)

It is of course possible that some of the dissyllabic nouns in *-a* listed above (§ 86, 2) as showing a repeated vowel (e. g., *ya'p!a*) really belong here.

[1] These seem to be parallel to *gwit!i'n-t'k'* MY WRIST, in which *-n-*, inasmuch as it acts as the equivalent of the characteristic *-ū-* (cf. *gwit!iūxde'k'* MY WRIST with *iūxde'k'* MY HAND), is itself best considered characteristic element.

8. **-s.** This element is in all probability a derivational suffix in a fairly considerable number of words, as indicated particularly by the fact of its frequent occurrence after a consonant. Examples are:

p!e'ᵉs mortar-stone fastened in ground (cf. verb-stem *p!è-* lie) 74.13; 120.17
la'ps blanket (? cf. base *lab-* carry on shoulder) 98.14, 15, 19, 21
p!e'ns squirrel
gāms (adj.) blind 26.14 (? cf. *gomha'k'ʷ* rabbit)
bēls moccasin
k!u'ls worm (? cf. verb-stem *gōᵘl-*, aorist *k!olol-* dig)
yōls steel-head salmon (? cf. *yola'* fox)
būls moss 43.16; 44.1; 47.15
bami's sky 79.7 (cf. verb-prefix *bam-* up)
bāls (adj.) long 14.5; 15.12, 15 (? cf. *da-balni'-xa* [adv.] long time)

Also some of the dissyllabic nouns in *-s* with repeated vowel listed above (§ 86, 3) may belong to this set.

A few other stray elements of a derivational aspect have been found. Such are:

-ax in *p!i'yax* fawn 13.11; 16.8; 17.1, 2 (cf. *p!i'yin* deer)
-xi[1] in *bomxi'* otter 13.5; 17.13; 154.13; 156.14; *ū'ᵉxi* seed-pouch; *hāᵃpxi'* child 13.8, 13 (cf. *hāp'da* his child 98.13 and *hāᵃp'-* incorporated in *hāᵃp'-k!emna'ᵉs* Children-maker 172.15)
pluralic *-x-* in *hāpxda* his children 16.3; 118.1, 14
-x- varies with *-s-* in adjective *hāpsdi* small; *hāᵃpxi' hapsdi* little children 30.12

A large number of dissyllabic and polysyllabic nouns still remain that are not capable of being grouped under any of the preceding heads, and whose analysis is altogether obscure:

bāxdis wolf 13.1; 16.10; 17.10
domxa'u Chinook salmon
yīk'a't' red deer
yiba'xam small skunk
bixa'l moon 196.1
k!a'nak!as basket cup (probably reduplicated and with derivative *-s*)

§ 88. COMPOUNDS

Of compounds in the narrower sense of the word there are very few in Takelma. Outside of personal words in *-lā'p'a*, which we have suspected of being such, there have been found:

lomt!ī'ⁱ old man 24.11, 12; 126.19 (cf. *t!ī'ⁱ-* male)
k'aⁱᵉs·o'k'da girl who has had courses (cf. *k'aⁱᵉlā'p'a* woman)

[1] Cf. *-xi* above, § 82.

Independent nouns may, however, be juxtaposed without change of form to make up a descriptive term, the qualifying noun preceding:

hapxi-t!ī'^{i}t'ā^{a} child male-person (=boy) 14.1, 6; 17.3, 6; 156.10
hapxi-wa-iwī'^{i} child female-person (=girl) 29.7; 30.1; 71.3
hapxi-t'ā^{a}ga'^{ɛs} child crier (=cry-baby)
da'n mologo'l rock old-woman 170.10, 15, 20; 172.1
dan hapxi-t!ī'^{i}t'ā^{a} rock boy 17.8
dan wī^{i}lī'^{i} his rock knife 142.20
gwa's· wili brush house (for summer use) 176.14
yãx wili graveyard house 14.8, 9; 15.5, 6
wilī^{i} he^{ɛ}la'm house boards 176.5
xamk' wa-iwī'^{i} grizzly-bear girl 124.10; 130.6, 7, 26
mena dap!ā'la-ut'an bear youths 130.11
yap!a goyo' Indian doctor 188.12

Examples of compounds in which the first element is modified by a numeral or adjective are:

wili ha^{ɛ}īgo' yap!a' house nine people (=people of nine houses) 150.16
yap!a ^{ɛ}alt'gu'^{iɛ}s· goyo' person white doctor (=white doctor) 188.11

A certain number of objects are described, not by a single word, but by a descriptive phrase consisting of a noun followed by an adjective, participle, or another noun provided with a third personal possessive suffix. In the latter case the suffix does not properly indicate a possessive relation, but generally a part of the whole or the fabric made of the material referred to by the first noun. Such are:

lasgu'm-īūxgwa't' snake handed (=lizard) 196.4
t'gwīl ts·!ī'^{i}k'da hazel its-meat (=hazel-nut)
t'gwa he^{ɛ}lamā'^{a} thunder its-board (=lumber) 55.8, 10
p!iyin sge'^{ɛɛ}xabā^{a} deer its-hat (not deer's hat, but hat of deerskin)
p!iyin ts·!u'nts·!ī^{i} deer its-cap-embroidered-with woodpecker-scalps
k'ai mologolā'p'axdā^{a} what its-woman (=what kind of woman?) 122.3
wi'li gwala' houses many (=village)
ts·lī'xi maha'i dog big (=horse)
p'im s·inīxdɑ salmon its-nose (=swallow) (perhaps so called because the spring run of salmon is heralded by the coming of swallows)
mena' ^{ɛ}alt'guna'px bear + ? (=dormouse [?])
xi'lam sebe't' dead-people roasting (=bug [sp.?])[1] 98.13, 15
p'un-yi'lt' rotten copulating-with (=Oregon pheasant)

[1] See Appendix B, note 2 of first text.

§ 89. 3. *Noun-Characteristics and Pre-Pronominal -x-*

As noun-characteristics are used four elements: *-(a)n* (including *-am* and *-al*), *-a-*, *-i-*, and *-u-*. Although each noun, in so far as it has any noun-characteristic, is found, as a rule, to use only one of these elements, no rule can be given as to which of them is to be appended to any given noun. Nouns in suffixed *-(a)n*, or *-(a)m*, for example, are found with characteristic *-i-* (*bū^{u}bin-i-* [from *bū^{u}-ba'n* ARM]), *-a-* (*he^{e}lam-a-* [from *he^{e}la'm* BOARD]), *-(a)n* (*gulm-an-* [from *gula'm* OAK]), and without characteristic (*bo'k'dan-x-dek'* MY NECK [from *bo'k'dan* 15.12, 15]).

1. **-(*a*)*n*.** Examples of this characteristic element are:

gwit!i-n- wrist (cf. variant *gwit!ī-ū-*)
t!ibagw-an- pancreas 45.15; 46.5 (absolute *t!iba'k'^{w}* 47.17)
da^{ɛ}madagw-an- shoulder
lek'w-an- rectum
dā^{a}-n-*x*- ear 14.4; 15.13 (incorporated *dā^{a}-*)
ts!ā^{a}w-an- lake, deep water 59.16 (absolute *ts!āū* 162.9; 166.15)
gulm-an- oak (absolute *gula'm*)
bob-in- [1] alder 94.17 (absolute *bo'p'*)

Its phonetic reflexes *-al* and *-am* occur in:

s·ō^{u}m-al- mountain 124.2; 152.2 (absolute *s·om̃* 43.6; 122.16)
dō^{u}m-al- testicles 130.8 (absolute *dō^{u}m* 130.20)
ts!ā^{a}m-al- (in *Dak'-ts!ā^{a}mala'^{ɛ}* Klamath Indian, parallel to *Dak'-ts!ā^{a}wana'^{ɛ}*)
gwā^{a}l-am- trail 48.6, 8; 96.8, 9 (absolute *gwãn* 148.7)
xā^{a}l-am- urine (absolute *xãn*)

-am- is also found, though without apparent phonetic reason, in *xā^{a}-ham-* BACK (incorporated *xā^{a}-*). Certain nouns add *-g-* before taking *-an-* as their characteristic:

wax-gan- creek (absolute *wa'x*)
del-gan-(x-) anus 45.9; 72.10; 94.15
bil-gan-(x-) breast
gel-gan- breast (cf. variant *gel-x-*)

2. **-*a*-.** More frequently occurring than *-(a)n-* is *-a-*, examples of which are:

dana- rock (absolute *da'n* 17.8; *dal-am-* as possible variant in place-name *Dī-dala'm* over the rocks [?])
ey-a- canoe 112.6; 114.5, 13; 156.2 (cf. variant *ei-x-*)
t'gwan-a- slave (absolute *t'gwa'n* 13.12)
he^{e}lam-a- board 55.8, 10 (absolute *he^{e}la'm* 176.5)
yō^{u}k!w-a- bone 186.1; 196.17 (absolute *yõ^{uɛ}k'^{w}*)

[1] This word happened to occur with following emphatic *yā'a*, so that it is probably umlauted from *bob-an-*.

p'im-a- salmon 31.1; 32.4 (absolute *p'i'm* 30.10, 11; 31.3.)
do'lk'am-a- rectum (cf. variant *do'lk'im-i-*)
ma'p!agw-a- shoulder blade (absolute *ma'p!ak'^{w}*)
yaw-a- rib 194.10 (incorporated *ya-u-*)
xiy-a- water 58.6; 156.19; 162.13 (absolute *xi'* 162.7, 8, 14)
p!iy-a- fire 118.4; 168.19 (absolute *p!ī* 88.12, 13; 96.17)

All nouns in *-xab-* take *-a-* as their characteristic, e. g., *sge'^{es}xab-a-t'k'* MY HAT (from *sge'^{es}xap'* HAT)

3. **-*i*-.** Examples of nouns with *-i-* as their characteristic are:

dū^{u}gw-i- shirt 13.4; 96.26; 192.4 (absolute *dūk'^{w}* 96.16)
bū^{u}bin-i- arm 31.4; 172.4, 5, 6 (absolute *bū^{u}ba'n* 23.2, 4, 9)
t'gwi'nt'gwin-i- shoulder
ts·!ugul-i- rope (cf. absolute *ts·!ūk'*)
k'ū^{u}b-i- hair, skin 24.8; 160.6
ülük!-i- hair 27.1, 4; 126.11; 136.20; 158.1; 188.4, 5; 194.7.
k!alts!-i- sinew 28.1 (absolute *k!a'l^{ɛ}s* 27.13)
bā^{a}b-i- seeds (sp.?) 34.1; 79.9; 94.19 (absolute *bãp'*)
k!elw-i- basket bucket 170.14, 16, 18, 19 (absolute *k!e'l* 186.17)
mā^{a}l-i- spear-shaft 156.1 (absolute *mãl* 28.7, 9, 10)
dū^{u}l-i- spear-point (absolute *dūl* 28.8, 9; 156.19, 20)
lü^{ü}l-i-(*x*-) throat 25.2
mū^{u}l-i- lungs
t!egilix-i- skull 174.3
t'galt'gil-i-(*x*-) belly
ts·!ek'ts·!ig-i-(*x*-) backbone 112.4
ham-i- father 158.3 (e. g., *ham-i'-^{ɛ}t'* your father, but *wi-ha'm* my father 138.19)

A number of terms of relationship show an *-i-* not only in the second person singular and plural and first person plural but also, unlike *ham-i-* FATHER, in the first person singular, while the third person in *-xa*(*-a*) and the vocative (nearly always in *-ã*) lack it. They are:

wi-k'abaī my son (23.2, 3)	:	*k'aba'*-xa his son 138.16
wi^{ɛ}-obī my elder brother (46.10)	:	*o'p*-xa his elder brother 48.3; 62.2
wi-t'obī my elder sister	:	*t'o'p*-xa his elder sister 55.14; 56.6
wi-k!a'si my maternal grandparent 14.2; (15.12)	:	*k!a's*-a his maternal grandparent 16.1, 2; (154.18)
wi-xdāī my paternal uncle	:	*xdã*-xa his paternal uncle
wi-hasi' my maternal uncle	:	*ha's*-a his maternal uncle
wi-t'adi' my paternal aunt 22.14	:	*t'a'd*-a his paternal aunt (63.9; 77.14)
wi-xagaī my maternal aunt	:	*xaga'*-xa his maternal aunt
wi-ts!aī my (woman's) brother's child 22.1; 23.8, 10; my (man's) sister's child 148.19; 150.4	:	*ts!a'*-xa her brother's child; his sister's child

Still other terms of relationship have an *-i-* in all forms but the vocative. It is probable, though not quite so certain for these nouns, that the *-i-* is not a part of the stem, but, as in the preceding group, an added characteristic element. Such nouns are:

	Vocative
gamdi'-xa his paternal grandparent (170.21; 188.13)	*gamdã*
siwi'-xa her sister's child; his brother's child	*siwã*
wak'di'-xa his mother's brother's son 77.6; 88.14; (188.9)	*wak'dã* 77.4
t!omxi'-xa[1] his wife's parent	*t!omxã*
lamts!i'-xa her brother's wife	*lamts!ã*
yidi'-xa her husband's sister	*yidã*
nanbi'-xa his brother's wife; his wife's sister	*nanbã*
ximni'-xa his relative by marriage after linking member has died	*ximnã*

The *-i-* has been found in the vocative before the *-ã* (but only as a myth-form) in *obiyã* O ELDER BROTHER! 59.3; 62.4 (alongside of *obã*), so that it is probable that the vocative *-ã* is not a mere transformation of a characteristic vowel, but a distinct element that is normally directly appended to the stem. Other examples of myth vocatives in *-ã* appended to characteristic *-i-* are *ts!ayã* O NEPHEW! 23.1 (beside *ts!ã*) and *wô'k'dia'* O COUSIN! 88.14, 15 (beside *wak'dã*). The stem *ham-* with its characteristic *-i-* is used as the vocative: *hamī* O FATHER! 70.5; 71.7; also O SON! Quite unexplained is the not otherwise occurring *-i-* in the vocative of *mot'-* SON-IN-LAW: *mot'ia'* 166.6, 7. As already noted (see § 88, 2), nouns in *-lā'p'a* regularly take an *-i-* after the added *-k!-* of possessive forms: *-lā'p'ik!-i-*.

4. ***-u-***. Only a few nouns have been found to contain this element as their characteristic. They are:

ī-ū-x- hand 58.2; 86.13 (incorporated *ī-*)
gwit!ī-ū-x- wrist[2] (cf. variant *gwit!i-n-*)
ha-u-x- woman's private parts 108.4; 130.8 (incorporated *ha-*)
t'gā-u- earth, land 55.3, 4; 56.4 (absolute *t'gã* 73.9, 11, 13)
-t!omxa'u wife's parent (cf. *t!omxi'xa* his wife's parent 154.16; 164.19; see footnote, sub 3).

[1] The first person singular shows *-u* as characteristic: *wi-t!omxa'u*.

[2] It is highly probable that this word has been influenced in its form by *īūx-* HAND, which it resembles in meaning, if it is not indeed a compound of it.

The pre-pronominal element *-x-* is in some words appended directly to the stem or stem + derivational suffix; in others, to one of the noun-characteristics *-(a)n*, *-i*, and *-u* (never *-a*). A considerable number of words may or may not have the *-x-* after their characteristic; a few show variation between *-a-* and *-x-;* and but a very small number have *-x-* with or without preceding characteristic (e. g., *gel-x-*, *gel-gan-*, and *gel-gan-x-* BREAST). Examples of *-x-* without preceding characteristic are:

dag-ax- head[1] 90.12, 13; 116.8; 188.4, 5 (incorporated *dak'*-)
sal-x- foot 120.18 (incorporated *sal-*)
gwel-x- leg 15.15; 86.18; 122.10; 160.17 (incorporated form *gwel-*)
de^{e}-x- lips (incorporated *de*^{e}-) 186.18
gwen-ha-u-x- nape (incorporated *gwen-ha-u-*)
ei-x- canoe (absolute *eī*)
dī^{ɛ}*mo*-x- hips (incorporated *dī*^{ɛ}*mo-*)
liugw-ax- face
bok'dan-x- neck (absolute *bo'k'dan*)
hā^{a}*n*-x-[2] brothers 136.7

Rather more common than nouns of this type seem to be examples of *-x-* with preceding characteristic, such as have been already given in treating of the noun-characteristics. A few body-part nouns in *-x-* seem to be formed from local third personal possessive forms (*-da*); e. g., *dī'*^{ɛ}*alda-x-dek'* MY FOREHEAD from *dī'*^{ɛ}*alda* AT HIS FOREHEAD (but also *dī*^{iɛ}*a'l-t'k'* with first personal singular possessive ending directly added to stem or incorporated form *dī*^{iɛ}*al-*); *da-k!olo'ida-x-dek'* MY CHEEK is evidently quite parallel in formation. Body-part nouns with pre-pronominal *-x-* end in this element when, as sometimes happens, they occur absolutely (neither incorporated nor provided with personal endings). Examples of such forms follow:

haūx woman's private parts 130.19
da'gax head
yū'k!alx teeth 57.4
dayawa'nt!ixi ^{ɛ}*īū'x* other hand 86.13
gwelx dayawa'nt!ixi other leg 86.18

[1] *-ax-* contains inorganic *-a-*, and is not to be analyzed as characteristic *-a-* + *-x-* (parallel to *-i-* + *-x-*). This is shown by forms in which *-x-* regularly disappears; e. g., *dak'-dē* OVER ME (not **dag-a-dē* as parallel to *-s'in-i-dē*).

[2] Perhaps with pluralic *-x-* as in *hā*^{a}*p-x-* CHILDREN, p. 225.

4. *Possessive Suffixes* (§§ 90–93)

§ 90. GENERAL REMARKS

The possessive suffixes appended to the noun embrace elements for the first and second persons singular and plural and for the third person; the form expressing the latter is capable of further amplification by the addition of an element indicating the identity of the possessor with the subject of the clause (corresponding to Latin *suus* as contrasted with *ēius*). This element may be further extended to express plurality. Altogether four distinct though genetically related series of possessive pronominal affixes are found, of which three are used to express simple ownership of the noun modified; the fourth is used only with nouns preceded by pre-positives and with local adverbial stems. The former set includes a special scheme for most terms of relationship, and two other schemes for the great mass of nouns, that seem to be fundamentally identical and to have become differentiated for phonetic reasons. None of these four pronominal schemes is identical with either the objective or any of the subjective series found in the verb, though the pronominal forms used with pre-positives are very nearly coincident with the subjective forms found in the future of Class II intransitives:

ha-wilidē in my house, like *s·a's·ant'e*^{e} I shall stand
ha-wilī'^{i}*da* in his house, like *s·a's·ant'ā*^{a} he will stand

The following table gives the four possessive schemes, together with the suffixes of Class II future intransitives, for comparison:[1]

	Terms of relationship	Scheme II	Scheme III	With pre-positives	Future intransitives II
Singular:					
First person . . .	*wi-*	*-dĕk'*	*-'t'k'*	*-dē*	*-de*^{e}
Second person . . .	*-'ɛt'*	*-de*^{ɛ}	*-'ɛt'*	*-da*^{s}	*-da*^{s}
Third person . . .	*-xa, -a*	*-da*	*-', -'t'*	*-'da*	*-da*
Plural:					
First person . . .	*-da'm*	*-da'm*	*-da'm*	*-da'm*	*-(p')igam*
Second person . . .	*-ɛt'ban*	*-daba*^{ɛ}*n*	*-'ɛt'ban*	*-daba*^{ɛ}*n* *-'ɛt'ban*	*-daba*^{s}
Singular reflexive:					
Third person . . .	*-xagwa, -agwa*	*-dagwa*	*-'t'gwa*	*-'dagwa* *-'t'gwa*	
Plural reflexive:					
Third person . . .	*-xagwan, -agwan*	*-dagwan*	*-'t'gwan*	*-'dagwan* *-'t'gwan*	

[1] A complete comparative table of all pronominal forms is given in Appendix A.

It will be observed that the main difference between the last two schemes lies in the first person plural; the first scheme is entirely peculiar in the first person singular and third person. The first person plural possessive suffix (*-da'm*) resembles the endings of the subjective future of the same person (*-iga'm, -anaga'm*) in the falling accent; evidently there is a primary element *-a'm* back of these various endings which has amalgamated with other suffixes. As seen from the table, reflexive suffixes exist only for the third person. The plural reflexive in *-gwan* has often reciprocal significance:

wu'lxdagwan their own enemies (=they are enemies)

The suffixes of the first and second person plural may also have reciprocal significance:

wulxda'm e^{e}bi'k' we are enemies (lit., our enemies we are) cf. 180.13

§ 91. TERMS OF RELATIONSHIP

ham- (*ma-*) FATHER, *hin-* (*ni-*) MOTHER, *k!as-* MATERNAL GRANDPARENT, and *beyan-* DAUGHTER may be taken as types of the nouns that form this group.[1]

Singular:				
First person	*wiha'm*	*wihi'n*	*wik!asi'*	*wibeya'n*
Second person	*hami'^{e}t'*	*hi'n^{e}t'*	*k!asi'^{e}t'*	*beya'n^{e}t'*
Third person	*ma'xa*	*ni'xa*	*k!a'sa*	*beya'n*
Plural:				
First person	*hamida'm*	*hinda'm*	*k!asida'm*	*beyanda'm*
Second person	*hami'^{e}t'ban*	*hi'n^{e}t'ban*	*k!asi'^{e}t'ban*	*beya'n^{e}t'ban*
Singular reflexive:				
Third person	*ma'xagwa*	*ni'xagwa*	*k!a'sagwa*	*beya'nt'gwa*
Plural reflexive:				
Third person	*ma'xagwan*	*ni'xagwan*	*k!a'sagwan*	*beya'nt'gwan*
Vocative	*hamī*	*hindē* / *s·nā*	*k!asā*	*hindē* / *s·nā*

The first two of these are peculiar in that they each show a double stem; the first form (*ham-, hin-*) is used in the first and second persons, the second (*ma-, ni-*) in the third person. Despite the phonetically symmetrical proportion *ham-* : *ma-* = *hin-* : *ni-*, the two words are not quite parallel in form throughout, in that *hin-* does not show the characteristic *-i-* found in certain of the forms of *ham-*.

[1] Out of thirty-two terms of relationship (tabulated with first person singular, third person, and vocative in American Anthropologist, n. s., vol. 9, pp. 268, 269) that were obtained, twenty-eight belong here.

Of the other words belonging to this group, only that for FRIEND shows, or seems to show, a double stem: *wik!ūᵘya'm* MY FRIEND and *k!ū'yam* O FRIEND! 31.6, 8; 32.4, 6 but *k!ūᵘya'pxa* HIS FRIEND 190.2, 4 and *k!ūyaba'ᵉt'* (with inorganic rather than characteristic *a*) YOUR FRIEND 198.2. Irregular is also *wi-k!ōᵘxa'* MY SON'S WIFE'S PARENTS: *k!ōᵘxa'm-xa* HIS SON'S WIFE'S PARENTS 178.9, in which we have either to reckon with a double stem, or else to consider the *-m-* of the latter form a noun-characteristic. Other terms of relationship which, like *hin-*, append all the personal endings without at the same time employing a characteristic are:

wāᵃ- younger brother 42.1; 64.4 (also *t'awāᵃ-* younger sister 58.1, 5; 188.10)
k!eᵉb- husband's parent
wayau- daughter-in-law ([?] formed according to verb-type 11 from *way-* sleep) 56.8, 9
s·iyāᵉp'- woman's sister's husband *or* husband's brother
hasd-[1] man's sister's husband *or* wife's brother 152.22

k!ūiya {*m-*, *b-*} friend 180.13; 196.19; 198.2

beyan- DAUGHTER 13.2; 70.1, 4; 118.1, 4 belongs, morphologically speaking, to the terms of relationship only because of its first personal singular form; all its other forms (the vocatives really belong to *hin-*) are built up according to Scheme III.

As far as known, only terms of relationship possess vocative forms, though their absence can not be positively asserted for other types of nouns. The great majority of these vocatives end in *-ã*, which, as in *wã* O YOUNGER BROTHER! may be the lengthened form with rising accent of the final vowel of the stem, or, as in *k!asã* O GRANDMOTHER! 16.3, 5, 6; 17.2; 154.18 added to the stem, generally with loss of the characteristic *-i-*, wherever found. *wayau-* and *s·iyāᵉp'-*, both of which lack a characteristic element, employ as vocative the stem with rising accent on the *a-* vowel: *wayaũ* O DAUGHTER-IN-LAW! and *s·iyãᵉp'* O BROTHER-IN-LAW! (said by woman). This method of forming the vocative is in form practically equivalent to the addition of *-ã*. *s·nã*[2] MAMMA! and *haik!ã* O WIFE! HUSBAND! are vocatives without corresponding noun-stems provided with pronominal suffixes. *beyan-* DAUGHTER and *k'aba-* SON, on the other hand, have no vocative

[1] *wiha'st'* MY WIFE'S BROTHER is the only Takelma word known that terminates in *-st'*.

[2] Inasmuch as there is hardly another occurrence of *s·n-* in Takelma, it is perhaps not too far-fetched to analyze *s·nã* into *s·-* (cf. second footnote, p. 8) + *nã* (vocative of *ni-* in *ni'xa* HIS MOTHER).

derived from the same stem, but employ the vocative form of MOTHER and FATHER respectively. Of other vocatives, *k!ū'yam*[1] O FRIEND! 31.6, 8; 32.4, 6 is the bare stem; *hamĩ* 70.5; 71.7, the stem with added characteristic *-i-*; *hindẽ* O MOTHER! DAUGHTER! 56.7; 76.10, 13; 186.14 is quite peculiar in that it makes use of the first personal singular ending (*-dẽ*) peculiar to nouns with possessive suffix and preceding pre-positive. Only two other instances of a nominal use of *-dẽ* without pre-positive or local adverb have been found: *mo't'e*^{e} MY SON-IN-LAW! (as vocative) 164.19; and *k'wi'naxdẽ* MY FOLKS, RELATIONS, which otherwise follows Scheme II (e. g., third person *k'wi'naxdā*^{a}).

The normal pronominal suffix of the third person is *-xa; -a* is found in only four cases, *k!a'sa* HIS MATERNAL GRANDPARENT, *ha'sa* HIS MATERNAL UNCLE, *t'a'da* HIS PATERNAL AUNT, and *ha'sda* HIS BROTHER-IN-LAW. The first two of these can be readily explained as assimilated from **k!a'sxa* and **ha'sxa* (see § 20, 3); **t'adxa* and **hasdxa*, however, should have become **t'a'sa* and **ha'sa* respectively. The analogy of the first two, which were felt to be equivalent to stem + *-a*, on the one side, and that of the related forms in *-d-* (e. g., *t'adã* and *hasdã*) on the other, made it possible for *t'a'da* and *ha'sda* to replace **t'a'sa* and **ha'sa*, the more so that a necessary distinction in form was thus preserved between *ha'sa* HIS MATERNAL UNCLE and *ha'sda* (instead of **ha'sa*) HIS BROTHER-IN-LAW.

The difference in signification between the third personal forms in *-xa* and *-xagwa* (similarly for the other pronominal schemes) will be readily understood from what has already been said, and need not be enlarged upon:

ma'xa wā^{a}*-himi't'* he spoke to his (some one else's) father
ma'xagwa wā^{a}*-himi't'* he spoke to his own father

There is small doubt that this *-gwa* is identical with the indirect reflexive *-gwa* of transitive verbs with incorporated object. Forms in *-gwan* seem to refer to the plurality of either possessor or object possessed:

k'aba'xagwan their own son *or* his (her) own sons
eɪxdagwan their own canoe *or* his own canoes

The final *-n* of these forms is the indefinite plural *-an* discussed below (§ 99). Plural (?) *-gwan* is found also in verb forms (144.12; 150.24).

[1] *k!ūyam-* is perhaps derived, by derivational suffix *-(a)m*, from verb-stem *k!ōuy-* GO TOGETHER WITH ONE.

§ 92. SCHEMES II AND III

As examples may be taken *dagax-* HEAD, which follows Scheme II, and *wili-* HOUSE, *dana-* ROCK, *t!ibagwan-* LIVER, and *xāᵃham-* BACK, which follow Scheme III.

Singular:					
1st person	*da'gaxdek'*	*wili't'k'*	*dana't'k'*	*t!ibagwa'nt'k'*	*xāᵃha'mt'k'*
2d person	*da'gaxdeᵉ*	*wili'ᵉt'*	*dana'ᵉt'*	*t!ibagwa'nᵉt'*	*xāᵃha'mᵉt'*
3d person	*da'gaxda*	*will'i*	*danā'ᵃ*	*t!ibagwa'n*	*xāᵃha'm*
Plural:					
1st person	*da'gaxdam*	*wilida'm*	*danada'm*	*t!ibagwa'ndam*	*xāᵃha'mdam*
2d person	*daga'xdabaᵉn*	*wili'ᵉt'ban*	*dana'ᵉt'ban*	*t!ibagwa'nᵉt'ban*	*xāᵃha'mᵉt'ban*
Singular reflexive:					
3d person	*daga'xdagwa*	*wili't'gwa*	*dana't'gwa*	*t!ibagwa'nt'gwa*	*xāᵃha'mt'gwa*
Plural reflexive:					
3d person	*daga'xdagwan*	*wili't'gwan*	*dana't'gwan*	*t!ibagwa'nt'gwan*	*xāᵃha'mt'gwan*

A third person plural *-dan* also occurs, as in *dũmhak'ʷdan* HIS SLAIN ONES OR THEIR SLAIN ONE 180.2.

Scheme II is followed by the large class of nouns that have a pre-pronominal *-x-*, besides a considerable number of nouns that add the endings directly to the stem. Noun-characteristics may not take the endings of Scheme II unless followed by a *-x-* (thus *-a'nt'k'* and *-anxde'k'; -i't'k'* and *-ixde'k'*). Examples of Scheme II nouns without preceding *-x-* are:

a-is·de'k' my property (though *-s·-* may be secondarily derived from *-s·x-* or *-tx-*) 23.2, 3; 154.18, 19, 20; 158.4
mo't'ek' my son-in-law (152.9) (incorporated *mot'-*)
se'ᵉlt'ek' my writing, paint (absolute *se'ᵉl*)
he'ᵉlt'ek' my song (164.16; 182.6) (absolute *he'ᵉl* 106.7)
ts·lī'ⁱk'dek' my meat (44.3, 6; 170.6)
wila'ut'ek' my arrow (45.13; 154.18) (absolute *wila'u* 22.5; 28.1, 2; 77.5)
ga'lt'ek' my bow (154.19; 190.22) (absolute *ga'lᵉ*)
la'psdek' my blanket (absolute *la'ps* 98.14, 15, 19, 21)
ts·!ixi-maha'it'ek' my horse (absolute *ts·!i'xi-maha'i*)

Scheme III is followed by all nouns that have a characteristic immediately preceding the personal suffix or, in nearly all cases, whose stem, or stem + derivative suffix, ends in *-a-* (e. g., *t!ela't'k'* MY SHINNY-STICK [from *t!ela'*]), *-i-*, *-ei-* (e. g., *ts·!eleīt'k'* MY EYE [from *ts·!elei-*]), *-n* (e. g., *sēnt'k'* MY SKIN), *-m*, or *-l*[1] (e. g., *dīⁱᵉa'lt'k'*

[1] In most, if not all, cases the *-n*, *-m*, or *-l* is a non-radical element. It is not quite clear in how far stems ending in these vowels and consonants follow Scheme II or Scheme III.

MY FOREHEAD [from *dī$^{i\varepsilon}$al-*]). The third person is, at least superficially, without ending in all nouns of this group whose pre-pronominal form is not monosyllabic. The third personal form is characterized by a falling accent on the final syllable, *-a-* and *-i-* being lengthened to *-ā′^{a}* and *-ī′^{i}* respectively. Other forms are:

ts·!ele′i his eye 27.8; 86.7, 9; (cf. 54.6)
dō^{u}ma′l his testicles 130.8; 136.5
xā^{a}la′m his urine
gwit!i′n his wrist

There is no doubt, however, that these forms without ending originally had a final *-t‘*, as indicated by the analogy of third personal forms in *-da* in Scheme II, and as proved by the preservation of the *-t‘-* before the reflexive suffix *-gwa* and in monosyllabic forms:

p!ā′^{a}nt‘ his liver 120.2, 15
nī′^{i}t‘ her teats 30.14; 32.7
t!ī′^{i}t‘ her husband (17.13)
sā′^{a}t‘ his discharge of wind 166.8

Though the conditions for the loss of a final *-t‘* are not fully understood, purely phonetic processes having been evidently largely intercrossed by analogic leveling, it is evident that the proportion *wilī′^{i}* HIS HOUSE: *nī′^{i}t‘* HER TEATS = *s·as·inī* HE STANDS: *wīt‘* HE TRAVELS ABOUT represents a by no means accidental phonetic and morphologic correspondence between noun and verb (Class II intransitives). The falling pitch is peculiar to the noun as contrasted with the verb-form (cf. *he′^{e}l* SONG, but *hēl* SING!). Monosyllabic stems of Scheme III seem to have a rising accent before *-t‘gwa* as well as in the first person. Thus:

lāt‘gwa his own excrement 77.1
t!ūt‘gwa her own husband (despite *t!ī′^{i}t‘*) 45.14; (59.16; 60.2); 128.22

Nouns with characteristic *-i-* prefer the parallel form in *-i′-x-dagwa* to that in *-i′-t‘gwa*. Thus:

bū^{u}bini′xdagwa his own arm, rather than *bū^{u}bini′t‘gwa*, despite *bū^{u}bini‘t‘k‘* MY ARM

The limitation of each of the two schemes to certain definite phonetically determined groups of nouns (though some probably merely apparent contradictions, such as *ga′l-^{1}t‘ek‘* MY BOW and *dī$^{i\varepsilon}$a‘l-t‘k‘*

[1] *-t‘k‘* always requires preceding rising or raised accent. As *gal-* BOW seems to be inseparably connected with a falling accent (very likely because of the catch in its absolute form), it is, after all, probably a phonetic reason that causes it to follow Scheme II rather than III.

MY FOREHEAD, occur), together with the evident if not entirely symmetrical parallelism between the suffixes of both, make it practically certain that they are differentiated, owing to phonetic causes, from a single scheme. The *-a-* of *-da* (*-dagwa*) and *-daba^{ɛ}n* (as contrasted with *-t'* and *-^{ɛ}t'ban*) may be inorganic in origin, and intended to support phonetically difficult consonant combinations:

gūxda his wife (from **gūx-t'*) 13.2; 43.15; 49.6, like *ī-lasga'* touch it (from stem *lasg-*)

The *-e-*, however, of *-dek'* 32.6 and *-de^{ɛ}* 31.1; 59.3 can not be thus explained. It is not improbable that part of the endings of Scheme III are due to a loss of an originally present vowel, so that the primary scheme of pronominal suffixes may have been something like:

Singular: First person, *-d-ek';* second person, *-d-e^{ɛ};* third person, *-t'*. Reflexive: Third person, *-t'-gwa*. Plural: First person, *-d-a'm;* second person, *-t'-ba^{ɛ}n*.

It can hardly be entirely accidental that all the suffixes are characterized by a dental stop; perhaps an amalgamation has taken place between the original pronominal elements and an old, formerly significant nominal element *-d-*.

§ 93. POSSESSIVES WITH PRE-POSITIVES

As examples of possessive affixes attached to nouns with prepositives and to local elements may be taken *dak'-* OVER, *wa-*[1] TO, *haw-an-* UNDER, and *ha-^{ɛ}īū-* IN HAND.

Singular:				
First person	*dak'dɛ̄* over me	*wadɛ̄* to me	*hawandɛ̄* under me	*ha^{ɛ}īūdɛ̄* in my hand
Second person . . .	*dāk'da^{ɛ}*	*wada'^{ɛ}*	*hawanda'^{ɛ}*	*ha^{ɛ}ī'ūda^{ɛ}*
Third person . . .	*da'k'dāᵃda*	*wā'ᵃda*	*hawa'nda*	*ha^{ɛ}ī'ūda*
Plural:				
First person	*dak'da'm*	*wada'm*	*hawanda'm*	*ha^{ɛ}īūda'm*
Second person . . .	*da'k'daba^{ɛ}n*	*wā'ᵃ^{ɛ}t'ban*	*hawa'n^{ɛ}t'ban*	*ha^{ɛ}ī'ū^{ɛ}t'ban*
Singular reflexive:				
Third person . . .	*da'k'dagwa*	*wa't'gwa*	*hawa'nt'gwa*	*ha^{ɛ}ī'ūt'gwa*
Plural reflexive:				
Third person . . .	*da'k'dagwan*	*wa't'gwan*	*hawa'nt'gwan*	*ha^{ɛ}ī'ūt'gwan*

The apparently double ending *-dāᵃda* of the third person of *dak'-* is not entirely isolated (cf. *ha-ye^{ɛ}wa'x-dāᵃda* IN THEIR TIME OF RETURNING; *he'^{ɛ}^{ɛ}-dāᵃda* BEYOND HIM), but can not be explained. The use of

[1] It is possible that this *wa-* is etymologically identical with the verbal prefix *wa-* TOGETHER. The forms of *wa-* given above are regularly used when reference is had to persons, the postposition *ga^{ɛ}a'l* being employed in connection with things: *wā'ᵃda gini'^{ɛ}k'* HE WENT TO HIM (56.11); 148.6; *s·om ga^{ɛ}a'l gini'^{ɛ}k'* HE WENT TO THE MOUNTAIN (43.6).

-dagwa and *-daba^{e}n* on the one hand, and of *-t'gwa* and *-^{e}t'ban* on the other, is determined by the same phonetic conditions as differentiate Schemes II and III. A third personal plural in *-t'an* (apparently =*-d-* + *-han*) is also found: *de'^{e}t'an* IN FRONT OF THEM 190.13 (but *de'^{e}da* BEFORE HIM 59.14); *xā^{a}-s·ogwī'^{i}t'an* BETWEEN THEM (see below, p. 240); *wā'^{a}t'an* TO THEM 160.15. A form in *-xa* seems also to occur with third personal plural signification: *wa'xa ts·!inī'^{i}ts·!anx* HE GOT ANGRY AT THEM; *dihaūxa* AFTER THEM, BEHIND THEIR BACKS 132.13.

The number of local elements that directly take on possessive suffixes seems fairly considerable, and includes both such as are body-part and local prefixes in the verb (e. g., *dak'-*) and such as are used in the verb only as local prefixes (e. g., *wa-*, *dal-*); a few seem not to be found as verbal prefixes. Not all adverbially used verbal prefixes, however, can be inflected in the manner of *dak'dē* and *wadē* (e. g., no **hadē* can be formed from *ha-*). A number of body-part and local stems take on a noun-characteristic:

haw-an- under (from *ha-u-*)
xā^{a}-ham-dē[1] about my waist (from *xā^{a}-*)

The local elements that have been found capable of being followed by pronominal affixes are:

dak'dē over me (56.9; 110.18); 186.4, 5
wadē to me (56.15; 60.1; 63.14; 88.13; 150.18; 194.1)
xā^{a}hamdē about my waist
gwelda' under it 190.17
gwe'nda (in *Gwenda yu'sā^{a}* = being at its nape, i. e., east of it)
dī'^{i}da close in back of him, at his anus 138.2
dindē behind me (?=verb-prefix *dī^{e}-* anus, behind+noun-characteristic *-n-*) (86.9; 138.3; 170.1)
hawandē under me (71.1, 5, 12)
geldē in front of me, for (in behalf of) me
dedē in front of me (59.14; 124.20)
hā^{e}yadē around me
he'^{e}^{e}dā^{a}da beyond him 148.9
ha'nda across, through it
da'lt'gwan among themselves 98.2
gwen-ha-udē at my nape; *gwen-haūt'gwa* in back of his own neck 75.2
di-ha-udē after I went away, behind my back (132.10; 186.8; 192.4)

[1] It is only the different schemes of personal endings that, at least in part, keep distinct the noun *xā^{a}ham-* BACK and the local element *xā^{a}ham-* ON BACK, ABOUT WAIST: *xā^{a}ha'm* HIS BACK, but *xā^{a}ha'mda* ON HIS BACK, AT HIS WAIST; *xā^{a}ha'mdam* OUR BACKS and ON OUR BACKS.

dī$^{i\varepsilon}$-a'lda over his eyes, on his forehead (172.3)
nō'ts!adam neighboring us (= stem *nōts!-* next door + noun-characteristic *-a-*) (98.13)

When used as local pre-positives with nouns, these local stems drop their characteristic affixes, and thus appear in the same form in which they are found in the verb (e. g., *xā^{a}-gweldē* BETWEEN MY LEGS), except that *ha-u-* UNDER as pre-positive adds an *-a-*: *hawa-* (e. g., *hawa-saldē* UNDER MY FEET). The various pre-positives found pre-fixed to nouns with possessive suffixes are:

ha- in
hawa- under
dak'- over
dī^{i}- above
dā^{a}- alongside
al- to, at
de-, da- in front of
xā^{a}- between, in middle of
gwen- at nape, east of
dī$^{\varepsilon}$- at rear end, west of
dal- away from
han- across (?)
gel- facing
gwel- under, down from

The noun itself, as has already been seen, appears with its characteristic. *t'gā* EARTH, however, perhaps for some unknown phonetic reason, does not retain its characteristic *-u-* before the possessive suffixes (*ha-t'gāū* IN THE COUNTRY 33.7, but *ha-t'gā^{a}dē* IN MY COUNTRY 194.4) Examples of forms of the type *ha$^{\varepsilon}$rūdē* IN MY HAND are:

ha-dī't'gwa in back of him, in his anus (incorporated *dī$^{\varepsilon}$-*) 94.11
dā^{a}-yawadē[1] aside from me (literally, alongside my ribs)
dak'-s·aldē on top of my feet 198.6; (cf. 44.8)
hawa-lü^{ü}lidē under my throat
dak'-s·inī'^{i}da over his nose 144.11
al-guxwida'm wōk' we have enough of it (literally, to-our-hearts it-has-arrived) 128.1
ha-wilidē in my house (64.2; 88.18; 120.14)
ha-ye$^{\varepsilon}$waxdē in my returning (= when I return) (124.15)
dī-delga'nt'gwa behind himself, at his own anus (72.10)
al-wā^{a}dī't'gwan at one another (literally, to each other's bodies; *wā^{a}d-i-* body) (96.22; 146.2; 190.19)

[1] Also *dal-yawadē* ASIDE FROM ME (with verb of throwing) (=literally, AWAY FROM MY RIBS).

ha-sa'lda (thinking) of her (literally, in her footsteps) 142.13
dī^{i}-dandē over my ear
dī^{i}-ts·!eleidē over my eyes
ha-dedē in my mouth (170.2; 182.17)
gwen-bok'dandē at my nape
xā^{a}-s·inidē resting on my nose (like spectacles)
gwel-^{s}wā^{a}didē down from my body 198.4

Several such forms with apparently simple local signification contain after the pre-positive a noun stem not otherwise found:

xā^{a}-s·ogwida'm between us
ha-^{s}winidē inside of me (73.1; 92.17)
di-bō^{u}widē at my side
da^{s}oldidē close to me (124.9) (cf. adverb *da^{s}o'l* near by 102.6)

Such a non-independent noun is probably also *ha-u-* in *gwen-ha-u-* and *di-ha-u-*, both of which were listed above as simple local elements.

Instances also occur, though far less frequently, of pre-positives with two nouns or noun and adjective; the first noun generally stands in a genitive relation to the second (cf., § 88, the order in juxtaposed nouns), while the second noun is followed by the third personal possessive *-da*. Such are:

gwen-t'gā^{a}-bo'k'dan-da at nape of earth's neck (= east) 79.6; 102.4
dī-t'gā^{a}-yu'k!umā^{a}-da at rear of earth's tail (= west) 146.1; 198.9
ha-t'gā^{a}-yawā'^{a}-da in earth's rib (= north) (cf. 194.9)
dā^{a}-xi-ts·!ek'ts·!igī'^{i}-da alongside water's backbone (= not far from shore)
xā^{a}-xi-ts·!ek'ts·!igī'^{i}da in middle of water's backbone (= equally distant from either shore) 112.4
Ha-yā^{a}l-bā'ls-da[1] in its long (i. e., tall) (*bāls*) pines (*yāl*) (= place-name) 114.9
Dī-p!ol-ts!i'l-da over (*dī^{i}*) its red (*ts!il*) bed (*p!ol* ditch) (= Jump-off Joe creek)
Al-dan-k!olo'i-da[1] to its rock (*da'n*) basket (*k!oloī*) (= name of mountain)

Rather difficult of explanation is *de-de-wilī'^{i}-da* DOOR, AT DOOR OF HOUSE 63.11; 77.15; 176.6, which is perhaps to be literally rendered IN FRONT OF (first *de-*) HOUSE (*wili*) ITS (*-da*) MOUTH (second *de-*) (i. e., IN FRONT OF DOORWAY). The difficulty with this explanation is that it necessitates the interpretation of the second noun as a genitive in relation to the first.

[1] Observe falling accent despite rising accent (*bāls*, *k!oloī*) of independent noun. *-da* with pre-positives, whether with intervening noun or noun and adjective, consistently demands a falling accent before it.

5. *Local Phrases* (§§ 94–96)

§ 94. GENERAL REMARKS

Local phrases without possessive pronouns (i. e., of the type IN THE HOUSE, ACROSS THE RIVER) may be constructed in three ways.

A local element with third personal possessive suffix may be used to define the position, the noun itself appearing in its absolute form as an appositive of the incorporated pronominal suffix:

da'n gwelda‘ rock under-it (i. e., under the rock)
da'n handa through the rock
dan hā'$^{a\varepsilon}$yā^{a}da around the rock
dan da$^{\varepsilon}$oldī'^{i}da near the rock
dan ge'lda in front of the rock
dan di'nda behind the rock

There is observable here, as also in the method nearly always employed to express the objective and genitive relations, the strong tendency characteristic of Takelma and other American languages to make the personal pronominal affixes serve a purely formal purpose as substitutes for syntactic and local cases.

The second and perhaps somewhat more common method used to build up a local phrase is to prefix to the noun a pre-positive, the noun itself appearing in the form it assumes before the addition of the normal pronominal suffixes (Schemes II and III). Thus some of the preceding local phrases might have been expressed as:

gwel-dana‘ under the rock
han-dana‘ through the rock
hā'$^{a\varepsilon}$ya-dana‘ around the rock
gel-dana‘ in front of the rock
dī$^{\varepsilon}$-dana‘ behind the rock

These forms have at first blush the appearance of prepositions followed by a local case of the noun, but we have already seen this explanation to be inadmissible.

A third and very frequent form of local phrase is the absolute noun followed by a postposition. The chief difference between this and the preceding method is the very considerable amount of individual freedom that the postposition possesses as contrasted with the rigidly incorporated pre-positive. The majority of the postpositions consist of a pre-positive preceded by the general demonstrative *ga-* THAT. *da'n gada'k*‘ OVER THE ROCK is thus really to be analyzed as ROCK THAT-OVER, an appositional type of local

phrase closely akin in spirit to that first mentioned: *dan da'k'dā^{a}da* ROCK OVER-IT. *dak'-dana'*, according to the second method, is also possible.

§ 95. PRE-POSITIVES

The pre-positives employed before nouns without possessive suffixes are identical with those already enumerated (§ 94) as occurring with nouns with possessives, except that *hawa-* UNDER seems to be replaced by *gwel-*. It is doubtful also if *he$^{e\epsilon}$-* BEYOND (also *han-* ACROSS ?) can occur with nouns followed by possessive affixes. Examples of pre-positives in local phrases are:

han-gela'm across the river
han-waxga'n across the creek
han-p!iya' across the fire 168.19
ha'-waxga'n in the creek
ha-xiya' in the water 58.6; 60.3; 61.11; 63.16
ha-bini' in the middle 176.15 (cf. *de-bi'n* first, last 150.15)
ha-p!ola' in the ditch
ha-gwā^{a}la'm in the road 62.6; 158.19
ha-s·ugwañ in the basket (cf. 124.18)
xa'-s·ō^{u}ma'l halfway up the mountain
xā^a-gulma'n among oaks
xā^a-xo (*yā'^{a}*) (right) among firs (cf. 94.17)
gwel-xi'ya under water 156.19
gwel-t'gāū down to the ground 176.8
dā^a-ts!ā^{a}wa'n by the ocean 59.16
dā^a-t'gāū alongside the field
gwen-t'gāū east of the field 55.4; 56.4
gwen-waxga'n east along the creek
Gwen-p'uñk' place-name (=east of rotten [*p'u'n*]) 114.14
de-wilī in front of the house (=out of doors) 70.4
dak'-s·ō^{u}ma'l on top of the mountain 188.15
dak'-wilī over the house 59.2; 140.5
dak'-p!iya' over the fire 24.6, 7
he$^{e\epsilon}$-s·ō^{u}ma'l beyond the mountain 124.2; 196.13
al-s·ō^{u}ma'l at, to the mountain 136.22; 152.8; 192.5, 7, 8
hā'$^\epsilon$ya-p!iya' on both sides of the fire 176.12
hā'$^\epsilon$ya-s·ō^{u}ma'l on both sides of the mountain 152.2
di-t'gāū west of the field 55.3
dī-waxga'n some distance west along the creek
dī-s·ō^{u}ma'l at foot ([?]=in rear) of the mountain
Dī$^{i\,1}$-dala'm place-name (=over the rock[?])
Gel-yālk' place-name (=abreast of pines) 112.13

[1] Perhaps really *Dī^i-dala'm* WEST OF THE ROCK (?).

A few cases of compound pre-positives occur:

ha-gwel-p!iya' under the ashes (literally, in-under-the-fire) 118.4
ha-gwel-xiya' at bottom of the water 60.12, 14
ha-gwel-t'ge'^{e}mt'gam down in dark places 196.7

An example of a pre-positive with a noun ending in pre-pronominal *-x* is afforded by *ha-dā^{a}nx molhi't'* IN-EAR RED 14.4; 15.13; 88.2 (alongside of *dā^{a}molhi't'* RED-EARED 15.12; 86.6). It is somewhat doubtful, because of a paucity of illustrative material, whether local phrases with final pre-pronominal *-x* can be freely used.

§ 96. POSTPOSITIONS

Not all pre-positives can be suffixed to the demonstrative *ga-* to form postpositions; e. g., no **gaha'*, **gaha'n*, **gagwe'l* are found in Takelma. Very few other words (adverbs) are found in which what are normally pre-positives occupy the second place: *me'^{e}al* TOWARD THIS DIRECTION 58.9; *ye'k'dal* IN THE BRUSH 71.3. Instead of *-ha* IN, *-na'u* is used, an element that seems restricted to the postposition *gana'u* IN. The *ga*-postpositions that have been found are:

gada'k' on 48.15; 49.1
gidī^{i} (= *ga-dī^{i}*) on, over 49.12
gidī'^{e} (=*ga-dī'^{e}*) in back
gana'u in 47.2; 61.13; 64.4; 110.9
gada'l among 94.12
ga^{e}a'l to, for, at, from 43.6; 44.4; 55.6; 58.11
gadā^{a} by, along 60.1
gaxā^{a} between
gede in front (?) 28.8, 9

and possibly:

gasal in adverb *gasa'lhi* quickly 28.10; 29.14; 160.1

Examples of their use are:

wi'li gada'k' on top of the house 14.9; 15.5
da'n gada'k' on the rock
t'gā^{a} gidī upon the land 49.12
p!ī^{i} gada'l in between the fire 94.12
da'n gada'l among rocks
da'n gadā alongside the rocks (cf. 60.1)
wü^{ü}lham-hoidigwia gadā^{a} gini'^{e}k' he went right by where there was round-dancing (literally, menstruation-dancing-with by he-went) 106.13
eī gana'u in the canoe 96.24; 112.3

dola' gana'u in the old tree 24.1
wa-iwī'ɨt'a·ga^{s}a'l to the female 15.14
ga' ga^{s}a'l for that reason 50.2; 124.6; 146.20, 21; 188.6; 194.11
bixal wi^{s}in-wi'^{s} ga^{s}al ya'^{s} he goes every month (literally, month different-every at he-goes)
da'n gaxā^{a} between the rocks
dīū gede' right at the falls 33.13
Yūk'ya'k'wa gede[1] right by Yūk'ya'k'wa 188.17

Postpositions may be freely used with nouns provided with a possessive suffix; e. g., *ela'ɨ'k' gada'k'* ON MY TONGUE; *wilī'ɨ gana'u* IN HIS HOUSE, cf. 194.7. There is no ascertainable difference in signification between such phrases and the corresponding pre-positive forms, *dak'-eladē* and *ha-wilī'ɨda*. Sometimes a postposition takes in a group of words, in which case it may be enclitically appended to the first:

k!iyī'x gan'au ba-igina'xdā^{a} smoke in its-going-out (=[hole] in which smoke is to go out) 176.7

Although local phrases involving a postposition are always pronounced as one phonetic unit, and the postpositions have become, psychologically speaking, so obscured in etymology as to allow of their being preceded by the demonstrative with which they are themselves compounded (cf. *ga ga^{s}a'l* above), they have enough individuality to render them capable of being used quasi-adverbially without a preceding noun:

gada'k' s·u^{s}wilīt'e^{s} I sat on him
gadak' ts!ā^{a}k'ts!a'k'de^{s} I step on top of it (148.17)
gidī^{i} gaīxgwa thereon eating (=table)
gidī'^{s}-hi closer and closer (literally, right in back)
gadā^{a} yeweya'k'^{w} he got even with him (literally, alongside he-returned-having-him) 17.5
mā̃l yaxa aba'i dūl gede' salmon-spear-shaft only in-house, spear-point thereby 28.7, 9
gī^{i} gana'u I am inside
ga'nau naga'^{is} wili'ɨ'k' he went through my house (literally, in he-did my-house [for *naga'^{is}* see § 69]) cf. 78.5

Other postpositions than those compounded with *ga-* are:

da^{s}o'l near (cf. *da^{s}ol-* as pre-positive in *da^{s}oldidē* near me): *wili'ɨ'k' da^{s}o'l* near my house
wa with (also as incorporated instrumental *wa-*, § 38) 25.5; 47.5

[1] *Yuk'ya'k'wa gada* was said to be preferable, whence it seems possible that *gede* is not really equivalent to *ga* THAT + *de-* IN FRONT, but is palatalized as adverb (see below, § 104) from *gadā^{a}*.

ha-bini' in the middle: *wili ha'-bini'*[1] in the middle of the house; *ha-be^{e}-bini'* noon (literally, in-sun [=day]-middle) 126.21; 186.8

-di's away: *eme'^{e}dis* away from here; *dedewilī'^{i}dadi's* (? outside of) the door 176.6

It is peculiar that mountain-names generally have a prefix *al-* and a suffix *-dis:*

al-dauyā'^{a}k'wa-dis (cf. *dauyā'^{a}k'^{w}* supernatural helper) 172.1
al-wila'mxa-dis
al-sawēnt'a-dis

That both *al-* and *-dis* are felt not to be integral parts of these mountain-names is shown by such forms as *he^{ee}-wila'mxa* BEYOND Alwila'mxadis 196.14 and *al-dauyā'^{a}k'^{w}*. In all probability they are to be explained as local phrases, AT, TO (*al-*) . . . DISTANT (*-dis*), descriptive of some natural peculiarity or resident supernatural being.

Differing apparently from other postpositions in that it requires the preceding noun to appear in its pre-pronominal form (i. e., with final *-x* if it is provided with it in Scheme II forms) is *wa'k'i^{e}* WITHOUT, which would thus seem to occupy a position intermediate between the other postpositions and the pre-positives. Examples are:

ts'!elei wa'k'i^{e} without eyes 26.14; 27.6
dagax wa'k'i^{e} without head
yūk!alx wa'k'i^{e} without teeth 57.4
nixa wa'k'i^{e} motherless

As shown by the last example, terms of relationship whose third personal possessive suffix is *-xa* (*-a*) use the third personal form as the equivalent of the pre-pronominal form of other nouns (cf. also § 108, 6), a fact that casts a doubt on the strictly personal character of the *-xa* suffix. No third personal idea is possible, e. g., in *maxa wa'k'i^{e} eīt'e^{e}* I AM FATHERLESS. *wak'i^{e}* is undoubtedly related to *wa* WITH; the *-k'i^{e}* may be identical with the conditional particle (see § 71).

On the border-line between loosely used preposition and independent adverb are *nogwa'* BELOW, DOWN RIVER FROM (? = *nõ^{u}* DOWN RIVER + demonstrative *ga* THAT) : *nogwa wilī* BELOW THE HOUSE 76.7; and *hinwa'* ABOVE, UP RIVER FROM (cf. *hina'u* UP RIVER) : *hi'nwa wilī* ABOVE THE HOUSE 77.1.

[1] Properly speaking, *ha-bini'* is a pre-positive phrase from noun-stem *bin-* (cf. *de-bin* FIRST, LAST, and [?] *bilgan-x-* BREAST[? = middle part of body-front]) with characteristic *-i-*. *bee-bin-* SUN'S MIDDLE is compounded like, e. g., *t'gā-bok'dan-* EARTH'S NECK above (§ 93).

6. *Post-nominal Elements* (§§ 97-102)

§ 97. GENERAL REMARKS

Under the head of post-nominal elements are included a small group of suffixes which, though altogether without the distinct individuality characteristic of local postpositions, are appended to the fully formed noun, pronoun, or adjective, in some cases also adverb, serving in one way or another to limit or extend the range of application of one of these denominating or qualifying terms. The line of demarcation between these post-nominal elements and the more freely movable modal particles discussed below (§ 114) is not very easy to draw; the most convenient criterion of classification is the inability of what we have termed POST-NOMINAL elements to attach themselves to verb-forms.

§ 98. EXCLUSIVE *-t'a*

The suffix *-t'a* is freely appended to nouns and adjectives, less frequently to pronouns, in order to specify which one out of a number is meant; the implication is always that the particular person, object, or quality mentioned is selected out of a number of alternative and mutually exclusive possibilities. When used with adjectives *-t'a* has sometimes the appearance of forming the comparative or superlative; e. g., *aga* (1) *t!os·õ'^{u}t'a* (2) THIS (1) IS SMALLER (2), but such an interpretation hardly hits the truth of the matter. The sentence just quoted really signifies THIS IS SMALL (NOT LARGE LIKE THAT). As a matter of fact, *-t'a* is rather idiomatic in its use, and not susceptible of adequate translation into English, the closest rendering being generally a dwelling of the voice on the corresponding English word. The following examples illustrate its range of usage:

*hapxit!ῑ'^{i}*t'a child male (not female) (i. e., boy) 14.1; 156.8

*wa-iwῑ'^{i}*t'a *ga^{ɛ}al yewe'^{iɛ}* the-woman to he-turned (i. e., he now proceeded to look at the woman, after having examined her husband) 15.14

maha'it'a a'nῑ^{ɛ} gwῑ na^{ɛ}naga'^{iɛ} the-big (brother) not in-any-way he-did (i. e., the older brother did nothing at all, while his younger brother got into trouble) 23.6; (58.3)

aga wãxat'a xebe'^{ɛ}n this his-younger-brother did-it (not he himself)

k!wa'lt'a younger one 24.1; 58.6

ā'k'da dū́t'a gī^{i}-s·i^{ɛ} ī'lts!ak'^{w} eūt'e^{ɛ} he (*āk'*) (is) handsome (*dū́*) I-but ugly I-am

ü's·i nāxdek' al-ts!i'lt'ā^{a} give-me my-pipe red-one (implying others of different color)

waga't'ā^{a} di which one?

aga t!os·ō'^{u}t'a ī'daga yaxa maha'it'a this (is) small, that but large (cf 128.7)

ī'daga s·ō^{uɛ} maha'it'a that-one (is) altogether-big (=that one is biggest)

It seems that, wherever possible, *-t'a* keeps its *t'* intact. To prevent its becoming *-da* (as in *ā'k'da* above) an inorganic *a* seems to be added in:

k!ulsa't'ā^{a} soft 57.9 (cf. *k!u'ls* worm; more probably directly from *k!ulsa't'* 130.22)

§ 99. PLURAL (*-t'an, -han, -k!an*)

As a rule, it is not considered necessary in Takelma to specify the singularity or plurality of an object, the context generally serving to remove the resulting ambiguity. In this respect Takelma resembles many other American languages. The element *-(a)n*, however, is not infrequently employed to form a plural, but this plural is of rather indefinite application when the noun is supplied with a third personal possessive suffix (compare what was said above, § 91, in regard to *-gwan*). The fact that the plurality implied by the suffix may have reference to either the object possessed or to the possessor or to both (e. g., *beya'nhan* HIS DAUGHTERS OR THEIR DAUGHTER, THEIR DAUGHTERS) makes it very probable that we are here dealing, not with the simple idea of plurality, but rather with that of reciprocity. It is probably not accidental that the plural *-(a)n* agrees phonetically with the reciprocal element *-an-* found in the verb. In no case is the plural suffix necessary in order to give a word its full syntactic form; it is always appended to the absolute noun or to the noun with its full complement of characteristic and pronominal affix.

The simple form *-(a)n* of the suffix appears only in the third personal reflexive possessive *-gwa-n* (see § 91) and, apparently, the third personal possessive *-t'an* of pre-positive local phrases (see p. 238). Many absolute nouns ending in a vowel, or in *l*, *m*, or *n*, also nouns with personal affixes (including pre-positives with possessive suffixes) other than that of the third person, take the form *-han* of the plural

suffix; the *-h-* may be a phonetically conditioned rather than morphologically significant element. Examples are:

Noun	Plural
sĩnsan decrepit old woman	*sĩnsan*han
ts·!i'xi dog	*ts·!ixi'*han
ya'p!a person 176.1, 12	*yap!a'*han 32.4
eĩ canoe 13.5; 112.3, 5	*eĩ*han
wik!ū^{u}ya'm my friend	*wik!ū^{u}yû'm*han
wits·!aĩ my nephew 22.1	*wits·!aĩ*han 23.8, 10; 150.4
bõ^{u}t'bidit'k' my orphan child	*bõ^{u}t'bidit'k'*han
nõ'ts!adẽ neighboring to me	*nõ'ts!ade^{e}*han
hindẽ O mother! 186.14	*hindẽ*han O mothers! 76.10, 13

A large number of chiefly personal words and all nouns provided with a possessive suffix of the third person take *-t'an* as the plural suffix; the *-t'an* of local adverbs or nouns with pre-positives has been explained as composed of the third personal suffix *-t'* and the pluralizing element *-han*: *nõ'ts!ā^{a}t'an* HIS NEIGHBORS. In some cases, as in *wa-wī'^{i}t'an* GIRLS 55.16; 106.17, *-t'an* may be explained as composed of the exclusive *-t'a* discussed above and the plural *-n*. The fact, however, that *-t'an* may itself be appended both to this exclusive *-t'a* and to the full third personal form of nouns not provided with a pre-positive makes it evident that the *-t'a-* of the plural suffix *-t'an* is an element distinct from either the exclusive *-t'a* or third personal *-t'*. *-t'ā^{a}t'a-n* is perhaps etymologically as well as phonetically parallel to the unexplained *-dā^{a}da* of *da'k'dā^{a}da* OVER HIM (see §93). Examples of *-t'an* are:

Noun	Plural
lomt!ī'^{i} old man 112.3, 9; 114.10; 126.19	*lomt!ī'^{i}*t'an
mologo'l old woman 168.11; 170.10	*mologo'l*t'an
wa-iwī'^{i} girl 124.5, 10	*wa-iwī'^{i}*t'an 55.16; 60.2; 106.17
ā'i-hi' just they (cf. 49.11; 138.11)	*ā'i*t'an they
ts·!ixi-maha'i horse	*ts·!ixi-maha'i*t'an
lō^{u}sī'^{i} his plaything 110.6, 11	*lō^{u}sī'^{i}*t'an
mõ'^{u}t'ā^{a} his son-in-law	*mõ'^{u}t'ā^{a}*t'an their sister's husband[1] 150.22; 152.4, 9
t!ela' louse (116.3, 6)	*t!elā'^{a}*t'an
hapxi-t!ī'^{i}t'ā^{a} boy 14.6; 156.8, 10	*hapxi-t!ī'^{i}t'ā^{a}*t'an 160.14
dap!ā'la-u youth 132.13; 190.2 *bala'u* young	*dap!ā'la-ut'an* 132.12 *bala'ut'an*
wō^{u}nā'k'^{w} old 57.1; 168.2	*wō^{u}nā'k'^{w}*dan

[1] *mot'-* seems to indicate not only the daughter's husband, but also, in perhaps a looser sense, the relatives gained by marriage of the sister.

The plural form *-k!an* is appended to nouns in *-lā'p'a* and to the third personal *-xa(-a)* of terms of relationship. As *-k!-*[1] is appended to nouns in *-lā'p'a* also before the characteristic *-i-* followed by a possessive suffix, it is clear that *-k!an* is a compound suffix consisting of an unexplained *-k!-* and the plural element *-(a)n*. Examples of *-k!an* are:

*t!ī'ilā'p'a*k!an men 128.11; 130.1, 7, 25; 132.17
*k'a'isilā'p'a*k!an women 184.13
*mologolā'p'a*k!an old women 57.14; 128.3, 10 (also *mologo'lt'an*)
*o'pxa*k!an her elder brothers 124.16, 20; 134.8; 138.7
*k'aba'xa*k!an his, their sons 132.10; 156.14
*ma'xa*k!an their father 130.19, 21; 132.12
*t'awãxa*k!an their younger sister 148.5
*k!a'sa*k!an their maternal grandmother 154.13; 156.8, 15, 18, 21

§ 100. DUAL *-dīl*

The suffix *-dūl(-dī'l)* is appended to a noun or pronoun to indicate the duality of its occurrence, or to restrict its naturally indefinite or plural application to two. It is not a true dual in the ordinary sense of the word, but indicates rather that the person or object indicated by the noun to which it is suffixed is accompanied by another person or object of the same kind, or by a person or object mentioned before or after; in the latter case it is equivalent to AND connecting two denominating terms. Examples illustrating its use are:

*gō^{u}m*dī'l we two (restricted from *gō^{u}m* we)
*ga*dīl *gō^{u}m ī!hēmxinigam* we two, that one and I, will wrestle (literally, that-one-and-another [namely, I] we we-shall-wrestle) 30.5
*sgi'si*dī'l two coyotes (literally, coyote-and-another [coyote])
*wãxa*dī'l two brothers (lit., [he] and his younger brother) 26.12
*sgisi ni'xa*dī'l Coyote and his mother 54.2

The element *-dūl* doubtless occurs as an adjective stem meaning ALL, EVERY, in *aldūl* ALL 134.4 (often heard also as *aldī* 47.9; 110.16; 188.1); *hadedūlt'a* EVERYWHERE 43.6; 92.29; and *hat'gā^{a}dūlt'a* IN EVERY LAND 122.20.

§ 101. *-wi'^{ɛ}* every

This element is freely appended to nouns, adjectives, and adverbs, but has no independent existence of its own. Examples are:

*be^{ɛ}*wi'^{ɛ} every day (literally, every sun) 42.1; 158.17
*xū'^{ɛ}n*wi^{ɛ} every night (*xū'^{ɛ}n, xū'^{ɛ}ne'* night, at night)

[1] It was found extremely difficult, despite repeated trials, for some reason or other, to decide as to whether *-k!-* or *-g-* was pronounced. *-k!i-* and *-k!an* may thus be really *-gi-* and *-gan*.

*bixal wi$^{\varepsilon}$in*wi'$^{\varepsilon}$ *ba-i-wili'*$^{u\varepsilon}$ month comes after month (literally, moon different-each out-goes)
*gwel-$^{\varepsilon}$wāk'wi*wi$^{\varepsilon}$ every morning (*gwel-$^{\varepsilon}$wāk'wi$^{\varepsilon}$* morning 44.1)
*da-hō^{u}xa*wi'$^{\varepsilon}$ every evening
*ha-be^{e}-bini*wi'$^{\varepsilon}$ every noon
*k'ai*wi'$^{\varepsilon}$ everything, something (*k'a-*, *k'ai-* what, thing) 180.5, 6
*ada't'*wi$^{\varepsilon}$ everywhere, to each 30.12; 74.2; 120.13

As illustrated by *k'aiwi'$^{\varepsilon}$*, the primary meaning of *-wi$^{\varepsilon}$* is not so much EVERY as that it refers the preceding noun or adverb to a series. It thus conveys the idea of SOME in:

*dal$^{\varepsilon}$*wi'$^{\varepsilon}$ sometimes, in regard to some 57.12
*xā$^{\varepsilon}$ne*wi'$^{\varepsilon}$ sometimes 132.25

With pronouns it means TOO, AS WELL AS OTHERS:

*gī^{i}*wi'$^{\varepsilon}$ I too
*mā^{a}*wi'$^{\varepsilon}$ you too 58.5

Like *-dīl*, *-wi$^{\varepsilon}$* may be explained as a stereotyped adjectival stem that has developed into a quasi-formal element. This seems to be indicated by the derivative *wi$^{\varepsilon}$i'n* EVERY, DIFFERENT 49.1; 160.20; 188.12.

§ 102. DEICTIC *-$^{\varepsilon}$a'*

It is quite likely that the deictic *-$^{\varepsilon}$a'* is etymologically identical with the demonstrative stem *a-* THIS, though no other case has been found in which this stem follows the main noun or other word it qualifies. It differs from the exclusive *-t'a* in being less distinctly a part of the whole word and in having a considerably stronger contrastive force. Unlike *-t'a*, it may be suffixed to adverbs as well as to words of a more strictly denominative character. Examples of its occurrence are extremely numerous, but only a very few of these need be given to illustrate its deictic character:

*ma$^{\varepsilon}$*a' you ([I am ——,] but you ——) 26.3; 56.5; (cf. 49.8, 13)
*maha'i$^{\varepsilon}$*a' big indeed
*ga$^{\varepsilon}$*a' *ge wilī'^{i}* that one's house is there (literally, that-one there his-house [that house yonder belongs to that fellow Coyote, not to Panther, whom we are seeking]) 55.4; cf. 196.19
*bō$^{u\varepsilon}$*a' but nowadays (so it was in former days, but now things have changed) 50.1; 194.5
*ge'-hi gī$^{i\varepsilon}$*a' *yok!oya'$^{\varepsilon}$n* that-far I-for-my-part know-it (others may know more) 49.13; 154.7
*p'i'm$^{\varepsilon}$*a' *gayaū* he ate salmon (nothing else.

III. The Pronoun (§§ 103–105)

§ 103. *Independent Personal Pronouns*

The independent personal pronouns of Takelma, differing in this respect from what is found to be true of most American languages, show not the slightest etymological relationship to any of the various pronominal series found incorporated in noun and verb, except in so far as the second person plural is formed from the second person singular by the addition of the element *-p'* that we have found to be characteristic of every second person plural in the language. The forms, which may be used both as subjects and objects, are as follows:

Singular: First person, *gī* 56.10; 122.8; second person, *ma'* (*mā^a*) 26.7; 98.8; third person, *ãk'* 27.5; 156.12. Plural: First person, *gõ^{u}m* 30.5; 150.16; second person, *mãp'*; third person *āi* 49.11; *xilamana'* 27.10; 56.1

Of the two third personal plural pronouns, *āi* is found most frequently used with post-positive elements; e. g., *āyā'^{a}* JUST THEY (= *āi yā'^{a}*) 160.6; *ā'^{ɛ}ya'* THEY (= *āi-^{ɛ}a'*) 49.11. When unaccompanied by one of these, it is generally pluralized: *ā'it'an* (see § 99). The second, *xilamana'*, despite its four syllables, has not in the slightest yielded to analysis. It seems to be but little used in normal speech or narrative.

All the pronouns may be emphasized by the addition of *-wi^ɛ* (see §101), the deictic *-^{ɛ}a'* (see §102), or the post-positive particles *yā'^{a}* and enclitic *-hi* and *-s·i^ɛ* (see § 114, 1, 2, 4):

mayā'^{a} just you 196.2
ma'hi you yourself
āihi' they themselves 104.13 (cf. 152.20)
gī^{i}s·i'^{ɛ} I in my turn 47.14; 188.8; (cf. 61.9)

A series of pronouns denoting the isolation of the person is formed by the addition of *-da^{ɛ}x* or *-da'^{ɛ}xi* (= *-da^{ɛ}x* + *-hi*) to the forms given above:

gī^{i}da'^{ɛ}x(i) only I
mā^{a}da'^{ɛ}x(i) you alone
ãk'da^{ɛ}x(i) all by himself 61.7; 90.1; 142.20; 144.6
gō^{u}mda'^{ɛ}x(i) we alone
mãp'da^{ɛ}x(i) you people alone
āida'^{ɛ}x(i) they alone 138.11

The third personal pronouns are not infrequently used with preceding demonstratives:

hā'ᵉga (or *ī'daga*) *āk'da*ᵉ*x* that one by himself (*āk'* used here apparently as a peg for the suffixed element *-da*ᵉ*x* by one's self)
*hā*ᵉ*ā'it'an* and *īda*ᵉ*ā'it'an* those people

*hā*ᵉ- and *īda-*, it should be noted, are demonstrative stems that occur only when compounded with other elements.

The independent possessive pronouns (IT IS) MINE, THINE, HIS, OURS, YOURS, are expressed by the possessive forms of the substantival stem *ais·*- HAVING, BELONGING, PROPERTY: *a-is·de'k'* IT IS MINE 23.2; 154.18, 19, 20; *a-is·de'*ᵉ YOURS; *a'-is·da* HIS 23.2, 3; (156.7) and so on. These forms, though strictly nominal in morphology, have really no greater concreteness of force than the English translations MINE, THINE, and so on.

§ 104. *Demonstrative Pronouns and Adverbs*

Four demonstrative stems, used both attributively and substantively, are found: *a-*, *ga*, *īda-*, and *hā*$^{a\varepsilon}$-. Of these only *ga* THAT occurs commonly as an independent word; the rest, as the first elements of composite forms. The demonstratives as actually found are:

Indefinite. *ga* that 60.5; 61.2; 110.4; 194.4, 5
Near first. *a'ga* this 44.9; 186.4; *alī* this here 110.2; 188.20
Near second. *ī'daga* that 116.22; *īdalī* that there 55.16
Near third. *hā'*$^{a\varepsilon}$*ga* that yonder 186.5; *hā*ᵉ*lī* that over there

a- has been found also as correlative to *ga-* with the forms of *na(g)-* DO, SAY:

*ana*ᵉ*ne'x* like this 176.13 (*ga-na*ᵉ*ne'x* that way, thus 114.17; 122.20)

*ana*ᵉ*na'*ᵉ*t'* it will be as it is now cf. 152.8 (*ga-na*ᵉ*na'*ᵉ*t'* it will be that way)

perhaps also in:

*ada't'wi*ᵉ everywhere (= *ada't'* this way, hither [see § 112, 1] + *-wi'*ᵉ every) 30.12; 74.2; 120.13

īda- (independently 46.5; 47.5; 192.6) seems to be itself a compound element, its first syllable being perhaps identifiable with *ī-* HAND. *īda*ᵉ*ā'it'an* and *hā*$^{a\varepsilon}$*ā'it'an*, referred to above, are in effect the substantive plurals of *ī'daga* and *hā'*$^{a\varepsilon}$*ga*. *hā*$^{a\varepsilon}$- as demonstrative pronoun is doubtless identical with the local *hā*$^{a\varepsilon}$- YONDER, BEYOND, found as a prefix in the verb.

By far the most commonly used of the demonstratives is that of indefinite reference, *ga*. It is used as an anaphoric pronoun to refer to both things and persons of either number, also to summarize a preceding phrase or statement. Not infrequently the translation THAT or THOSE is too definite; a word of weaker force, like IT, better serves the purpose. The association of *ī'dagȧ* and *hā'^{aɛ}ga* with spacial positions corresponding to the second and third persons respectively does not seem to be at all strong, and it is perhaps more accurate to render them as THAT RIGHT AROUND THERE and THAT YONDER. Differing fundamentally in this respect from adjectives, demonstrative pronouns regularly precede the noun or other substantive element they modify:

a'ga sgi'si this coyote 108.1
ī'daga yap!a` that person
ga ^{ɛ}aldīl all that, all of those 47.12

A demonstrative pronoun may modify a noun that is part of a local phrase:

ī'daga he^{eɛ}s·ō^{u}ma`l beyond that mountain 122.22; 124.1

Corresponding to the four demonstrative pronoun-stems are four demonstrative adverb-stems, derived from the former by a change of the vowel *-a-* to *-e-*: *e-*, *ge*, *īde-*, and *he^{eɛ}-*. Just as *ga* THAT was found to be the only demonstrative freely used as an independent pronoun, so *ge* THERE, alone of the four adverbial stems, occurs outside of compounds. *e-*, *īde-*, and *he^{eɛ}-*, however, are never compounded with *ge*, as are *a-*, *īda-*, and *hā^{aɛ}-* with its pronominal correspondent *ga;* a fifth adverbial stem of demonstrative force, *me^{ɛ}* (HITHER as verbal prefix), takes its place. The actual demonstrative adverbs thus are:

Indefinite. *ge* there 64.6; 77.9; 194.11
Near first. *eme'^{ɛ}* here 112.12, 13; 194.4; *me^{ɛ}-* hither
Near second. *ī'deme^{ɛ}* right around there 46.15
Near third. *he'^{eɛ}me^{ɛ}* yonder 31.13

Of these, *me^{ɛ}-*, the correlative of *he^{eɛ}-*, can be used independently when followed by the local *-al* : *me'^{ɛ}al* ON THIS SIDE, HITHERWARDS 58.9; 160.4. *he^{eɛ}-* AWAY, besides frequently occurring as a verbal prefix, is found as a component of various adverbs:

he^{e}dada'^{ɛ}, *he^{e}da'^{ɛ}* over there, away from here, off 46.8; 194.10
he'^{ɛ}ne` then, at that time 120.2; 146.6; 162.3
he'^{ɛ}da`t` on that side, toward yonder

me$^{\varepsilon}$- can be used also with the adverb *ge* of indefinite reference preceding; the compound, followed by *di*, is employed in an interrogative sense: *geme'$^{\varepsilon}$di* WHERE? WHEN? 56.10; 100.16; 190.25. The idea of direction in the demonstrative adverbs seems less strong than that of position: *he' $^{e\varepsilon}$me$^{\varepsilon}$ baxa'$^{\varepsilon}$m* HE COMES FROM OVER THERE, as well as *he' $^{e\varepsilon}$me$^{\varepsilon}$ gini'$^{\varepsilon}$k'* HE GOES OVER THERE. *me$^{\varepsilon}$-* and *he$^{e\varepsilon}$-(hā$^{a\varepsilon}$-)*, however, often necessarily convey the notions of TOWARD and AWAY FROM the speaker: *me'$^{\varepsilon}$-yewe$^{i\varepsilon}$ hā'$^{a\varepsilon}$-yewe$^{i\varepsilon}$* HE CAME AND WENT BACK AND FORTH.

Demonstrative adverbs may take the restrictive suffix *-da$^{\varepsilon}$x* or *-daba'$^{\varepsilon}$x* (cf. *-da$^{\varepsilon}$x* with personal pronouns, §103):

eme$^{\varepsilon}$da'$^{\varepsilon}$x 114.4, 5
eme$^{\varepsilon}$daba'$^{\varepsilon}$x 114.14 } here alone

§ 105. *Interrogative and Indefinite Pronouns*

As independent words, the interrogative and indefinite stems occur with adverbs or adverbial particles, being found in their bare form only when incorporated. The same stems are used for both interrogative and indefinite purposes, a distinction being made between persons and things:

nek' who? some one 86.2, 23; 108.11
k'ai what? something 86.5; 122.3; 128.8

As independent adverb also PERHAPS:

k'ai tlümūxi perhaps he'll strike me 23.3

As interrogatives, these stems are always followed by the interrogative enclitic particle *di*, *k'ai* always appearing as *k'a-* when *di* immediately follows:

ne'k'-di who? 46.15; 86.4; 142.9
k'a'-di what? 47.9; 60.11; 86.8

k'a'i . . . di occurs with post-positive *ga$^{\varepsilon}$a'l:*

k'a'i ga$^{\varepsilon}$al di' what for? why? 71.15; 86.14; 98.8

As indefinites, they are often followed by the composite particle *-s·i$^{\varepsilon}$wa'k'di:*

nek'-s·i$^{\varepsilon}$wa'k'di I don't know who, somebody 22.8
k'ai-s·i$^{\varepsilon}$wa'k'di I don't know what, something 96.10

As negative indefinites, *nek'* and *k'ai* are preceded by the negative adverb *a'nī$^{\varepsilon}$* or *wede*, according to the tense-mode of the verb (see § 72):

a'nī^{ɛ} ne'k' nobody 63.4; 90.8, 25
a'nī^{ɛ} k'a'i nothing 58.14; 61.6; 128.23
we'de nek' ü's·ik' nobody will give it to me (cf. 98.10)
we'de k'ai ü's·dam do not give me anything

With the post-nominal *-wi'^{ɛ}* EVERY, *k'ai* forms *k'aiwi'^{ɛ}* EVERYTHING, SOMETHING. No such form as **nek'wi'^{ɛ}*, however, occurs, its place being taken by *aldīl, aldī* ALL, EVERYBODY. In general, it may be said that *k'ai* has more of an independent substantival character than *nek'*; it corresponds to the English THING in its more indefinite sense, e. g., *k'a'i gwala* MANY THINGS, EVERYTHING 96.15; 102.11; 108.8

The adverbial correspondent of *k'ai* is *gwi* HOW? WHERE? 46.2; 78.5. In itself *gwi* is quite indefinite in signification and is as such often used with the forms of *na(g)-* DO, ACT 47.11; 55.7:

gwi'di nagaīt' how are you doing? (e. g., where are you going?) 86.17; (138.25)

As interrogative, it is followed by *di:*

gwi'di how? where? 44.5; 70.6; 73.9; 190.10

as indefinite, by *-s·i^{ɛ}wa'k'di* (cf. 190.4):

gwis·i^{ɛ}wa'k'di in some way, somewhere 54.7; 96.8; 120.21 (also *gwi'hap'* somewhere)

as negative indefinite, it is preceded by *a'nī^{ɛ}* or *wede:*

a'nī^{ɛ} gwī^{i} in no way, nowhere 23.6; 62.11; 192.14
we'de gwi na't' do not go anywhere!

As indefinite relative is used *gwī'ha* WHERESOEVER 140.9, 13, 15, 19.

IV. The Adjective (§§ 106–109)

§ 106. General Remarks

Adjectives can not in Takelma without further ado be classed as nouns or verbs, as they have certain characteristics that mark them off more or less clearly from both; such are their distinctly adjectival suffixes and their peculiar method of forming the plural. In some respects they closely approach the verb, as in the fact that they are frequently preceded by body-part prefixes, also in the amplification of the stem in the plural in ways analogous to what we have found in the verb. They differ, however, from verbal forms in that they can not be predicatively used (except that the simple form of the adjective may be predicatively understood for an implied third person), nor provided with the pronominal suffixes peculiar to the verb;

a first or second personal relation is brought about by the use of appropriate forms of the copula *ei-* BE. They agree with the noun and pronoun in being frequently followed by the distinctly denominative exclusive suffix *-t'a* (see § 98) and in the fact that, when forming part of a descriptive noun, they may take the personal endings peculiar to the noun:

ts'!ixi-maha'it'ek' dog-big-my (=my horse)

As adjectives pure and simple, however, they are never found with the possessive suffixes peculiar to the noun; e. g., no such form as **maha'it'ek'* alone ever occurs. It thus appears that the adjective occupies a position midway between the noun and the verb, yet with characteristics peculiar to itself. The most marked syntactic feature of the adjective is that, unlike a qualifying noun, it always follows the modified noun, even when incorporated with it (see § 93). Examples are:

wa-iwī'ⁱ dā girl pretty 55.7; 124.5
yap!a daldi' person wild 22.14
sgi'si da-sga'xit' Coyote sharp-snouted 86.3, 20; 88.1, 11
p'im xu'm yele'x debū'ᵉ salmon dry burden-basket full (=burden-basket full of dry salmon) 75.10

Rarely does it happen that the adjective precedes, in which case it is to be predicatively understood:

gwa'la yap!a' many (were) the people 180.16 (but *ya'p!a gwala'* people many 194.10)

Even when predicatively used, however, the adjective regularly follows the noun it qualifies. Other denominating words or phrases than adjectives are now and then used to predicate a statement or command:

yū'k!alx (1) *wa'k'iᵉ* (2), *ga* (3) *gaᵉal* (4) *deligia'lt'i* (5) *gwās* (6) [as they were] without (2) teeth (1), for (4) that (3) [reason] they brought them as food (5) intestines (6) 130.22
masi'ᵉ (1) *al-nāᵃna'ᵉn* (2) *naga-ida'ᵉ* (3) [do] you in your turn (1) [dive], since you said (3) "I can get close to him" (2) 61.9

§ 107. *Adjectival Prefixes*

Probably all the body-part prefixes and also a number of the purely local elements are found as prefixes in the adjective. The material at hand is not large enough to enable one to follow out the prefixes of the adjective as satisfactorily as those of the verb; but

there is no reason to believe that there is any tangible difference of usage between the two sets. Examples of prefixes in the adjective are:

1. ***dak'-.***

   dak'-*maha'i* big on top
   dak'-*dū'l^{ɛ}s* big-headed

2. ***dā^{a}-.***

   dā^{a}-*molhi't'* red-eared 14.4; 15.12; 96.13
   dā^{a}-*ho'k'wal* with holes in ear 166.13, 19
   dā^{a}-*maha'i* big-cheeked

3. ***s·in-.***

   s·in-*ho'k'wal* with holes in nose 166.13, 18
   s·in-*hü's·gal* big-nosed 25.1; 27.5, 13; 28.6
   s·in-*p'i'l^{ɛ}s* flat-nosed

4. ***de-.***

   de-*ts·!ügü't'*, de-*ts·!ügū'^{u}* sharp-pointed 74.13; 126.18
   de-*t'ülü'^{ɛ}p'* dull
   de-^{ɛ}wini't' proceeding, reaching to 50.4

5. ***da-.***

   da-*sga'xi*(t') long-mouthed 15.13; 86.3; 88.1, 11
   da-*sguli'* short 33.17
   da-*ho'k'wal* holed 176.7
   da-*maha'i* big-holed 92.4
   da-*t!os·ō'^{u}* small-holed

6. ***gwen-.***

   gwen-*xdi'l^{ɛ}s* slim-necked
   gwen-*t'ge'm* black-necked 196.6

7. ***ī-.***

   ī-*ts·!o'p'al* sharp-clawed 14.4; 15.13; 86.3
   ī-*ge'wa^{ɛ}x* crooked-handed
   ī-*k!ok!o'k'* ugly-handed

8. ***xā^{a}-.***

   xā^{a}-*maha'i* big-waisted, wide
   xā^{a}-*xdi'l^{ɛ}s* slim-waisted, notched 71.15; 75.6

9. ***dī^{i}-.***

   dī^{i}-*k!ēlix* conceited

10. ***dī^{ɛ}-.***

    dī^{ɛ}-*maha'i* big below, big behind

dî^{s}-k!a'ls lean in rump

11. ***gwel-.***

ha-gwel-*bila'm* empty underneath, like table (cf. *ha-bila'm* empty)
gwel-ho'k'wal holed underneath 43, 9.

12. ***ha-.***

ha-*bila'm* empty (literally, having nothing inside, cf. *bila'm* having nothing 43.6, 8, 14)

13. ***sal-.***

sal-*t!a'i* narrow
sal-*ts·!una'px* straight

14. ***al-.*** (Referring to colors and appearances)

al-*t'ge'm* black 13.3; 162. 4
al-*ts·!i'l* red
al-*t'gu'i^{s}s·* white 55.2; 188.11
al-*sgenhi't'* black 92.19
al-*gwa'si* yellow
al-*t'gisa'mt'* green (participle of *t'gisi'^{s}m* it gets green)
al-*k!iyī'x-nat'* blue (literally, smoke-doing or being)
al-*k!ok!o'k'* ugly-faced 47.2; 60.5
al-*t!e^{s}s·i't'* little-eyed 94.3; (94.6, 14)
al-*t'geya'px* round
al-*t'mila'px* smooth

15. ***han-.***

han-*hogwa'l* with hole running through 56.9, 10

A few cases have been found of adjectives with preceding nouns in such form as they assume with pre-positive and possessive suffix:

da'k!oloi-ts·!il red-cheeked
gwit!īū-t!a'i slim-wristed

An example of an adjective preceded by two body-part prefixes has already been given (*ha-gwel-bila'm*). Here both prefixes are coordinate in function (cf. *ha-gwel-p!iya'*, § 95). In:

xā^{a}-sal-gwa'si between-claws-yellow (myth name of Sparrow-Hawk) 166.2

the two body-part prefixes are equivalent to an incorporated local phrase (cf. § 35, 4)

§ 108. *Adjectival Derivative Suffixes*

A considerable number of adjectives are primitive in form, i. e., not capable of being derived from simpler nominal or verbal stems. Such are:

ho's·au getting older
maha'i big 23.1; 74.15; 146.3
bus· wiped out, destroyed, used up 42.2; 140.19
dā good, beautiful 55.7; 58.7; 124.4; 146.6
t'ā hot 57.15; 186.25
p'u'n rotten 140.21
yo't'i alive ([?] *yo't'* being + enclitic *-hi*) (128.16)

and many others. A very large number, however, are provided with derivative suffixes, some of which are characteristic of adjectives per se,[1] while others serve to convert nouns and pre-positive phrases into adjectives. Some adjectival stems seem capable of being used either with or without a suffix (cf. *da-sga'xi* and *de-ts·!ügü't'* above, § 107):

maha'i and *maha'it'* big
al-gwa'si and *al-gwa'sit'* yellow

1. **-(*i*)*t'*.** Probably the most characteristic of all adjectival suffixes is *-(i)t'*, all *-t'* participles (see § 76) properly belonging here. Non-participial examples are:

al-gwa'sit' yellow
al-sgenhi't' black 92.19
al-t!e^{e}s·i't' little-eyed 94.3
(?) *ha'nt'* half ([?] cf. *han-* through) 146.22; 154.9; 192.7
t!oɪt' one-horned 46.7; 47.7; 49.3.
dā^{a}-molhi't' red-eared 14.4; 15.12; 88.2; 96.13
de-ts·!ügü't' sharp-pointed 126.18
k!ulsa't' soft (food) (cf. *k!u'ls* worm) 130.22
p!ala'k'wa-goyō'^{u}t' *eɪt'e^{e}* I am story-doctor (cf. *goyo'* shaman)

2. **-*al*.** Examples of adjectives with this suffix are:

ī-ts·!o'p'al sharp-clawed 14.4; 86.3 (cf. *de-ts·!ügü't'* sharp-pointed; for *-p'-*: *-g-* cf. § 42, 1, 6)
t!ī't'al thin
(?) *dēhal* five ([?] = being in front[2]) 150.19, 20; 182.21
s·in-ho'k'wal with holes in nose 166.13, 18; (56.9; 166.19; 176.7)
s·in-hü's·gal big-nosed 25.1; 27.5, 13; 28.6
hī'p'al flat
mi'xal how much, how many (used interrogatively and relatively) 100.8; 182.13
mixa'lha numerous, in great numbers 92.28; 94.1

[1] A few adjectives in *-am* (= *-an*) are distinctly nominal in appearance; *bila'm* HAVING NOTHING; *xila'm* SICK (but also as noun, DEAD PERSON, GHOST). It hardly seems possible to separate these from nouns like *heela'm* BOARD; *ts·!ela'm* HAIL.

[2] Cf. American Anthropologist, n. s., vol. 9, p. 266.

3. **-*di*.** A few adjectives have been found with this suffixed element:

*haps*di' little 192.6; *hā'p'*di 24.12; 60.15; 61.5 (cf. *hā^{a}pxi'* child 128.16)
*yap!a dal*di' wild man (cf. *dal-* in the brush) 22.14
*gama'x*di raw 94.3, 6; 144.5; 182.4
*gwel*di' finished (cf. *gwel-* leg) 34.1; 79.8; 94.18

4. **-*ts!*- (-$^{\epsilon}$*s*).** In a small number of adjectives this element is doubtless to be considered a suffix:

*ī'l*ts!*ak*'^{w} bad, ugly 182.1; 186.22; 198.4 (cf. pl. *īl$^{\epsilon}$a'lsak*'^{w})
*s·in-p'i'l$^{\epsilon}$*s flat-nosed
*xā^{a}-xdi'l$^{\epsilon}$*s slim-waisted 71.15; 75.6 (cf. inferential passive *xā-ī-xdi'lxdalk'am* they have been notched in several places)

A few adjectives in *-s*, evidently morphologically connected with the scattering nouns in *-s*, also occur:

*gūm*s blind 26.14
*bāl*s long 14.5; 33.16; 158.1
s·uñs· thick 90.3

5. **-(*a*)*x*.** This suffix disappears in the plural (see below, § 109), so that no room is left for doubt as to its non-radical character. Whether it is to be identified with the non-agentive *-x* of the verb is somewhat uncertain, but that such is the case is by no means improbable; in some cases, indeed, the adjective in *-x* is connected with a verb in *-x*. The *-a'px* of some of the examples is without doubt composed of the petrified *-b-* found in a number of verbs (see § 42, 1) and the adjectival (or non-agentive) *-x*.

*al-t'gey*a'px round (cf. *al-t'geye'px* it rolls)
*sal-ts·!un*a'px straight
*da-ts·!ām*x sick 90.12, 13, 21; 92.5; 150.16
*al-t'mil*a'px smooth
*da-p'o'a$^{\epsilon}$*x crooked (cf. *p'owo'$^{\epsilon}$x* it bends)
*ī-ge'wa$^{\epsilon}$*x crooked-handed

More transparently derivational in character than any of those listed above are the following adjectival suffixes:

6. **-*gwat'*** HAVING. Adjectival forms in *-gwa't'* are derived partly by the addition of the adjectival suffix *-(a)t'* to third personal reflexive possessive forms in *-'t'gwa* (*-xagwa*), or to palatalized passive participial forms in *-'k'^{w}*, themselves derived from nouns (see § 77), partly by the addition of *-gwa't'* to nouns in

their pre-pronominal form (*-x*). The fact that these various *-gwa'ṭ'* forms, despite their at least apparent diversity of origin, clearly form a unit as regards signification, suggests an ultimate identity of the noun reflexive *-gwa* (and therefore verbal indirect reflexive *-gwa-*) with the passive participial *-k'ʷ*. The *-gwa-* of forms in *-x-gwat'* is not quite clear, but is perhaps to be identified with the comitative *-gwa-* of the verb. An adjective like *yū'k!al-x-gwat'* TEETH-HAVING presents a parallelism to a verbal participle like *dak'-līm-x-gwat'* WITH (TREE) FALLING OVER ONE (from aorist *dak'-limīm-x-gwa-deᵉ* I AM WITH IT FALLING OVER ME, see § 46) that is suggestive of morphologic identity. Examples of *-gwa'ṭ'* adjectives are:

*waya'uxag*wat' having daughter-in-law 56.10 (cf. *waya'uxagwa* her own daughter-in-law)

*t'gwana't'*gwat' slave-having (cf. *t'gwana't'gwa* his own slave)

*Da-t'ān-elā'ᵃt'*gwat'[1] Squirrel-Tongued (literally, in-mouth squirrel his-tongue having [name of Coyote's daughter]) 70.6; 72.4; 75.11

*ni'xag*wat' mother-having (cf. *ni'xak'ʷ* mothered)

*me'xag*wat' father-having (cf. *me'xak'ʷ* fathered)

*k'eⁱᵉlè'p'igig*wat' wife-having (cf. *k'eⁱᵉlè'p'igik'ʷ* wived 142.6)

*gū'ᵘxg*wa'ṭ' wife-having 128.4 (cf. *gū'ᵘ-x-de'k'* my wife 142.9)

*dagax*gwa'ṭ' head-having (cf. *da'g-ax-dek'* my head 90.13)

*ts'!u'lx*gwat' having Indian money (cf. *ts'!u'lx* Indian money 14.13)

A form with *-gwat'* and the copula *ei-* (for persons other than the third) takes the place in Takelma of the verb HAVE:

ts'!u'lxgwat' eīt'eᵉ I have money (literally money-having or moneyed I-am

ts'!ulx-gwa'ṭ' he has money

Aside from the fact that it has greater individuality as a distinct phonetic unit, the post-positive *wa'k'ⁱᵉ* WITHOUT is the morphologic correlative of *-gwat'* HAVING:

dagax wa'k'ⁱᵉ eīt' head without you-are

da'gaxgwat' eīt' head-having you-are

Similarly:

nixa wa'k'ⁱᵉ eīt'eᵉ mother without I-am

ni'xagwat' eīt'eᵉ mother-having I-am

[1] The fact that this form has a body-part prefix (*da-* MOUTH) seems to imply its verbal (participial) character. *-t'gwat'* in it, and forms like it, may have to be analyzed, not as *-t'gwa* HIS OWN+*-t'*, but rather as *-t'* HIS+*-gwa-* HAVING+*-t'*. In other words, from a noun-phrase *t'ān elā'ᵃ* (older *elā'at'*) SQUIRREL HIS-TONGUE may be theoretically formed a comitative intransitive with prefix: **da-t'ān-elā'at'-gwadeᵉ* I AM HAVING SQUIRREL'S TONGUE IN MY MOUTH, of which the text-form is the participle. This explanation has the advantage over the one given above of putting forms in *-'t'gwat'* and *-xgwat'* on one line; cf. also 73.15.

7. ***-imik!i.*** A few adjectives have been found ending in this suffix formed from temporal adverbs:

*hop!ē^{ɛ}n*imik!i (men) of long ago 168.1 (*hop!ē^{ɛ}n* long ago 58.4, 7, 11)
bõ^{uɛ}ĩ'mik!i (people) of nowadays (*bõ^{u}* now 188.8; 194.5)

8. ***-(i)k!i.*** This suffix, evidently closely related to the preceding one, forms adjectives (with the signification of BELONGING TO, ALWAYS BEING) from local phrases. Examples are:

*ha-wilī'y*ik!i belonging to good folks, not "common" (from *ha-wilī* in the house)
*xā^{a}-bēm*ik!i^{ɛ} being between sticks
ha-bami'sik!i^{ɛ} dwelling in air
*xā^{a}-da'n*ik!i belonging between rocks (e. g., crawfish)
*dak'-p!i'ya*k!i^{ɛ} staying always over the fire
*ha-p!i'ya*k!i^{ɛ} belonging to fire

9. ***-^{ɛ}xi.*** A few adjectival forms in *-^{ɛ}xi*, formed from local phrases, seem to have a force entirely coincident with adjectives in *-(i)k!i:*

*ha-p!i'ya^{ɛ}*xi belonging to fire
*ha-xi'ya^{ɛ}*xi mink (literally, always staying in the water [from *ha-xiya'* in the water 33.4])

10. ***-^{ɛ}ī'^{ĩ}xi.*** This suffix seems to be used interchangeably with *-(i)k!i* and *-^{ɛ}xi*. Examples are:

*ha-bami'sa^{ɛ}*ī'^{ĩ}xi^{ɛ} belonging to the air, sky
*xā^{a}-da'ni^{ɛ}*ī'^{ĩ}xi^{ɛ} belonging between rocks
*ha-wili^{ɛ}ī'^{ĩ}*xi belonging to the house
*ha-xi'ya^{ɛ}*ī'^{ĩ}xi belonging to the water
*ha-p!iya^{ɛ}*ī'^{ĩ}xi belonging to fire

The following forms in *-^{ɛ}ī'^{ĩ}xi*, not derived from local phrases, doubtless belong with these:

*ge^{ɛ}*ī'^{ĩ}xi belonging there 160.24
*goyo^{ɛ}*ī'^{ĩ}xi belonging to shamans (used to mean: capable of wishing ill, supernaturally doing harm, to shamans) 170.11

§ 109. *Plural Formations*

A few adjectives form their plural or frequentative by reduplication:

Singular	Plural
de-bü'^{üɛ} full 49.14; 116.5	*de-bü^{ɛ}ba'x* (dissimilated from *-bü^{ɛ}ba^{ɛ}x*) 122.17
ī'lts!ak'^{w} bad 182.1; 198.4	*īl^{ɛ}a'lsak'^{w}* (dissimilated from *īl^{ɛ}alts!-*)
maha'i large 23.1; 74.15	*mahmī* 32.15; 49.10; 130.4

Of these, the first two are clearly verbal in type. The probably non-agentive *-x* of *de-bü^{ɛ}ba'x* (also singular *de-bü'$^{ü ɛ}$x* from **de-bü'^{ü}k!-x* [cf. *de-bü'^{ü}k!in* I SHALL FILL IT]) and the apparently passive participial *-ak'^{w}* of *ī'lts!ak'^{w}* strongly suggest that the first two of these adjectives are really adjectivally specialized verb-forms. *mahmī* is altogether irregular in type of reduplication. *t!os·ō'^{u}* LITTLE 56.15; 74.16 forms its plural by the repetition of the second consonant after the repeated vowel of the singular: *dak!oloi-t!os·ū's·gwat'* HE HAS SMALL CHEEKS. In regard to *t'āt'* 170.18, the plural of *t'ā* HOT 57.15, it is not certain whether the *-t'* is the repeated initial consonant, or the *-t'* characteristic of other adjective plurals.

Most adjectives form their plural by repeating after the medial consonant the vowel of the stem, where possible, and adding to the amplified stem the element *-it'* (probably from *-hit'*, as shown by its treatment with preceding fortis), or, after vowels, *-t'it'*; a final non-radical *-(a)x* disappears in the plural. *ho's·au* GETTING BIGGER (with inorganic *-a-*) forms its plural by the repetition of the stem-vowel alone, *hos·ō^{u}* 156.11; 158.11; similar is *du^{ɛ}ū'* 58.10 which seems to be the plural of *dū* PRETTY 58.8. *yo't'i* ([?] *yot'-hi*) ALIVE forms the plural *yot'i'hi* ([?] *yot'i-hi*) 128.16. Examples of the peculiarly adjectival plural in *-(t')it'* are:

Singular	Plural
al-t'geya'px round	*al-t'geye'p'it'*
al-t'mila'px smooth	*al-t'mili'p'it'*
sal-ts·!una'px straight	*sal-ts·!u'nup'it'*
sal-t!a'i narrow	*sal-t!a'yat'it'*
da-p'o'a^{ɛ}x crooked (= *-ak!-x*)	*gwit'-p'o'o^{ɛ}k'it'* crooked-armed
ī-ge'wa^{ɛ}x crooked-handed (= *-ak!-x;* cf. aorist *gewe-k!aw-* carry [salmon] bow-fashion)	*ī-ge'we^{ɛɛ}k'it'*
de-ts·!ügü't' sharp-pointed 126.18	*de-ts·!ügūhit'*
de-t'ülü'^{ɛ}p' dull	*de-t'ülü'^{ɛ}p'it'*
al-ts·!i'l red	*da'k!oloi-ts·!i'lit'it'* he has red cheeks
al-t'gu'^{iɛ}s· white 55.2; 188.11	*da'k!oloi-t'guyu^{ɛ}s·it'* he has white cheeks
al-t'ge'm black 13.3; 162.4	*da'k!oloi-t'ge'met'it'* he has black cheeks
bāls long 14.5; 15.12, 15	*s·inīxdā^{a}t'an bā^{a}la'sit'* their noses are long

That these plurals are really frequentative or distributive in force is illustrated by such forms as *da'k!oloi-ts·!i'lit'it'* RED-CHEEKED, which has reference not necessarily to a plurality of persons affected, but to the frequency of occurrence of the quality predicated, i. e., to the redness of both cheeks.

V. Numerals (§§ 110, 111)

§ 110. Cardinals

	Cardinals	Adverbs
1.	*mī'$^{i\varepsilon}$sga$^{\varepsilon}$* 13.2; 192.8; *mī'$^{\varepsilon}$s* 188.9	*mü$^{ü\varepsilon}$xda'n* once 182.20; 188.13
2.	*gā'$^{\varepsilon}$m* 22.7; 110.11 *gā'p!ini'*[1] 55.7,12; 116.1	*gā'$^{\varepsilon}$mûn* twice
3.	*xi'bini'* 150.8	*xi'nt'*
4.	*gamga'm* 148.5; 184.17	*gamga'man*
5.	*dēhal* 150.19, 20; 182.21	*dēhaldan*
6.	*ha$^{\varepsilon}$īmī'$^{\varepsilon}$s* 150.12	*ha$^{\varepsilon}$īmi'ts!ada'n*
7.	*ha$^{\varepsilon}$īgā'$^{\varepsilon}$m*	*ha$^{\varepsilon}$īgā'$^{\varepsilon}$mada'n*
8.	*ha$^{\varepsilon}$īxi'n*	*ha$^{\varepsilon}$īxinda'n*
9.	*ha$^{\varepsilon}$īgo'* 150.14	*ha$^{\varepsilon}$īgō^{u}gada'n*
10.	*i'xdīl* 13.1; 150.5; 182.22	*ixdīlda'n*
11.	*i'xdīl mī'$^{i\varepsilon}$sga$^{\varepsilon}$ gada'k'* ten one on-top-of	
12.	*i'xdīl gā'$^{\varepsilon}$m gada'k'*	
20.	*yap!ami'$^{\varepsilon}$s* 182.23	
30.	*xi'n ixdīl*	
40.	*gamga'mûn ixdī'l*	
50.	*dēhaldan ixdī'l*	
60.	*ha$^{\varepsilon}$īmi'ts!adan ixdī'l*	
70.	*ha$^{\varepsilon}$īgā'$^{\varepsilon}$madan ixdī'l*	
80.	*ha$^{\varepsilon}$īxi'ndan ixdī'l*	
90.	*ha$^{\varepsilon}$īgogada'n ixdī'l*	
100.	*t!eimi'$^{\varepsilon}$s* 23.2, 4, 9, 12, 13	
200.	*gā'$^{\varepsilon}$mûn t!eimi'$^{\varepsilon}$s*	
300.	*xin t!eimi'$^{\varepsilon}$s*	
400.	*gamga'mûn t!eimi'$^{\varepsilon}$s*	
1,000.	*i'xdīldan t!eimi'$^{\varepsilon}$s*	
2,000.	*yap!ami'ts!adan t!eimi'$^{\varepsilon}$s*	

mī'$^{i\varepsilon}$sga$^{\varepsilon}$ is the usual uncompounded form of ONE. In compounds the simpler form *mī'$^{\varepsilon}$s* (stem *mīts!-*) occurs as the second element:

ha$^{\varepsilon}$īmi'$^{\varepsilon}$s six (=one [finger] in the hand)
yap!ami'$^{\varepsilon}$s twenty (=one man)

[1] Often heard as *gā'p$^{\varepsilon}$ini'* 55.2, 5.

t!eimi'ᵉs one hundred (probably = one male [*t!ī'-*])
meᵉl t'gāᵃ-mi'ᵉs crows earth-one (= land packed full of crows) 144.9, 11, 12, 13
deᵉmī'ᵉs in-front-one (= marching in single file)
almi'ᵉs all together 92.23, 24; 190.17

Of the two forms for TWO, *gā'p!ini`* seems to be the more frequently used, though no difference of signification or usage can be traced. *gā'p!ini`* TWO and *xi'bini`* THREE are evident compounds of the simpler *gā'ᵉm* and *xi`n* (seen in *haᵉīxi`n* EIGHT) and an element *-bini`* that is perhaps identical with *-bini`* of *ha'-bini`* IN THE MIDDLE. *gamga'm* FOUR is evidently reduplicated from *gā'ᵉm* TWO, the falling accent of the second syllable being probably due to the former presence of the catch of the simplex. An attempt has been made[1] to explain *dēhal* FIVE as an adjectival form in *-al* derived from *deᵉ-* IN FRONT. The numerals SIX, SEVEN, EIGHT, and NINE are best considered as morphologically verbs provided with the compound prefix *haᵉī-* IN THE HAND (see § 35, 4), and thus strictly signifying ONE (FINGER) IS IN THE HAND; TWO, THREE, FOUR (FINGERS) ARE IN THE HAND. No explanation can be given of *-go`* in *haᵉīgo`* NINE, except that it may be an older stem for FOUR, later replaced, for one reason or another, by the composite *gamga'm* TWO + TWO. *i'xdīl* TEN is best explained as compounded of *ī-x-* HAND (but why not *īūx-* as in *īūx-de`kᵉ* MY HAND?) and the dual *-dī`l*, and as being thus equivalent to TWO HANDS.

It thus seems probable that there are only three simple numeral stems in Takelma, *mī'ⁱᵉs* ONE, *gā'ᵉm* TWO, and *xi`n* THREE. All the rest are either evident derivations from these, or else (*dēhal* probably and *i'xdīl* certainly) descriptive of certain finger-positions. While the origin of the Takelma system may be tertiary or quinary (if *-go`* is the original stem for FOUR and *dēhal* is a primary element), the decimal feeling that runs through it is evidenced both by the break at ten and by the arrangement of the numerals beyond ten.

The teens are expressed by TEN ONE ABOVE (i. e., ten over one), TEN TWO ABOVE; and so on. *gaᵉa`l* THERETO may be used instead of *gada`kᵉ* OVER. Twenty is ONE MAN, i. e., BOTH HANDS AND FEET. One hundred can be plausibly explained as equivalent to ONE MALE PERSON.[2] The other tens, i. e., thirty to ninety inclusive, are expressed by

[1] American Anthropologist, loc. cit., where FIVE is explained as BEING IN FRONT, on the basis of the method of fingering used by the Takelma in counting.
[2] Loc. cit.

multiplication, the appropriate numeral adverb preceding the word for ten. *xi'n ixdīl* THIRTY, however, uses the original cardinal *xin*, instead of the numeral adverb *xint'*. The hundreds (including two hundred and one thousand) are similarly expressed as multiplications of one hundred (*t!eimi'$^{\varepsilon}$s*), the numeral adverbs (*xin* instead of *xi'nt'* in three hundred) preceding *t!eimi'$^{\varepsilon}$s*. Numerals above one thousand (=10×100) can hardly have been in much use among the Takelma, but can be expressed, if desired, by prefixing the numeral adverbs derived from the tens to *t!eimi'$^{\varepsilon}$s;* e. g., *dēhaldan ixdīldan t!eimi'$^{\varepsilon}$s* 5×10×100=5,000.

As far as the syntactic treatment of cardinal numerals is concerned, it should be noted that the plural of the noun modified is never employed with any of them:

wa-iwī'^{i} gāp!ini girl two (i. e., two girls) 55.2, 5, 7, 12 (*wa-iwī'^{i}-t'an* girls 56.11)
mologolā'p'a gā'p!ini old-woman two 26.14 (*mologolā'p'ak!an* old women 138.10)
hā'p'da gā'p!ini his child two 154.17 (*hā'pxda* his children)

Like adjectives, attributive numerals regularly follow the noun.

§ 111. Numeral Adverbs

The numeral adverbs denoting SO AND SO MANY TIMES are derived from the corresponding cardinals by suffixing *-an* (often weakened to *-ûn*) to *gā'$^{\varepsilon}$m* TWO and its derivative *gaṃga'm* FOUR; *-t'*, to *xin* THREE; *-da'n*, to other numerals (*-ada'n*, to those ending in *-$^{\varepsilon}$m* and *-ts!-* = *-$^{\varepsilon}$s*). *ha$^{\varepsilon}$īgā'$^{\varepsilon}$m* SEVEN and *ha$^{\varepsilon}$īxi'n* EIGHT, it will be observed, do not follow *gā'$^{\varepsilon}$m* and *xin* in the formation of their numeral adverbs, but add *-(a)da'n*.

It is not impossible that *mü$^{\ddot{u}\varepsilon}$x-* in *mü$^{\ddot{u}\varepsilon}$xda'n* ONCE is genetically related and perhaps dialectically equivalent to *mī$^{i\varepsilon}$s-*, but no known grammatic or phonetic process of Takelma enables one to connect them. *ha$^{\varepsilon}$īgō^{u}gada'n* NINE TIMES seems to insert a *-ga-* between the cardinal and the adverbial suffix *-dan*. The most plausible explanation of the form is its interpretation as NINE (*ha$^{\varepsilon}$īgo'*) THAT (*ga*) NUMBER-OF-TIMES (*-da'n*), the demonstrative serving as a peg to hang the suffix on.

From the numeral adverbs are derived, by prefixing *ha-* IN, a further series with the signification of IN SO AND SO MANY PLACES:

ha-gā'$^{\varepsilon}$mûn in two places
ha-gamgama'n 176.2, 3 in four places
ha-ha$^{\varepsilon}$īgō^{u}gada'n in nine places

Cardinals with prefixed *ha-* are also found, apparently with an approximative force, e. g., *ha-dēhal* ABOUT FIVE 194.2.

No series of ordinal numerals could be obtained, and the probability is strong that such a series does not exist. *debi'n* occurs as FIRST (e. g., *wili debi'n-hi* FIRST HOUSE), but may also mean LAST 49.2; 150.15, a contradiction that, in view of the probable etymology of the word, is only apparent. *debi'n* is evidently related to *ha-bini'* IN THE MIDDLE, and therefore signifies something like IN FRONT OF THE MIDDLE; i. e., AT EITHER END of a series, a meaning that comports very well with the renderings of both FIRST and LAST. It is thus evident that no true ordinal exists for even the first numeral.

VI. Adverbs and Particles (§§ 112–114)

A very large number of adverbs and particles (some of them simple stems, others transparent derivatives, while a great many others still are quite impervious to analysis) are found in Takelma, and, particularly the particles, seem to be of considerable importance in an idiomatically constructed sentence. A few specifically adverbial suffixes are discernible, but a large number of unanalyzable though clearly non-primitive adverbs remain; it is probable that many of these are crystallized noun or verb forms now used in a specialized adverbial sense.

§ 112. *Adverbial Suffixes*

Perhaps the most transparent of all is:

1. ***-da't'.*** This element is freely added to personal and demonstrative pronouns, adverbs or verbal prefixes, and local phrases, to impart the idea of direction from or to, more frequently the former. Examples of its occurrence are:

gī^{i}da't' in my direction (*gī* I)
*wadē*dat' from my side (*wadē* to me)
*a*da't' on, to this side 112.17; 144.2
*ī'da*da't' in that direction, from that side (*īda-* that)
hā'$^{a\varepsilon}$da't' from yonder (*hā*$^{a\varepsilon}$- that yonder)
*gwi'*dat' in which direction? 190.18 (*gwi* how? where?)
*ge*da't' from there 144.8
eme'$^{\varepsilon}$dat' from here
me'$^{\varepsilon}$da't' hitherwards 32.10, 11; 55.3 (*me*$^{\varepsilon}$- hither)
he'$^{\varepsilon}$dat' thitherwards (*he*$^{\varepsilon}$- away)
nõ^{u}da't' from down river 23.9 (*nõ*^{u} down river)

*han*da'ţ' (going) across (*han-* across) 30.4; 31.16
*hā^{a}nda*da'ţ' from across (the river) (*ha'nda* across it) 112.17; 114.17
*habam*da'ţ' from above (*ha-* in + *bam-* up)
*haxiya'*dat' from water on to land (*ha-xiya'* in the water)
*dak'-wilī'^{i}*dat' from on top of the house (*dak'-wilī* over the house) 27.5; 62.5
*gwen-t'gā^{a}- bo'k'danda*da'ţ' from the east (*gwen-t'gā^{a}-bo'k'danda* east) 144.23; (cf. 146.1)

More special in use of *-dat'* are:

*honõx*dat' last year (*honõx* some time ago)
*dewe'nxa*da'ţ' day after to-morrow (*dewe'nxa* to-morrow)
de^{e}da'ţ' first, before others 110.5

2. ***-xa.*** A fairly considerable number of adverbs, chiefly temporal in signification, are found to end in this element. Such are:

*hō^{u}*xa' yesterday 76.9; 98.21
*da-hō^{u}*xa' this evening 13.3; 16.15; 63.8; 78.4
*dabalni'*xa for a long time (cf. *bāl-s* long and *lep'ni'xa* in winter) 54.4; 108.16
*ya'*xa continually, only, indeed (cf. post-positive *yā'^{a}* just) 54.5; 63.3; 78.10
*dewe'n*xa to-morrow 77.14; 112.15; 130.17; 194.1
*dap!a'*xa toward daylight, dawn 45.4
*de'^{e}*xa henceforth (cf. *de-* in front of) 196.5
*sama'*xa in summer (cf. *sa'ma* summer 188.13; verb-stem *sam-g-* be summer 92.9) 162.16; 176.13, 15
*lep'ni'*xa in winter 162.20; 176.15
*de-bixi'm*sa ([?]=*-t-xa*) in spring ([?] cf. *bi'xal* moon)
*da-yō^{u}ga'm*xa in autumn 186.3
*ts·!i'*s·a ([?]=*-t-xa*) at night 182.20
*xamī'^{i}*xa by the ocean (cf. *xam-* into water) 21.1; 55.1
(?) *bō^{u}-nē*xa-*da^{ε}* soon, immediately (cf. *bō^{u}* now and *ne^{e}* well! or *na-*[1] do) 90.10; 108.2
(?) *da^{ε}ma'*xau far away (for *da^{ε}-* cf. *da^{ε}-o'l* near) 14.3; 188.21; 190.6

In *lep'ni'x* 90.6, a doublet of *lep'ni'xa, -xa* appears shortened to *-x;* this *-x* may be found also in *honõx* SOME TIME AGO (cf. *hono'^{ε}* AGAIN). Here perhaps belongs also *da-yawa'nt!i-xi* (adjectival?) IN HALF, ON ONE SIDE (OF TWO) 94.3.

It will be noticed that a number of these adverbs are provided with the prefix *da-* (*de-* before palatal vowels, cf. § 36, 2), the application of which, however, in their case, can not be explained.

3. ***-ne'.*** A number of adverbs, chiefly those of demonstrative signification, assume a temporal meaning on the addition of *-ne'*, a

[1] See Appendix A, p. 290.

catch intervening between the suffix and the stem. Etymologically *-ne* may be identical with the hortatory particle *ne^{e}* WELL, LET (US) ——.

Adverb	Temporal
he$^{e\varepsilon}$- there yonder	*he$'^{\varepsilon}$ne`* then, at that time 45.6; 49.14
ge there 14.3; 15.5, 12	*ge$^{\varepsilon}$ne`* so long 92.10; 198.9
me$^{\varepsilon}$- hither	*me$^{\varepsilon}$ne^{e}* at this time 24.14 (cf. also *ma$^{\varepsilon}$nai* around this time 178.4)
e'me$^{\varepsilon}$ here 31.3; 192.9	*eme$^{\varepsilon}$ne (yā'^{a}-hi)* (right) here ([?] = now) 190.23
gwi how? 46.2; 78.5	*gwi'$^{\varepsilon}$ne* some time (elapsed), how long? 44.2; 48.9; 148.7

To this set probably belong also:

xū$^{\varepsilon}$n, xū'$^{\varepsilon}$ne` at night, night 45.3; 46.12; 48.10; 160.22
bē$^{\varepsilon}$n by day 166.2 (cf. *bē* sun, day)
hop!ē$^{\varepsilon}$n long ago 58.4; 86.7, 9; 192.15; 194.4
xā$^{\varepsilon}$newi'$^{\varepsilon}$ sometimes 132.25
bō^{u}nē now, yet 130.23 (cf. *bō^{u}* now)

ī'de$^{\varepsilon}$ne`*, which the parallelism of the other forms in *-ne` with demonstrative stems leads one to expect, does not happen to occur but probably exists. Curiously enough, *he'$^{\varepsilon}$ne* not infrequently may be translated as LIKE, particularly with preceding *k`ai* (§ 105):

k`a'i he$^{\varepsilon}$ne bēm something like wood 186.11
k`ai gwala he'$^{\varepsilon}$ne like various things 196.3

A number of other adverbial suffixes probably occur, but the examples are not numerous enough for their certain determination. Among them is *-ada`*:

nō^{u}gwada`* some distance down river 54.2 (cf. *nō$^{u}$* down river and *nō$^{u}$gwa` down river from 75.14)
hinwada`* some distance up river 56.4; 100.18; 102.4 (cf. *hina`u up river and *hinwa`* up river from 77.1)
ha'nt`ada* across the river 98.5; 192.3; (cf. *ha`nt` across, in half)

Several adverbs are found to end in *-(da)da$^{\varepsilon}$*, perhaps to be identified with the *-da$^{\varepsilon}$* of subordinate verb-forms:

bō^{u}-nēxada$^{\varepsilon}$ immediately 90.10, 12; 108.2
he^{e}(da)da'$^{\varepsilon}$ away from here 92.5; 172.5; 194.10; 196.11

gwel-$^{\varepsilon}$wāk`wi$^{\varepsilon}$* EARLY IN THE MORNING 44.1; 63.9; 77.14; 190.1 seems to be a specialized verb-form in *-k`i$^{\varepsilon}$ IF, WHENEVER. It is possible that there is an adverbial *-t`* suffix:

gwe`nt` in back, behind 94.15
ha`nt` across, in half 146.22; 154.9; 192.7

It may be that this *-t'* has regularly dropped off when final in polysyllables:

da^{e}o'l near 100.15; but *da^{e}o'lt'i* (=*da^{e}o'l*[*t'*]+*-hi*) 136.7

§ 113. Simple Adverbs

The simple adverbs that are closely associated with demonstrative stems have been already discussed (§ 104). A number of others, partly simple stems and partly unanalyzable derivatives, are listed here, such as have been already listed under adverbial suffixes not being repeated.

1. Local adverbs:

nõ^{u} down river 17.9; 63.1; 124.15
nõ'^{ue}s· next door ([?] related to *nõ^{u}*) 17.4; 188.2
hina'u up river ([?] compounded with *nõ^{u}*) 22.7; 23.1; 61.13; 192.14
da^{e}-o'l near (cf. *-t'*, § 112, and see § 93) 100.15; 102.6; 126.2
dihau(yā'^{a}) last of all (see § 93) 120.18
gī'^{ie}wa far off 48.8; 192.1
aba'i in the house (cf. § 37, 14) 28.8; 43.13; 140.5
hā'^{ae}ya' on both sides, mutually (cf. § 37, 5) 172.10; 176.6

2. Temporal adverbs:

bõ^{u} now, to-day 49.13; 50.1; 56.11; 61.11
ha'wi still, yet (cf. § 37, 9) 78.1; 126.21; 192.8; 198.11
bō^{u}nē hawi / *ha'wi bō^{u}ne'* } soon 128.18
olo'm (*ulu'm*) formerly, up to now 43.11; 63.1; 71.15; 166.2
hemdi' when? 132.24; *a'nī^{e} hem* never
mī^{i} now, already (often proclitic to following word) 22.4; 63.1; 190.9
ganē then, and then (often used merely to introduce new statement) 47.14; 63.1, 2, 16

A noteworthy idiomatic construction of adverbs or phrases of temporal signification is their use as quasi-substantives with forms of *lā^{a}lī^{i}-* BECOME. Compare such English substantivized temporal phrases as AFTERNOON. Examples are:

sama'xa lãp'k' in-summer it-has-become 92.11
haye^{e}wa'xdā^{a}da lā^{a}lē' in-their-returning it-became (=it became time for them to return) 124.15
habēbini diha'-uda lā^{a}lī't'a^{e} noon after-it when-it-became (=when it was afternoon) 186.8

3. Negative and affirmative adverbs:

hīt' no 134.19, 21
ha'-u yes 24.13; 64.1; 170.12
a'nīᵉ not (with aorist) 23.3, 6; 64.3; 78.1
a'ndi not? 56.10; 90.26 (e. g., *a'ndi k'ai* are there not any?) 56.8
nīⁱ not? (with following subordinate): *s·-nī'ⁱ naga'sbindaᵉ* didn't I tell you? 136.10
naga-di' do (you) not? 116.12
wede not (with inferential and potential) 25.13; 122.22, 23

4. Modal adverbs:

hono'ᵉ (rarely heard as *honõᵉn* 74.8; this is very likely its original form, cf. *-ᵉn* for *-ᵉne*, § 112, 3) again, too, also 22.4; 58.5; 134.1
ganga only 54.4; 94.5; *ganga'-hi* anyhow 94.8; 142.13; *ganga-s·i'ᵉ* just so, for fun
wana' even 47.10; 61.3; 71.8; 76.4; 186.2
yaxā'ᵃwa however (cf. *yaxa*, § 114, 9; for *-wa* cf. *gī'ⁱᵉwa*, § 113, 1) 72.11; 74.15
ha'ga explanatory particle used with inferential 28.10; 45.11 (e. g., *ga haga wa'laᵉ yu'k'* so that one was really he 170.8)
nak!a' in every way, of all sorts (e. g., *k'adi' nak!a ᵉa'nīᵉ īgī'ⁱnan* what kind was not taken?, i. e., every kind was taken 60.11)
yewē perhaps 136.23; 180.8; 196.18
s·oᵉ, *s·ōᵘᵉ* perfectly, well 136.20; 166.1 (e. g., *s·o'ᵉ deᵉgwa'lt'gwīⁱp'* take good care of yourself! 128.24)
amadi' (*s·iᵉ*) would that! 142.10 (e. g., *amadi's·iᵉ t!omoma'ᵉn* I wish I could kill him; *amadi loho'ⁱᵉ* would that he died! 196.2)
wi'saᵉm (cf. *wis*, § 114, 8) I wonder if 150.2, 3 (e. g., *mīⁱ wi'saᵉm ya'ᵉ* I wonder if he went already)

It is a characteristic trait of Takelma, as of many other American languages, that such purely modal ideas as the optative (WOULD THAT!) and dubitative (I WONDER IF) are expressed by independent adverbs without modification of the indicative verb-form (cf. further *wiᵉobiha'n yeᵉwa'ᵉt' wi'saᵉm* MY-ELDER-BROTHERS THEY-WILL-RETURN I-WONDER-IF 150.2, 3).

Several of the adverbs listed above can be used relatively with subordinates, in which use they may be looked upon as conjunctive adverbs:

bõᵘ-gwan[1] (1) *yāᵃnia'-udaᵉ* (2) *bai-yeweya'k'ʷ* (3) as soon as (1) they went (2), she took him out again (3) 128.20
yewē (1) *xebeᵉyagwanaga'm* (2) *yewē* (3) *wā'ᵃda* (4) *hiwili'ᵘᵉ* (5) perhaps (1) that we destroy him (2), perhaps (3) he runs (5)

[1] Probably compounded of *bõᵘ* NOW and *gan(i)* NOW, THEN, AND THEN.

to her (4) (=should we destroy him, perhaps he would run to her)

waya' (1) *he^{s}ne'* (2) *de-k'iwi'k'auk'wanma^{s}* (3) *ga* (4) *na^{s}nãk'ik'* (5) just as (2) a knife (1) is brandished (3), that (4) he did with it (5) 172.12 (cf. *he^{s}ne'* in its meaning of LIKE, §112, 3)

§ 114. Particles

By particles are here meant certain uninflected elements that have little or no meaning of their own, but that serve either to connect clauses or to color by some modal modification the word to which they are attached. They are never met with at the beginning of a clause or sentence, but occur only postpositively, generally as enclitics. Some of the elements listed above as modal adverbs (§ 113, 4) might also be considered as syntactic particles (e. g., *wana, ha'ga, nak!a'*, which never stand at the beginning of a clause); these, however, show no tendency to be drawn into the verb-complex. Whenever particles qualify the clause as a whole, rather than any particular word in the clause, they tend to occupy the second place in the sentence, a tendency that, as we have seen (p. 65), causes them often to be inserted, but not organically incorporated, into the verb-complex. The most frequently occurring particles are those listed below:

1. ***yā'^{a}*** JUST. This element is not dissimilar in meaning to the post-nominal emphasizing *-$^{s}a'$* (§ 102), but differs from it in that it may be embedded in the verb-form:

ī-yā'^{a}-sge^{e}t'sga't' he just twisted it to one side 31.5

It only rarely follows a verb-form, however, showing a strong tendency to attach itself to denominating terms. Though serving generally to emphasize the preceding word, it does not seem to involve, like *-$^{s}a'$*, the idea of a contrast:

xā^{a}-xo yā'^{a} right among firs (cf. 94.17)
he^{s}ne yā'^{a} just then, then indeed 63.13; 128.22; 188.1, 18
dõ^{u}mxbin yā'^{a} I shall just kill you 178.15

It has at times a comparative force:

gī^{i} yā'^{a} na^{s}nada'^{s} you will be, act, just like me (cf. 196.2)

2. ***hi.*** This constantly occurring enclitic is somewhat difficult to define. With personal pronouns it is used as an emphatic particle:

ma' hi you yourself (cf. 104.13; 152.20

Similarly with demonstratives:

ga' hi just that, the same 64.6; 96.16; 144.3; 190.21

In such cases it is rather difficult to draw the line between it and *yā'ᵃ*,[1] to which it may be appended:

ga yā'ᵃ hi gwelda` just under that 190.17
han-yā'ᵃ-hi bāᵃ-t'e'ᵉx just across the river she emerged 58.3

As emphasizing particle it may even be appended to subordinate verb forms and to local phrases:

yānt'eᵉdaᵉ hi` just as I went (cf. 138.23; 152.5, 7)
dĭha-udĕ hi` right behind me, as soon as I had gone

It may be enclitically attached to other particles, *yā'ᵃ-hi* 192.1 being a particularly frequent combination:

gĭⁱ yaxa'-hi I, however, indeed 71.8

Its signification is not always, however, so specific nor its force so strong. All that can be said of it in many cases is that it mildly calls attention to the preceding word without, however, specially emphasizing it; often its force is practically nil. This lack of definite signification is well illustrated in the following lullaby, in the second line of which it serves merely to preserve the rhythm -'⏑:

mo'xo wa'inhā buzzard, put him to sleep!
s·ī'mhi wa'inhā (?) put him to sleep!
p'e'lda wa'inhā slug, put him to sleep!

The most important syntactic function of *hi* is to make a verbal prefix an independent word, and thus take it out of its proper place in the verb:

de'-hi ahead (from *de-* in front) 33.15; 64.3; 196.1; 198.12
ha'n-hi ei-sāk'ʷ across he-canoe-paddled

but:

ei-han-sāk'ʷ he-canoe-across-paddled 112.9, 18; 114.11

where *han-*, as an incorporated local prefix, takes its place after the object *eĭ*. A number of adverbs always appear with suffixed *hi;* e. g., *gasa'lhi* QUICKLY 16.10. Like *-ᵉa`*, from which it differs, however, in its far greater mobility, *hi* is never found appended to non-subordinate predicative forms. With *hi* must not be confused:

[1] The various shades of emphasis contributed by *-ᵉa`*, *yā'ᵃ*, *hĭ*, and *-s·ĭᵉ*, respectively, are well illustrated in *maᵉa`* YOU, BUT YOU (as contrasted with others); *ma yā'ᵃ* JUST YOU, YOU INDEED (simple emphasis without necessary contrast); *ma' hi* YOU YOURSELF; *mas·'ĭᵉ* AND YOU, YOU IN YOUR TURN (108.13)

3. ***-hi^{ɛ}.*** This particle is found appended most frequently to introductory words in the sentence, such as *mī^{i}*, *ganē*, and other adverbs, and to verb-forms:

mī^{i}-hi^{ɛ} t'aga'^{iɛ} then he returned 62.2; (cf. 188.15)
ganē-hi^{ɛ} aba-i-gini'^{ɛ}k' and then he went into the house 55.16
naga'-i-hi^{ɛ} = *naga'^{iɛ}* he said + *-hi^{ɛ}* (see § 22) 22.6; 57.1; 128.15; 192.9

As no definite meaning can be assigned to it, and as it is found only in myth narration, it is highly probable that it is to be interpreted as a quotative:

ga naga'sa^{ɛ}n-hi^{ɛ} that they said to each other, it is said 27.1, 3; 31.9

-hi^{ɛ} is also found attached to a verbal prefix (22.1; 140.8, 22, 23).

4. ***-s·i^{ɛ}*** AND, BUT. This is one of the most frequently occurring particles in Takelma narration, its main function being to bind together two clauses or sentences, particularly when a contrast is involved. It is found appended to nouns or pronouns as deictic or connective suffix:

ãks·i^{ɛ} he in his turn 61.11; (cf. 47.14; 104.8, 13)
hũlk' sgi'sidi'l mēxs·i^{ɛ} Panther and Coyote, also Crane

An example of its use as sentence connector is:

ga nagañhan ha-t'gā^{a}dē hop!ē^{ɛ}n, bō^{u}-s·i'^{ɛ} eme'^{ɛ} a'nī^{ɛ} ga naga'n that used-to-be-said in-my-country long-ago, now-but here not that is-said 194.4; (cf. 60.9; 118.3; 122.17)

-s·i^{ɛ} is particularly frequently suffixed to the demonstratives *ga* THAT and *aga* THIS, *gas·i^{ɛ}* and *agas·i^{ɛ}* serving to connect two sentences, the second of which is the temporal or logical resultant or antithesis of the second. Both of the connected or contrasted sentences may be introduced by *gas·i^{ɛ}*, *agas·i^{ɛ}*, or by a word with enclitically attached *-s·i^{ɛ}*. In an antithesis *agas·i^{ɛ}* seems to introduce the nearer, while *gas·i^{ɛ}* is used to refer to the remoter act. Examples showing the usage of *gas·i^{ɛ}* and *agas·i^{ɛ}* are:

gas·i'^{ɛ} de^{e}l ha-de-dīlt'a dī-būmā'^{a}k' (I smoked them out), and-then (or so-that) yellow-jackets everywhere swarmed 73.10
k'aiwi'^{ɛ} t!omoma'nda^{ɛ} gas·i'^{ɛ} gayawa't'p' something I-having-killed-it, thereupon you-ate-it 90.8
gas·i'^{ɛ} gũxda hülü^{ü}n wa-iwī'^{i} t!omxi'xas·i^{ɛ} aba'i on-one-hand his-wife (was a) sea woman, her-mother-in-law-but (lived) in-the-house 154.15

agas·iᵉ yõᵘk!ʷat'k' yā'ᵃ xu'ma-s·iᵉ a'nīᵉ deᵉügü's·i now my-bones just (I was) (i. e., I was reduced to a skeleton), food-and not she-gave-me-to-eat 186.1

agas·iᵉ a'nīᵉ mī'ᵉwa al-t!eye'xi naga'ⁱᵉ yulumᵉa' aga's·iᵉ xamk' wa-iwī'ⁱ mīⁱ al-t!ayāk'wa on-one-hand "Not probably she-has-discovered-me," he-said Eagle-for-his-part, but Grizzly-Bear girl now she-had-discovered him 124.9

gas·iᵉ and *agas·iᵉ* as syntactic elements are not to be confused with the demonstratives *ga* and *aga* to which a connective *-s·iᵉ* happens to be attached. This is shown by:

ga-s·i'ᵉ gaᵉal that-so for (= so for that reason)

where *gaᵉal* is a postposition to *ga*. There is nothing to prevent post-nominal *-s·iᵉ* from appearing in the same clause:

aga's·iᵉ mēls·iᵉ but Crow-in-her-turn 162.14

When suffixed to the otherwise non-occurring demonstrative *ᵉī-* (perhaps contained in *īda-* THAT) it has a concessive force, DESPITE, ALTHOUGH, EVEN IF 60.1:

ᵉī's·iᵉ-hi s·om gaᵉal ha-de-dīlt'a wīt' a'nīᵉ al-t!aya'k' p!iyi'n although-indeed mountain to everywhere he-went, not he-found deer 43.6

i's·iᵉ ts!aya'k' a'nīᵉ t!omõm gũxdagwa although he-shot-at-her, not he-killed-her his-own-wife 140.17

-hiᵉ (see no. 3) or connective *-s·iᵉ* may be added to *ᵉī's·iᵉ*, the resulting forms, with catch dissimilation (see § 22), being *ᵉī's·ihiᵉ* and *ᵉī's·is·iᵉ* 47.11; 148.12. When combined with the idea of unfulfilled action, the concessive *ᵉīs·iᵉ* is supplemented by the conditional form in *-k'iᵉ* of the verb:

ᵉī's·iᵉ k'a'i gwala nãxbiyauk'iᵉ, wede ge līⁱwa't' even-though things many they-should-say-to-you (i. e., even though they call you names), not there look! 60.3

Compounded with *-s·iᵉ* is the indefinite particle:

5. ***-s·iᵉwa'k'di*** 64.5. When appended to interrogatives, this particle brings about the corresponding indefinite meaning (see § 105), but it has also a more general syntactic usage, in which capacity it may be translated as PERCHANCE, IT SEEMS, PROBABLY:

ma's·iᵉwak'di henenagwa't' perhaps (or probably) you ate it all up 26.17

The uncompounded *wak'di* also occurs:

ulu'm wô'k'di k'ai nãk'am formerly I-guess something it-was said to him 166.1

ga wa'k'di hogwa'^{e}sdã^{a} that-one, it-seems, (was) their-runner 49.3

Similar in signification is:

6. ***mī^{ie}wa*** PROBABLY, PERHAPS 45.8; 63.15. This enclitic has a considerable tendency to apparently be incorporated in the verb:

ī-mī'^{ie}wa-t!āūt!iwin maybe he was caught (*ī-t!āūt!iwin* he was caught)

xa^{e}-ī-mī'^{ie}wa-sgī'^{i}bi^{e}n mü^{üe}xda'n hi I'll-probably-cut-him-in-two once just 31.13

7. ***his, hī^{i}s*** NEARLY, ALMOST, TRYING 44.7; 56.14. This element implies that the action which was done or attempted failed of success:

mī^{i} hono^{e} t!omõk'wa-his mãl then also he-killed-him nearly spear-shaft (personified), i. e., spear-shaft almost managed to kill him, as he had killed others 28.11; (cf. 188.20)

A frequent Takelma idiom is the use of *hi's* with a form of the verb of SAYING *na(g)-* to imply a thought or intention on the part of the subject of the *na(g)-* form that fails to be realized:

"ha-xiya' mī^{e}wa sgā'^{a}t'ap'de^{e}" naga'^{ie}-hi's "in-the-water probably I-shall-jump," he thought (but he really fell among alder-bushes and was killed) 94.17

Sometimes *his* seems to have a usitative signification; probably the main point implied is that an act once habitual has ceased to be so:

dak-his-t'ek!e'^{e}xade^{e} I used to smoke (but no longer do)

8. ***wis, wī^{i}s*** IT SEEMS, DOUBTLESS. This particle is used to indicate a likely inference. Examples are:

mī^{i}-wis dap^{e}ā'la-u moyūgwana'n now-it-seems youth he's-to-be-spoiled (seeing that he's to wrestle with a hitherto invincible one) 31.12

mī^{i} wī'^{i}s ãk!a t!omoma'n now apparently he-for-his-part he-has-been-killed (seeing that he does not return) 88.9,(6)

9. ***yaxa*** CONTINUALLY, ONLY. The translation given for *yaxa* is really somewhat too strong and definite, its force being often so weak as hardly to allow of an adequate rendering into English. It

often does not seem to imply more than simple existence or action unaccompanied and undisturbed. It is found often with the scarcely translatable adverb *ganga* ONLY, in which case the idea of unvaried continuance comes out rather strongly, e. g.:

ga'-hi yaxa ganga naga'$^{i\varepsilon}$ that-indeed continually only he-said (i. e., he always kept saying that) 24.15

From *ganga* it differs in the fact that it is often attracted into the verb-complex:

ganga ge'l-yaxa-hewe'hau only he-is-continually-thinking (i. e., he is always thinking) (cf. 128.18; 146.15)

10. ***wala'$^{\varepsilon}$(sina$^{\varepsilon}$)*** REALLY, COME TO FIND OUT 45.11; 170.8. As indicated in the translation, *wala'$^{\varepsilon}$* indicates the more or less unexpected resolution of a doubt or state of ignorance:

ga haga wala'$^{\varepsilon}$ wili wa$^{\varepsilon}$-ī-t!a'nik' that-one so really house he-kept-it (i. e., it was Spear-shaft himself who kept house, no one else) 28.10

Certain usages of *wala'$^{\varepsilon}$si(na$^{\varepsilon}$)*, evidently an amplification of *wala'$^{\varepsilon}$*, have been already discussed (§ 70).

11. ***di*** INTERROGATIVE. The interrogative enclitic is consistently used in all cases where an interrogative shade of meaning is present, whether as applying to a particular word, such as an interrogative pronoun or adverb, or to the whole sentence. Its use in indirect questions is frequent:

mān t'ī'^{i}s mixal di' t!omomana'$^{\varepsilon}$ he-counted gophers how-many had-been-killed

The use of the interrogative is often merely rhetorical, implying an emphatic negative:

k'a-di' ma wili wa$^{\varepsilon}$-ī-t!a'nida$^{\varepsilon}$ literally, what you house you-will-keep? (=you shall not keep house) 27.16; (cf. 33.1; 47.9)

Ordinarily *di* occupies the second place in the sentence, less frequently the third:

yū'k!alxde$^{\varepsilon}$ mī^{i} di' $^{\varepsilon}$a'nī$^{\varepsilon}$ k'a'i your-teeth now (inter.) not any (i. e., have you no teeth?) 128.23

Besides these syntactically and modally important enclitic particles, there are a few proclitics of lesser significance. Among these are to be included *mī^{i}* NOW and *ganē* THEN, AND THEN, which, though they have been included among the temporal adverbs and may

indeed, at times, convey a definite temporal idea, are generally weak unaccented introducers of a clause, and have little determinable force:

ganē ya'ᵋ then he went 92.26; 118.19; 152.7
mīⁱ loho'ⁱᵋ then he died 71.13; 98.19; 122.13

The proclitic *neᵉ* WELL! is used chiefly as introductory to a hortatory statement:

neᵉ gōᵘm-s·iˑ'ᵋ dak'-s·inī'ⁱda nabā'ᵃᵋha'n let us-in-our-turn over-his-nose let-us-do (i. e., let us pass over him!) 144.11
neᵉ tˑomoma'ᵋn let me kill him. (cf. 96.4)

§ 115. VII. Interjections

Of interjections and other words of an emotional character there are quite a number in Takelma. Some of them, while in no sense of definite grammatical form, are based on noun or verb stems. Not a few involve sounds otherwise foreign to the language (e. g., nasalized vowels [expressed by ⁿ], *ä* as in English BAT, *â* as in SAW, *dj* as in JUDGE, voiceless palatal *l* [written *ł*], final fortis consonant); prolongation of vowels and consonants (expressed by +) and repetition of elements are frequently used.

The material obtained may be classified as follows:

1. PARTICLES OF ADDRESS:

amaˑ' come on! 96.24
hene' away from here! get away! 148.8, 10, 11, 13, 14
dit'gwālam O yes! (with idea of pity) 29.13; *dit'gwā'ᵃᵋlam wiᵋwã* my poor younger brother! 64.4
ha-i' used by men in talking to each other
ha'ikˑ!ã' used by women in talking to each other (cf. *ha-ikˑ!ã* wife! husband!)

2. SIMPLE INTERJECTIONS (expressing fundamental emotions):

ā+ surprise, generally joyful; weeping 28.5; 58.2; 150.2
ă; ă'; ᵋă; ᵋă' sudden surprise at new turn; sudden resolve 28.6; 29.7; 55.7; 78.9
a'ᵋ sudden halt at perceiving something not noticed before 26.12
o' doubt, caution 136.23
ō+ sudden recollection; admiration, wonderment; call 92.9; 138.19; 188.17, 19
â+ fear, wonder 17.3
ᵋe; ᵋe' displeasure 27.16; 32.9; 33.6; 122.12
ᵋè; hè+ (both hoarsely whispered) used by mythological characters (crane, snake) on being roused to attention 122.10; 148.17, 18

hē+; *ē*+ call 59.2; 73.7; 75.10; 76.8
$^{\epsilon}e^{n\text{'}}$; $^{\epsilon}e^{n}$ disapproval, "what's up?", sarcasm 28.11; 32.10
$^{\epsilon}E^{n}$ $^{\epsilon}E^{n}$ protest 112.6, 11; 114.3, 6, 13; $^{\epsilon}E'^{n}$, $^{\epsilon}E'^{n}$ decided displeasure 198.2
he^{n} scorn, threat 140.9; 152.14
$e^{n\text{'}}$ sniffing suspiciously 160.20
$E^{n\text{'}}$ $E^{n\text{'}}$ $E^{n\text{'}}$ $E^{n\text{'}}$ smelling suspiciously 124.23
dja' disapproval, warning 156.18
m+ *m*+ gentle warning, pity 29.8; 31.11, 14
hm+ *hm*+ reviving hope (?) 32.3
wä+ *wä*+ (loudly whispered) cry for help 29.12
ha-i alas! 62.4, 7
A^{n}+ groan 182.11
ho'^{ϵ} (hoarsely whispered) on being wounded 190.24
hâ' hâ hâ groans on being wounded 192.10
he' he he he laughter 118.22; 120.6

Those that follow have a prefixed *s·*- frequently used by Coyote. They are probably characteristic of this character (see also 71.14; 90.12).

s·$^{\epsilon}$*e'hehehe* derisive laughter 71.7; 72.11; 73.15; 74.15
s·be'p' sharp anger 86.6, 22, 24
s·bè'+^{u} call for some one to come 92.1
$c^{\epsilon}a'i$ say there, you! 92.18, 21
s·gā+ sorrow 100.3

3. SET CALLS (including cries in formulas and myths):

p'ä+ (loudly whispered) war-whoop 190.15
bä+ *bä*+ (loudly whispered and held out long) war-whoop 136.26 *bä wä' äu wä' äu* . . . . . (loudly whispered) war-whoop 110.19 *gwä' lä lä lä lä* (loudly whispered) war-whoop on slaying one of enemy
wâ wâ wâ cry to urge on deer to corral
bō+ yelling at appearance of new moon 196.5
hä+; *bä*+ (both loudly whispered) urging on to run 46.5, 7; 47.6; 48.1, 3, 9; 49.3
h^{w}+ blowing before exercising supernatural power 96.19, 20, 22; 198.7
p'+ blowing in exercising supernatural power 77.9
p'^{w}+ blowing water on person to resuscitate him 170.3
hĕ blowing preparatory to medicine-formula addressed to wind 198.4
do' do do do do do cry (of ghosts) on catching fire 98.4 (cf. Yana *du' du du du' du du*)
ximī'+*ximi* cry of rolling skull 174.5, 6

ō' + *da da da da da* cry of people running away from rolling skull 174.9, 10

do'lhi dolhi` taunt (of Pitch to Coyote) 86.2, 8, 10, 17, 21, 23; 88. 1, 2

da'ldalwaya da ldalwaya da'ldalwaya formula for catching crawfish (explained in myth as derived from *dalda'l* dragon-fly) 29.14, 16

wi'lik!isi "cut off!" (cf. *wī'lī'ⁱ* his stone knife 142.21) Chicken-Hawk's cry for revenge 144.1

sgilbibī' + *ⁱx* "come warm yourself!" 25.7 (cf. *sgili'pxdeᵉ* I warm myself 25.8)

gewe'ᵉk!eweᵉ (cf. *gewe'k!iwiᵉn* I hold [salmon] bow-fashion) said by Pitch when Coyote is stuck to him 88.5, 9, 11, 12

p!idi-l-p`ā'ᵉt`p`idit`k`* "O my liver!" (cf. *p`āᵉt`p`id-i- salmon liver) cry of Grizzly Bear on finding she has eaten her children's livers 120.19, 20

The last three show very irregular types of reduplication, not otherwise found.

4. Animal Cries and Imitative Sounds:

wa'yanī cry of Jack-Rabbit 108.9, 14, 17

(s·)ha'u, ha'u cry of Grizzly Bear 106.12, 19; 140.12

wā' + *ᵘ* (hoarse) death-cry of Grizzly Bear woman 142.3

hâᵘ Bear's cry 72.15

p!āk` p!āk` "bathe! bathe!" supposed cry of crow

bak` bak` bak` bak` bak` bak` sound made by Woodpecker 90.11; 92.2 (cf. *ba'k`bāᵃ* red-headed woodpecker 92.2)

p!au p!au p!au p!au p!au p!au sound made by Yellowhammer 90.19

bum + *bum* + noise made by rolling skull 174.4

tc!e'lelelele (whispered) sound of rattling dentalia 156.24 (cf. aorist stem *tc!elem-* rattle)

t`uł t`uł t`uł noise made by Rock Boy in walking over graveyard house 14.8

dᴇm + *dᴇm* + *dᴇm* + noise of men fighting 24.1

xa'-u (whispered) noise of crackling hair as it burns 24.8

t`gi'l* imitating sound of something breaking 24.4 (cf. *xa-dāᵃn-t`gił-t`ga'lhi he broke it in two with rock 24.4)

t`ut` t`ut` t`ut` noise of pounding acorns 26.12

bᴀk! "pop!" stick stuck into eye 27.8

huⁿ + confused noise of people talking far off 190.7

k!i'dididi sound of men wrestling 32.14

5. Song Burdens:

wa'yawene łō'ᵘwana medicine-man's dance 46.14

wainhā round dance; lullaby (cf. *waīnha* put him to sleep!) 104.15; 106.4, 8; 105 note

k!i'xinhi round dance (said by Frog) 102.18
ᵋo'cu ᵋo'cu round dance (said by Frog) 102.23
gwa'tca gwatca round dance (said by Bluejay) 104.7
tc!a'itc!ā round dance (play on *tc!a'ⁱᵋc* bluejay) 104.7
be'bebinibī'a round dance (said by Mouse; play on *bebe'n* rushes) 104.10
beleldō round dance (play on *bel'p'* swan) 104.15
bi'gi bi'gi bi'gī+ Skunk's medicine-man's dance ([?] play on *bīk'ʷ* skunk) 164.18, 22; 166.5
hâ'ᵋgwatci hâ'ᵋgwatci said by s·omloho'lxaᵋs in doctoring

§ 116. CONCLUSION

The salient morphologic characteristics of Takelma may be summed up in the words INFLECTIVE and INCORPORATING, the chief stress being laid on either epithet according as one attaches greater importance to the general method employed in the formation of words and forms and their resulting inner coherence and unity, or to the particular grammatical treatment of a special, though for many American languages important, syntactic relation, the object. Outside of most prefixed elements and a small number of the post-nominal suffixes, neither of which enter organically into the inner structure of the word-form, the Takelma word is a firmly knit morphologic unit built up of a radical base or stem and one or more affixed (generally suffixed) elements of almost entirely formal, not material, signification.

It would be interesting to compare the structure of Takelma with that of the neighboring languages; but a lack, at the time of writing, of published material on the Kalapuya, Coos, Shasta, Achomawi, and Karok makes it necessary to dispense with such comparison. With the Athapascan dialects of southwest Oregon, the speakers of which were in close cultural contact with the Takelmas, practically no agreements of detail are traceable. Both Takelma and Athapascan make a very extended idiomatic use of a rather large number of verbal prefixes, but the resemblance is probably not a far-reaching one. While the Athapascan prefixes are etymologically distinct from the main body of lexical material and have reference chiefly to position and modes of motion, a very considerable number of the Takelma prefixes are intimately associated, etymologically and functionally, with parts of the body. In the verb the two languages agree in the incorporation of the pronominal subject and

object, but here again the resemblance is only superficial. In Athapascan the pronominal elements are phonetically closely combined with the verbal prefixes and stand apart from the following verb-stem, which never, or very rarely, loses its monosyllabic individuality. In Takelma the pronominal elements, together with the derivative affixes, enter into very close combination with the preceding verb-stem, but stand severely aloof from the verbal prefixes. The radical phonetic changes which the verb-stem undergoes for tense in both languages is perhaps the most striking resemblance between the two; but even in this regard they differ widely as to the methods employed. Neither the very extended use of reduplication in Takelma, nor the frequent use in Athapascan of distinct verb-stems for the singular and plural, is shared by the other. Add to this the fact that the phonetic systems of Athapascan and Takelma are more greatly divergent than would naturally be expected of neighboring languages, and it becomes clear that the opinion that has generally been held, though based on practically no evidence, in regard to the entirely distinct characteristics of the two linguistic stocks, is thoroughly justified.

The entire lack of nominal cases in Takelma and the lack of pronominal incorporation in Klamath indicate at the outset the fundamental morphologic difference between these stocks. In so far as nominal cases and lack of pronominal incorporation are made the chief morphologic criteria of the central Californian group of linguistic families, as represented, say, by Maidu and Yokuts, absolutely no resemblance is discernible between those languages and Takelma. As far, then, as available linguistic material gives opportunity for judgment, Takelma stands entirely isolated among its neighbors.

In some respects Takelma is typically American, in so far as it is possible at all to speak of typical American linguistic characteristics. Some of the more important of these typical or at any rate widespread American traits, that are found in Takelma, are: the incorporation of the pronominal (and nominal) object in the verb; the incorporation of the possessive pronouns in the noun; the closer association with the verb-form of the object than the subject; the inclusion of a considerable number of instrumental and local modifications in the verb-complex; the weak development of differences of tense in the verb and of number in the verb and noun; and the impossibility of drawing a sharp line between mode and tense.

Of the more special grammatical characteristics, some of which are nearly unparalleled in those languages of North America that have been adequately studied, are: a system of pitch-accent of fairly considerable, though probably etymologically secondary, formal significance; a strong tendency in the verb, noun, adjective, and adverb toward the formation of dissyllabic stems with repeated vowel (e. g., aorist stem *yowo-* BE; verb-stem *loho-* DIE; noun *moxo'* BUZZARD; adjective *hos·õ^{u}* [plural] GETTING BIG; adverb *olo'm* FORMERLY); a very considerable use of end reduplication, initial reduplication being entirely absent; the employment of consonant and vowel changes as a grammatical process; the use in verbs, nouns, and adjectives of prefixed elements, identical with body-part noun stems, that have reference now to parts of the body, now to purely local relations; the complicated and often irregular modifications of a verbal base for the formation of the most generalized tense, the aorist; the great differentiation of pronominal schemes according to syntactic relation, class of verb or noun, and tense-mode, despite the comparatively small number of persons (only five—two singular, two plural, and one indifferent); the entire lack in the noun and pronoun of cases (the subjective and objective are made unnecessary by the pronominal and nominal incorporation characteristic of the verb; the possessive, by the formal use of possessive pronoun affixes; and the local cases, by the extended use of pre-positives and postpositions); the existence in the noun of characteristic suffixes that appear only with prepositives and possessive affixes; the fair amount of distinctness that the adjective possesses as contrasted with both verb and noun; the use of a decimal system of numeration, tertiary or quinary in origin; and a rather efficient though simple syntactic apparatus of subordinating elements and well-modulated enclitic particles. Altogether Takelma has a great deal that is distinct and apparently even isolated about it. Though typical in its most fundamental features, it may, when more is known of American languages as a whole, have to be considered a very specialized type.

§ 116

APPENDIX A

1. Comparative Table of Pronominal Forms

	Singular			Plural	
	First person	Second person	Third person	First person	Second person
Aor. subj. intr. I	-t'eᵋ	-(a')t'	-ᵋ	-i'k'	-(a')t'p'
Aor. subj. intr. II	-t'eᵋ	-t'am	—,-t'	-(p'-)ik'	-t'ap'
Fut. subj. intr. I	-t'ee	-(a)da'ɛ	-(a')ɛt'	-(i)ga'm	-(a)t'baᵋ
Fut. subj. intr. II	-t'ee	-t'aᵋ	-t'āa	-(p'-)igam	-t'abaᵋ
Pr. imper.		——		-(a)baᵋ	-(a')np', -'p'
Fut. imper. intr. I and trans.		-(a')ɛk'			
Fut. imper. intr. II		-(p'-)gaᵋm			
Aor. subj. trans.	-(a')ɛn	-(a')t'	——	-(a)nak'	-(a')t'p'
Fut. subj. trans.	-(a')n	-(a)da'ɛ	-(a')nk'	-(a)nagam	-(a)t'baᵋ
Infer. subj.	-k'-aᵋ	-k' ɛeit'	-k'	-k'-anak'	-k' ɛeit'p'
Obj. trans.	-xi	-bi	——	-am	-anp'
Poss. with pre-positives	-dĕ	-daᵋ	-da	-da'm	-dabaᵋn, -'ɛt'ban
Poss. relationship	wi-	-'ɛt'	-xa, -a	-da'm	-'ɛt'ban
Poss. II	-deek'	-deᵋ	-dāa	-da'm	-dabaᵋn
Poss. III	-'t'k'	-'ɛt'	-', -'t'	-da'm	-'ɛtban
Independent pronouns	gīi	ma	āak' (pl. āi)	gōum	māap'

2. Scheme of 7 Voices in 6 Tense-Modes (2d per. sing. of *dink!-* SPREAD)

	Aorist	Future	Inferential	Potential	Present imperative	Future imperative
Trans. (2d per. subj.)	*di'nik!at'*	*dink!ada'ɛ*	*di'nɛk' ɛēt'*	*di'nk!at'*	*di'nɛk'*	*di'nk!aɛk'*
Passive	*di'niɛxbin*	*dinɛxbina'ɛ*	*di'nɛxbigam*	*di'nɛxbin*		
Act. intr.	*di'niɛxat'*	*dinɛxada'ɛ*	*di'nɛxak' ɛēt'*	*di'nɛxat'*	*di'nɛ'a*	*di'nɛxaɛk'*
Reflexive	*di'niɛk'widam*	*di'nɛk'widaɛ*	*di'nɛk'wip'k' ɛēt'*	*di'nɛk'widam*	*di'nɛk'wī'ip'*	*di'nɛk'wip'gaɛm*
Recipr. (pl.)	*di'niɛxant'p'*	*di'nɛxant'baɛ*	*di'nɛk'ank' ɛēt'p'*	*di'nɛxant'p'*		
Non-agentive	*di'niɛxdam*	*di'nɛxdaɛ*	*di'nɛxk' ɛēt'*	*di'nɛxdam*	*di'nɛx*	*di'nɛxgaɛm*
Positional	*dink!ī't'am*	*dink!a'sdaɛ*	*di'nk!ask' ɛēt'*	*dink!a'sdam*		

3. Forms of *na(g)-* SAY, DO

A. Intransitive

	Aorist	Future	Potential	Inferential	Present imperative	Future imperative
Singular:						
1st per.	*nagaăt'e^{s}*	*na't'ee*	*na't'e^{s}*	*na'k'a^{s}*		
2d per.	*nagaăt'*	*nada'^{s}*	*na't'*	*na'k!eăt*	*na'*	*na'^{s}k'*
3d per.	*naga'i^{s}*	*na'^{s}t'*	*na'^{s}*	*na'k'*		
Plural:						
1st per.	*nagayi'k'*	*naga'm*	(?)*nayi'k'*	*na'k'ana'k'*	*nabā'a^{s}(ha'n)*	
2d per.	*nagaăt'p'*	*na't'ba^{s}*	*na't'p'*	*na'k!eăt'p'*	*na'np'*	
Imper.	*neeye'^{s}* (subordinate *neye'eda^{s}* or *nè'ida^{s}*)	*neeyaŭk'i^{s}* (conditional)				

FREQUENTATIVE

	Aorist	Future	Inferential	Present imperative	Future imperative
Singular:					
1st per.	*naga^{s}na'k'de^{s}*	*naăt'ee*	*naăk'a^{s}*		
2d per.	*naga^{s}nigi't'*	*nanada'^{s}* [1]	*naăk!eăt'*	*naăha*	*naăha^{s}k'*
3d per.	*naga^{s}nā'a^{s}k'*	*nana'^{s}t'* [1]	*naăk'* [2]		
Plural:					
1st per.	*naga^{s}nigi'k'*	*nanaga'm* [1]	*naăk'ana'k'*	*nanaba'^{s}*	
2d per.	*naga^{s}nigi't'p'*	*nana't'ba^{s}* [1]	*naăk!eăt'p'*	*naăhanp'*	
Imper.	*nee'nia'u^{s}*				

[1] These forms are to be carefully distinguished from *na^{s}-nada'^{s}*, *na^{s}-na'^{s}t'*, and so forth (see §69). It is of course possible to have also *na^{s}-naăt'ee*, *na^{s}-nanada'^{s}*, and so forth.

[2] Also *naăkak'* is found, so that it is probable that doublets exist for other non-aorist forms, e. g., *naăhada^{s}*, *naăhaba^{s}*.

B. Transitive

Aorist

Subject	Object				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per.		*naga'sbi^{s}n*	*naga'^{s}n*		*naga'sanba^{s}n*
2d per.	*nege's·dam*		*naga't'*	*naga'simit'*	
3d per.	*nege's·i*	*naga'sbi*	*naga'*	*naga'sam*	*naga'sanp'*
Plural:					
1st per.		*nagasbina'k'*	*nagana'k'*		*naga'sanbana'k'*
2d per.	*nege's·dap'*		*naga't'p'*	*naga'simit'p'*	

3. Forms of *na(g)-* SAY, DO

B. Transitive—Continued

Future

Subject	Object				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per.		*năxbin*	*nāagi'n*		*năxanban*
2d per.	*nĕxda^{s}*		*năk'ida^{s}*	*năximida^{s}*	
3d per.	*nĕxink'*	*năxbink'*	*năk'ink'*	*năxamank'*	*năxanbank'*
Plural:					
1st per.		*năxbinagam*	*nāaginaga'm*		*năxanbanagam*
2d per.	*nĕxdaba^{s}*		*nāagi't'ba^{s}*	*năximit'ba^{s}*	
Imper. condit.	*nĕxiauk'i^{s}*	*năxbiauk'i^{s}*			

Inferential

Singular:					
1st per.		*năxbiga^{s}*	*năk'iga^{s}*		*năxanp'ga^{s}*
2d per.	*nĕxik!ĕt'*		*năk'ik!ĕt'*	*năxamk!ĕt'*	
3d per.	*nĕxik'*	*năxbik'*	*năk'ik'*	*năxamk'*	*năxanp'k'*
Plural:					
1st per.		*năxbigana'k'*	*năk'igana'k'*		*năxanp'gana'k'*
2d per.	*nĕxik!ĕt'p'*		*năk'ik!ĕt'p'*	*năxamk!ĕt'p'*	

Potential

Singular:					
1st per.		*năxbi^{s}n*	*nāagi'^{s}n*		*năxanba^{s}n*
2d per.	*nĕxdam*		*năk'it'*	*năximit'*	
3d per.	*nĕxi*	*năxbi*	*năk'i*	*năxam*	*năxanp'*
Plural:					
1st per.		*năxbinak'*	*năk'inak'*		*năxanbana'k'*
2d per.	*nĕxdap'*		*năk'it'p'*	*năximit'p'*	

Present Imperative

Singular:					
2d per.	*nĕxi*		*năk'i*	*năxam*	
Plural:					
1st per.			*năk'iba^{s}*		
2d per.	*nĕxip'*		*năk'ip'*	*năxamp'*	

Future Imperative

Singular:					
2d per.	*nĕxgc^{s}m*		*nāagi'^{s}k'*		

3. Forms of *na(g)-* SAY, DO

B. Transitive—Continued

Passive

	Aorist	Future	Potential	Inferential
Singular:				
1st per.	*nege'sˑin*	*nĕxinaᵉ*	*nĕxin*	*nĕxigam*
2d per.	*naga'sbin*	*năxbinaᵉ*	*năxbin*	*năxbigam*
3d per.	*naga'n*	*nāᵃgina'ᵉ*	*năkˑin*	*năkˑam*
Plural:				
1st per.	*naga'simin*	*năximinaᵉ*	*năximin*	*năxamkˑam*
2d per.	*naga'sanban*	*năxanbanaᵉ*	*năxanban*	*năxanpˑgam*

FREQUENTATIVE

Aorist

Subject	Object				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per.		*nagañsbiᵉn*	*nagañhaᵉn*		*nagañsanbaᵉn*
2d per.	*negeñsˑdam*		*nagañhatˑ*	*nagañsimitˑ*	
3d per.	*negeñsˑi*	*nagañsbi*	*nagañha*	*nagañsam*	*nagañsanpˑ*
Plural:					
1st per.		*nagañsbinakˑ*	*nagañhanakˑ*		*nagañsanbanaˑkˑ*
2d per.	*negeñsˑdapˑ*		*nagañhatˑpˑ*	*nagañsimitˑpˑ*	

Future

Singular:					
1st per.		*nănsbin*	*nănhan*		*nănsanban*
2d per.	*nĕnsˑdaᵉ*		*nănhadaᵉ*	*nănsimidaᵉ*	
3d per.	*nĕnsˑinkˑ*	*nănsbinkˑ*	*nănhankˑ*	*nănsamankˑ*	*nănsanbankˑ*
Plural:					
1st per.		*nănsbinagam*	*nănhanagam*		*nănsanbanagam*
2d per.	*nĕnsdabaᵉ*		*nănhatˑbaᵉ*	*nănsimitˑbaᵉ*	

Passive

	Aorist	Future
Singular:		
1st per.	*negeñsˑin*	*nĕnsˑinaᵉ*
2d per.	*nagañsbin*	*năsbinaᵉ*
3d per.	*nagañhan*	*nănhanaᵉ*
Plural:		
1st per.	*nagañsimin*	*nănsiminaᵉ*
2d per.	*nagañsanban*	*nănsanbanaᵉ*

3. Forms of *na(g)-* SAY, DO

C. Causative in *-n-*[1]

Aorist

Subject	Object				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per. . . .		*nagānxbiᵋn*	*nagāᵃna'ᵋn* (*nagāᵃni'ᵋn*)[2]		*nagānxanbaᵋn*
2d per. . . .	*negēnxdam*		*nagāᵃnaʻt'* (*nagāᵃniʻt'*)	*nagānximit'*	
3d per. . . .	*negēnxi*	*nagānxbi*	*nagān* (*nagānhi*)	*nagānxam*	*nagānxanp'*
Plural:					
1st per. . . .		*nagānxbinak'*	*nagāᵃnanaʻk'* (*nagāᵃninaʻk'*)		*nagānxanbanaʻk'*
2d per. . . .	*negēnxdap'*		*nagāᵃnaʻt'p'* (*nagāᵃniʻt'p'*)	*nagānximit'p'*	

Future

Subject	First person singular	Second person singular	Third person	First person plural	Second person plural
Singular:					
1st per. . . .		*nānxbin*	*nāᵃna'n* (*nāᵃni'n*)		*nānxanban*
2d per. . . .	*nēnxdaᵋ*		*nāᵃnada'ᵋ*[3] (*nāᵃnida'ᵋ*)	*nānximidaᵋ*	
3d per. . . .	*nēnxink'*	*nānxbink'*	*nāᵃnaʻnk'* (*nāᵃniʻnk'*)	*nānxamank'*	*nānxanbank'*
Plural:					
1st per. . . .		*nānxbinagam*	*nāᵃnanaga'm* (*nāᵃninaga'm*)		*nānxanbanagam*
2d per. . . .	*nēnxdabaᵋ*		*nāᵃna't'baᵋ* (*nāᵃni't'baᵋ*)	*nānximit'baᵋ*	

Passive

	Aorist	Future
Singular:		
1st per.	*negēnxin*	*nēnxinaᵋ*
2d per.	*nagānxbin*	*nānxbinaᵋ*
3d per.	*nagāᵃna'n* (*nagāᵃni'n*)	*nāᵃnana'ᵋ* (*nāᵃnina'ᵋ*)
Plural:		
1st per.	*nagānximin*	*nānximinaᵋ*
2d per.	*nagānxanban*	*nānxanbanaᵋ*

[1] Though these forms are simply derivatives of intransitive aorist *naga(i)-*, verb-stem *na-*, they have been listed here because of their great similarity to transitive frequentatives, with which they might be easily confused. In the aorist, the two sets of forms differ in the length of the second (repeated) vowel, in the connecting consonant, and to some extent in the place of the accent, though this is probably a minor consideration. In the future, they differ in the connecting consonant and partly again in the place of the accent.

[2] Forms in parentheses are instrumental.

[3] Imperative (sing. subj. and third person object): *nānha.*

3. Forms of *na(g)-* SAY, DO

D. Reciprocal Forms

	Aorist	Future
Plural:		
1st per.	*naga'sinĭk'*	*năxinigam*
2d per.	*naga'sant'p'*	*năxant'ba^{s}*
3d per.	*naga'sa^{s}n* (frequentative *nagañ-sa^{s}n*)	*năxan^{s}t'*

E. Nominal Derivatives

INFINITIVES

Intransitive: *ne'x*

	Object				
	First person singular	Second person singular	Third person	First person plural	Second person plural
Transitive	*nĕxiya*	*năxbiya*	*năagia'*	*năximia*	*năxanbia*

PARTICIPLE

Active: *na'^{t}*

Other forms derived from verb-stem *na(g)-* than those given above are of course found, but are easily formed on evident analogies. Observe, however, intransitive aorist stem *nagai-* in transitive derivatives *nagaĭk'wa* HE SAID TO HIM (personal) and *nagaĭk'wit'* HE SAID TO HIMSELF. Comitatives in *-(a)gw-* are not listed because their formation offers no difficulty; e. g., second person singular present imperative *năk'^{w}* DO SO AND SO HAVING IT! It is possible that *bō^{u}-nēxada^{s}* IMMEDIATELY is nothing but adverb *bō^{u}* NOW + subordinating form **nēxada^{s}* of *-xa-* derivative from *nā^{a}g-* with regular palatal ablaut (see §31,5); literally it would then mean something like WHEN IT IS BECOMING (DOING) NOW.

APPENDIX B

THE ORIGIN OF DEATH

xi'lam[1]	sebe'ṭ'[2]	hāp'da[3]	loho'k'.[4]	sgi'sidī'l[5]	nō'ts!at'gwan[6]	
Roasting-Dead-People		his child	it died.	He and Coyote	neighboring each other	
yu'k'.[7]	ga-s·i^{e}[8]	nāk'ik':[9]	"laps[10]	yimi'xi[11]	hāp'dek'[12]	loho'ida^{e},[13]
they were.	And that	he said to him:	"Blanket	lend it to me	my child	since it died,
laps[10]	yimi'xi,"[11]	naga'-ihi^{e}[14]	xilam[1]	sebe'ṭ'.[2]	"anī^{e}[15]	laps[10]
blanket	lend it to me,"	he said, it is said,	Roasting-Dead-People.		"Not	blanket

[1] *xi'lam*. Used indifferently for SICK, DEAD (as noun), and GHOST. *-am* (= *-an*) is probably noun-forming suffix with inorganic *-a-* (cf. *han-xilmī* ABODE OF GHOSTS, literally, ACROSS-RIVER ARE GHOSTS as verb with positional *-ī*). As base is left *xil-* or *xin-* (*-n-* of radical syllable dissimilates to *-l-* before nasal suffix); *xi'lam* from * *xin-an* or * *xil-an*. This *xin-* is perhaps etymologically identical with *xin* mucus (verb-base *xin-* SNIFF).

[2] *sebe'ṭ'*. Participle in *-ṭ'* of verb *seeba'^{e}n* Type 5 I ROAST IT; aorist stem *seeb-*, verb-stem *sebe-*. ROASTING-DEAD-PEOPLE is Takelma name for species of black long-legged bug. He is supposed to be so called because responsible for death, as told in this myth.

[3] *hāp'da*. Base *hāap'-* SMALL, CHILD (cf. *hap-s-dī'* SMALL). This is one of those comparatively few nouns that add possessive pronominal suffixes of Scheme II directly to stem. With suffixed ([?] pre-pronominal) *-x-* it becomes plural in signification: *hāpxda* HIS CHILDREN. This sort of plural formation stands, as far as known, entirely isolated in Takelma. In its absolute form *hāap'-* takes on derivative suffix *-xi*, *hāpxi'* CHILD.

[4] *loho'k'*. Third personal inferential of verb *lohoīt'e^{e}* Type 4b I DIE; aorist stem *lohoi-*, verb-stem *loho-*. *-k'* inferential element. Inferential mode used because statement is here not made on personal authority, but only as tradition or hearsay. According to this, all myth narrative should employ inferential forms instead of aorist. This myth employs partly inferentials and partly aorists; but in most other myths aorists are regularly employed, probably because they are more familiar forms, and perhaps, also, because myths may be looked upon as well-authenticated fact.

[5] *sgi'sidī'l*. *sgi'si* COYOTE, formed by repetition of base-vowel according to Type 2. *-dī'l* is dual suffix *sgi'sidī'l* by itself might mean TWO COYOTES, but *-dī'l* is never properly dual in signification, meaning rather HE (indicated by preceding noun) AND SOME ONE ELSE (indicated by context).

[6] *nō'ts!at'gwan*. From local adverbial stem *nōts!-* NEXT DOOR, NEIGHBORING; it is formed by addition of characteristic *-a-* and third personal plural reflexive pronominal suffix *-t'gwan* (= *-t'-* [third person]+*-gwa-* [reflexive] + *-n* [plural]). First person singular *nōts!adĕ'*; second person singular *nōts!ada'^{e}*.

[7] *yu'k'*. Third personal inferential of verb *yowo't'e^{e}* Type 2 I AM; aorist stem *yowo-*, verb-stem *yo-* (*yu-*). *-k'* inferential element as in *loho'k'*. Corresponding aorist, *yowo'^{e}*.

[8] *gas·i^{e}*. *ga* is general demonstrative THAT, here serving to anticipate quotation: "*laps* (2) . . . *yimi'xi-* (3)." *-s·i^{e}* as general connective indicates sequence of *nāk'ik'* upon *loho'k'* (1).

[9] *nāk'ik'*. Third personal inferential of verb *naga'^{e}n* Type 2 I SAY TO HIM; aorist stem *naga-*, verb-stem *nāag-*. Corresponding aorist, *naga'*. Non-aoristic forms of this transitive verb show instrumental *-i-* (see § 64).

[10] *laps*. Noun of uncertain etymology, perhaps from base *lab-* CARRY ON ONE'S BACK. *-s* nominal derivative suffix of no known definite signification.

[11] *yimi'xi*. Present imperative second person singular subject, first person singular object (*-xi*) of verb *yī^{i}miya'^{e}n* Type 1 I LEND IT TO HIM; aorist stem *yī^{i}mī^{i}-*, verb-stem *yimi-*. Non-aoristic forms show instrumental *-i-* as in *nāk'ik'*; e. g., *yimi'hin* I SHALL LEND IT TO HIM.

[12] *hāp'da'dek'*. See *hāp'da* (1). *-de'k'* first person singular possessive pronominal suffix according to Scheme II.

[13] *loho'ida^{e}*. Subordinate form, with causal signification, of *loho'i^{e}* HE DIED. Aorist stem *lohoi-* = verb-stem *loho-* + intransitive element *-i-* characteristic of aorist of Type 4; *-e*, third personal aorist subject intransitive Class I, dissimilated because of catch in subordinating suffix *-da^{e}*. Syntactically *loho'ida^{e}* is subordinated to *yimi'xi*.

[14] *naga'-ihi^{e}*. = *naga'i^{e}* HE SAID + quotative enclitic *-hi^{e}*. *naga'i^{e}* third person aorist of irregular verb *nagaāt'e^{e}* Type 4a I SAY; aorist stem *nagai-*, verb-stem *na-*. Both transitive and intransitive forms of *na(g)-* SAY incorporate object of thing said; *ga* in *gas·i^{e}* (2) is incorporated as direct object in *nāk'ik'* (it would be theoretically more correct to write *ga* [*-s·i^{e}*]*-nāk'ik'*); while quotation "*laps . . . yimi'xi*" is syntactically direct object of *naga'-ihi^{e}* which, as such, it precedes. *ga-nāk'ik'* anticipates "*laps . . . yimi'xi*" *naga'-ihi^{e}*. Observe use of aorist instead of inferential from *naga'-ihi^{e}* on.

[15] *a'nī^{e}*. Negative particle with following aorist. True negative future would be *wede yimi'hixbiga^{e}*.

yī[i]mīsbi[ẹ]n[16] gwidi'-s·i[ẹ][17] yo'[ẹ]t'[18] xila'm[1] yèūk'i[ẹ],"[19] naga'-ihi[ẹ][14]
I lend it to you for where they will be dead people if they return?" he said, it is said,

sgi'si.[5] nō[u]s·i[ẹ][20] yewe'[iẹ][21] xilam[1] sebe't'.[2] k!odo't'[22] hāp'dagwa[23]
Coyote. And next door he returned Roasting-Dead-People. He buried it his own child

loho'ida[ẹ].[24] ganēhi[ẹ][25] dabalni'xa[26] lā[a]lē'.[27] mī[i]hi[ẹ][28] sgi'si[5] hāp'da[3]
who had died. And then, it is said, long time it became. Now, it is said, Coyote his child

xi'lam[1] lā[a]lē'.[27] mī[i][28] loho'i[ẹ].[29] mī[i][28] nō'[u]s·[20] gini'[ẹ]k'[30] xilam[1] sebet'[2]
sick it became. Now it died. Now next door he went Roasting-Dead-People

5 wā'[a]da.[31] "laps[10] yimi'xi[11] hā[a]p'de'k'[12] loho'ida[ẹ]."[13]—"k'adi'[32]
to him. "Blanket lend it to me my child since it died."— "What

nagaīt',"[33] xilam[1] sebe't'[2] ga[8] naga'[iẹ].[14] "hō[u]xa[ẹ]a'[34] ma[ẹ]a[35]
you said?" Roasting-Dead-People that he said. "*Last time* *you*

---

[16] *yī[i]mīsbi[ẹ]n.* First person singular subject (*-ẹn*) second personal singular object (*-bi-*) of verb *yī[i]miya'[ẹ]n* (see *yimi'xi* above). *-s-* indirect object used only in aorist of this verb, elsewhere *-x-*; e. g., future *yimi'xbin* I SHALL LEND IT TO YOU. Aorist is used because idea of futurity is here immediate; i. e., time of action is not put definitely forward.

[17] *gwidi'-s·i[ẹ].* *gwi-* general interrogative and indefinite adverb WHERE? SOMEWHERE. *di* interrogative enclitic serving to give *gwi-* distinct interrogative signification. *-s·i[ẹ]* has here slight causal tinge: FOR WHERE WOULD THEY ALL BE, IF THEY RETURNED?

[18] *yo'[ẹ]t'.* Third personal future of verb *yowo't'e[ẹ]* I AM (see *yu'k'* above). *-t'* third personal subject future intransitive Class I.

[19] *yèūk'i[ẹ].* Third personal conditional (*-k'i[ẹ]*) of verb *yeweīt'e[ẹ]* Type 4a I RETURN; aorist stem *yewei-*, verb-stem *yèu-* (*yeew-*).

[20] *nō'[u]s·i[ẹ].* =*nō'[u]s·*[ẹ] (stem *nōts!-* NEXT DOOR) + connective *-s·i[ẹ]*. *nō'[u]s·* may best be considered as local adverbial prefix to *yewe'i[ẹ]*.

[21] *yewe'i[ẹ].* Third personal aorist of verb *yewēit'e[ẹ]* (see *yèūk'i[ẹ]* above (*-i* and *-ẹ* as in *loho'i[ẹ]* and *naga'i[ẹ]* above)

[22] *k!odo't'.* Third personal subject, third personal object aorist of verb *k!ododa'[ẹ]n* Type 8 I BURY HIM aorist stem *k!odod-*, verb-stem *gōud-*.

[23] *hāp'dagwa.* See *hāp'da* (1). *-gwa* reflexive suffix. *k!odo't' hāp'da* would have meant HE (Roasting-Dead-People) BURIED HIS (Coyote's) CHILD.

[24] *loho'ida[ẹ].* In this case subordinate form serves merely to explain *hāp'dagwa*, and may thus be rendered as relative, WHO HAD DIED.

[25] *ganēhi[ẹ].* =*ganē* AND THEN (compound of demonstrative *ga*), used to introduce new turn in narrative, + quotative *-hi[ẹ]*.

[26] *dabalni'xa.* Temporal adverb LONG TIME. Like many other adverbs, it is difficult of satisfactory analysis. *da-* is local body-part prefix, as in several other temporal adverbs; but its application here is quite obscure. *bal-* radical element, cf. adjective *bāl-s* LONG. *-xa* adverbial (chiefly temporal) suffix. *-ni-* = ? (cf. *lep'ni'xa* WINTER).

[27] *lāalē'.* Third person aorist intransitive Class II of verb *lāalīt'e[ẹ]* Types 10a and 15a I BECOME; aorist stem *lāalē-*, verb-stem *lāa-p'-*. *-ē-* = *-ī-* of positional verbs. Corresponding inferential *lāp'k'*.

[28] *mī[i]hi[ẹ].* =*mī[i]* weak temporal adverb NOW, THEN, serving generally to introduce new statement, + quotative *-hi[ẹ]*.

[29] *loho'i[ẹ].* See *loho'ida[ẹ]* (2).

[30] *gini'[ẹ]k'.* Third person aorist of verb *gini'k'de[ẹ]* Type 2 I GO (somewhere); aorist stem *ginig-*, verb-stem *ging-*, *ginag-* (present imperative *gink'*; future *ginaʻk'de[ẹ]*). *-ẹ* third person aorist intransitive Class I. Inasmuch as forms occur derived from base *gin-* (e. g., reduplicated *giniginia'[uẹ]*), *-g-* must be considered as either petrified suffix, or as trace of older reduplication with vanished vowel in second member: *gin-i-g-* from (?) *gin-i-gn-*. *ginig-* can be used only with expressed goal of motion (in this case *nō'[u]s·* and *wā'ada*). HE WENT without expressed goal would have been *ya'[ẹ]*. Similarly: *bazam-* COME, *me[ẹ]-ginig-* COME HERE; *hōgw-* RUN, *hiwiliw-* RUN (somewhere); *s·owō'[u]k'ap'-* JUMP, *biliw-* JUMP AT.

[31] *wā'ada.* Formed, like *nō'tslat'gwan* (1), by addition of third personal pronominal suffix *-'da* to local stem *wa-*; first person *wadē*. These forms are regularly used when motion to some person or persons is meant: if goal of motion is non-personal, postposition *ga[ẹ]a'l* TO, AT is employed.

[32] *k'adi'.* *k'a* (before *di*, otherwise *k'ai*) is substantival indefinite and interrogative stem (THING), WHAT, corresponding to adverbial *gwi-* (4). *di* serves also here to give *k'a* distinct interrogative force.

[33] *nagaīt'.* Second person singular aorist of verb *nagaīt'e[ẹ]* (see *naga'-ihi[ẹ]* above). This is one of those few intransitives that take personal endings directly after stem ending in semi-vowel (*nagay-*), without connective *-a-* (see § 65 end).

[34] *hōuxa[ẹ]a'.* =*hōuxa'* YESTERDAY, (here more indefinitely as) LAST TIME, FORMERLY + deictic *-[ẹ]a'*. *-xa* is adverbial (temporal) suffix (cf. *dabalni'xa* above). *-[ẹ]a'* serves to contrast LAST TIME with NOW.

[35] *ma[ẹ]a.* =*ma* second person singular independent personal pronoun + deictic *-[ẹ]a'*, which here contrasts YOU (as former object of supplication) with I (as present object of supplication).

ga[36]	nege'ˢdam[37]	'laps[10]	yimi'xi'[11]	naga'sbindaᵉ:[38]	'yapla[39]		
that	you said to me	'Blanket	lend it to me'	when I said to you:	'People		
gwidi'[117]	yo'ᵉt'[18]	yèūk'iᵉ.'[19]	mĭ[128]	hawa'xiᵘᵉ[40]	hāᵃp'de'k',"[12]	naga'-ihiᵉ[14]	
where	they will be	if they return?'	Now	it is rotting	my child,"	he said, It is said,	
xilam[1]	sebe't'.[2]	nō'ᵘs·iᵉ[20]	sgisi[5]	yewe'ᵎᵉ.[21]	"sgā[41] + "	t'aga'ᵎᵉ.[42]	ga[8]
Roasting-Dead-People.		And next door	Coyote	he returned.	"Sgā +"	he cried.	That
gaᵉal[43]	bōᵘ[44]	ᵉa'nīᵉ[15]	yapla[39]	yewe'ᵎᵉ[21]	loho'idaᵉ.[13]		
because of	nowadays	not	people	they return	when they die.		

[36] *ga*. Anticipates quotation "*yapla* (10) . . . *yèūk'iᵉ* (11)."

[37] *nege'ˢdam*. Second personal singular subject, first personal singular object (*-dam*) of verb *naga'ᵉn* (see *nāk ik'* above). *nege-* shows palatal ablaut characteristic of forms with first person singular object. *-ˢ-* indirect object in aorist only, elsewhere *-x-*; e. g., *nĕxdaᵉ* YOU WILL SAY TO ME. Direct object is *ga*.

[38] *naga'sbindaᵉ*. Subordinate form, with temporal force, of *naga'sbiᵉn* I SAY TO YOU. *naga'sbiᵉn* = aorist stem *naga-* + indirect object *-s-* + second personal singular object *-bi-* + first personal singular subject *-ᵉn*. *naga'sbindaᵉ* is subordinated to main verb *nege'ˢdam*; its direct object is quotation "*laps yimi'xi*" (10).

[39] *yapla*. Noun formed apparently by repetition of base vowel according to Type 2. It is employed for PEOPLE in general without regard to sex.

[40] *hawa'xiuᵉ*. Third person aorist intransitive Class I of verb *hawaxiūt'eᵉ* Type 5 I AM ROTTING; aorist stem *xiu-*, verb-stem *xiwi-*. This verb is evidently compounded of *hawa'x* MATTER, PUS and verbal base *xiu-*, whose exact meaning can not be determined, as it has not been found alone.

[41] *sgā+*. Words spoken by Coyote often begin with *s-*, which has in itself no grammatical significance.

[42] *t'aga'ᵎᵉ* Third person aorist intransitive Class I of verb *t'agaĭt'eᵉ* Type 4a I CRY; aorist stem *t'agai-*, verb-stem *t'āag-*. *-ᵎᵉ* as in *yewe'ᵎᵉ*, *loho'ᵎᵉ*, and *naga'ᵎᵉ* above.

[43] *gaᵉa'l*. Postposition TO, AT, ON ACCOUNT OF, used with preceding demonstrative *ga*; *ga gaᵉa'l* = therefore. *gaᵉa'l* is itself compounded of demonstrative *ga* and local element *al* AT, TO.

[44] *bōu*. Temporal adverb NOW, TO-DAY. First *ᵉ* of *ᵉa'nīᵉ* NOT intended merely to keep up distinct hiatus between final *-ōu* and initial *a-*.

[Translation]

The child of Roasting-dead-people died. He and Coyote were neighbors to each other. Thereupon he said to him, "Lend me a blanket, for my child has died. Lend me a blanket," said Roasting-dead-people. "I'll not lend you a blanket, for where are they going to be, if dead people come back?" said Coyote. And next door returned Roasting-dead-people, and buried his child that had died.

Then, 'tis said, a long time elapsed. Now Coyote's child became sick and died. Now next door he went to Roasting-dead-people. "Lend me a blanket, for my child has died."—"What did you say?" Roasting-dead-people said that. "Yesterday indeed when I did say to you, 'Lend me a blanket,' you, for your part, did say that to me, 'Where will the people be, if they return?' Now my child is rotting," said Roasting-dead-people. So next door Coyote returned. "Sgā + !" he cried. For that reason people do not nowadays return when they die.

HOW A TAKELMA HOUSE WAS BUILT

yapla[1] wi'lī[i 2] k!emèī.[3] bēm[4] p!a-idī[ɛ]lō'[u]k',[5] eme'[ɛ]s·i[ɛ 6] hono[ɛ 7]
People house they make it. Post they set it down, and here again

p!a-idī[ɛ]lō'[u]k', he'[ɛ]me[ɛ 8] hono'[ɛ] p!a-idī[ɛ]lō'[u]k', hagamgama'n[9] p!a-idī[ɛ]lō'[u]k'.
they set it down, yonder again they set it down, in four places they set them down.

he'[ɛ]ne[10] hono[ɛ] hangili'p'[11] gada'k'[12] hagamgama'n, gada'k's·i[ɛ 13]
Then also they place (beams) across on top thereof in four places, and on top thereof

mū[ɛ]xda'nhi[14] hangili'p'. he[ɛ]ne yā'[a]s·i[ɛ 15] wi'li s·idibī'[i 16] k!emèī;
just once they place (beam) across. Then and just house its wall they make it;

5 he[ɛ]ne gada'k's·i[ɛ] mats!a'k'[17] wilī[i] he[e]la'm,[18] t'ga'l[19] ga[20] he[e]la'm
then and on top thereof they put them house boards. sugar-pine those boards

k!emèī. ganē[21] dak'da't'[22] dat!aba'k',[23] hā'[ɛ]ya[24] dat!aba'k'. ganē
they make them. And then from on top they finish it, on both sides they finish it. And then

dedewilī'[i]dadi's[25] k!emèī dak'dat's·i'[ɛ 26] daho'k'wal[27] k!emèī k!iyī'x[28]
door they make it, and from on top holed they make it smoke

gana'u[29] ba-i-gina'xdā[a].[30] ganēs·i[ɛ 31] ga'klan[32] k!emèī, xā[ɛ]īsgipli'-
therein its going out. And then ladder they make it, they notch it in several

---

[1] See note 39 of first text; § 86, 2. *yapla* is to be understood as subject of all following finite verb forms.

[2] § 86, 2; quantity of final vowel varies between *-i* and *-ī*. Directly precedes verb as object.

[3] Third personal subject, third personal object aorist of verb *k!emē[ɛ]n* Type 3 I MAKE IT; §§ 63; 65.

[4] § 86, 1; object of following verb.

[5] *p!a-i-* DOWN § 37, 13; *dī[ɛ]-* § 36, 10. *lō'[u]k'* third personal subject, third personal object aorist of verb *lō'[u]gwa[ɛ]n* Type 6 I SET IT; §§ 63; 40, 6.

[6] *eme'[ɛ]* HERE § 104; *-s·i[ɛ]* enclitic particle § 114, 4.

[7] Modal adverb § 113, 4.

[8] § 104.

[9] Numeral adverb from *gamga'm* FOUR § 111.

[10] Temporal adverb § 113, 3.

[11] *han-* ACROSS § 37, 1. *-gili'p'* third personal subject, third personal object aorist of verb *-giliba'[ɛ]n* Type 3; §§ 63; 40, 3.

[12] Postposition with force of independent local adverb § 96.

[13] See note 12; *-s·i[ɛ]* § 114, 4.

[14] *mūū[ɛ]xda'n* numeral adverb ONCE § 111; *-hi* enclitic particle § 114, 2.

[15] *yā'a* post-positive particle JUST § 114, 1; *-s·i[ɛ]* § 114, 4.

[16] *s·idib-* (HOUSE) WALL § 86, 3; *-ī'i* third personal possessive form of noun-characteristic *-i-* §§ 89, 3; 92 III. HOUSE ITS-WALL is regular periphrasis for HOUSE'S WALL.

[17] Third personal subject, third personal object aorist of verb *mats!aga'[ɛ]n* Type 3 I PUT IT; §§ 63; 40, 3.

[18] Noun stem *he[e]l-* with nominal suffix *-am* dissimilated from *-an* §§ 87, 6; 21. *wilī[i] he[e]la'm* is compound noun § 88.

[19] § 86, 1. Predicate appostive to *he[e]la'm*: THEY MAKE THOSE BOARDS OUT OF SUGAR-PINE.

[20] Demonstrative pronoun of indifferent number modifying *he[e]la'm* § 104.

[21] Temporal or connective adverb compounded of demonstrative *ga* and element *-ni* (?=*nee*) of unknown meaning §§ 113, 2; 114 end.

[22] Adverb in *-dat* from local element *dak'-* ABOVE § 112, 1.

[23] *da-* § 36, 2 end; *-t!aba'k'* third personal subject, third personal object aorist of verb *-t!abaga'[ɛ]n* Type 3 I FINISH IT; §§ 63; 40,3.

[24] Local adverb § 113, 1.

[25] *dedewilī'ida* DOOR, local phrase with pre-positive *de-* IN FRONT OF and third personal possessive suffix *-da* § 93 end. *-di's* postposition § 96 of unclear meaning here.

[26] See note 22; *-s·i[ɛ]* § 114, 4.

[27] *da-* §107, 5; *-ho'k'wal* adjective with suffix *-al* § 108, 2.

[28] § 86, 3.

[29] Postposition with *k!iyī'x ba-igina'xdāa* § 96.

[30] Third personal possessive form in *-dāa* of infinitive *ba-igina'x*. *ba-i-* OUT § 37, 12; *gin-* verb stem Type 2 or 11 GO TO § 40, 2, 11; *-ax* infinitive suffix of intransitive verbs of class I § 74, 1.

[31] See note 21; *-s·i[ɛ]* § 114, 4.

[32] § 86, 2; suffix *-n*, §§ 21; 87, 6.

sgap', [33] gwelt'gāū [34] gina'x [35] k!emèī; wili s·idibī'ī's·i^{e} [36] k!emèī. ganē
places, down to the earth going they make it; house its wall and they make it. And then

dat!aba'k' ha^{e}īt'bū'xt'bixik'^{w}. [37] ganē lep!ēs [38] hahūwū'u^{e}k'i, [39] gana't' [40]
they finish it all cleaned inside. And then rush mats they spread them out inside, of that kind

gidī [41] alxalī [42] yap!a'; p!ī^{i} [43] yogā'^{a} [44] has·s·ō^{u}, [45] gas·i^{e} [46] alxalīyana'^{e} [47]
thereon they sit people; fire its place in the center, so that they being seated

hā'^{e}ya-p!iya'. [48] gana^{e}ne'x [49] hop!è'^{e}n [50] yap!a^{e}a [51] wi'lī^{i}; [52] lep'ni'xa [53]
on both sides of the fire. In that way long ago people, for their part, their house; in winter

wilī'^{i} [52] gana't [53]. sama'xas·i^{e} [54] ana^{e}ne'x [55] alxalī, a'nī^{e} [56] wi'li gana'u. [57] 5
their house of that kind. But in summer in this way they sit, not house therein

gwa's· [58] wili yaxa [59] wit'ge'ye^{e}k'i, [60] gas·i^{e} p!ī^{i} yogā'^{a} k!emèī
Brush house just they set it around, so that fire its place they make it

habini'. [61] gana^{e}nex sama'xa alxalī, anī^{e} lep'ni'xa nat' [62] wi'li gana'u.
in the middle. In that way in summer they dwell, not in winter like house therein.

---

[33] *xā-* § 36, 7b; *-ī-* instrumental §36, 6; *xā^{e}ī-* with ^{e} to mark hiatus § 6. *-sgiplisgap'* third personal subject, third personal object aorist of verb *-sgiplisgibi^{e}n* Type 13a I CUT IT UP TO PIECES iterative of verb *-sgī'ibi^{e}n* Type 6; §§ 63; 40,13; 43,1.

[34] Local phrase with pre-positive *gwel* DOWN TO § 95 and noun-characteristic *-u* § 89, 4; *t'gā* § 86, 1.

[35] See note 30; infinitive used as noun § 74 end.

[36] See note 16; *-s·i^{e}* § 114, 4. *s·i^{e}* is appended to *s·idibī'ī* rather than *wili*, as *wili s·idibī'ī* is taken as unit.

[37] *ha-* IN § 36, 11 b; *-ī-* instrumental § 36, 6; *ha^{e}ī-* § 6. *-t'būxt'bix-ik'w* passive participle with instrumental *-i-* in *-ik'w* § 77 from verb *-t'boxot'bax-* Type 13a, verb stem *-t'boxt'bax-*; *-t'box-* ablauted to *-t'būx-* § 31, 2; *-t'bax-* umlauted to *-t'bix-* § 8, 3a.

[38] § 86, 3.

[39] *ha-* IN § 36, 11b. *-hūwū'u^{e}k'i* = *-hūwūuk!-hi* § 19 end; third personal subject, third personal object aorist of instrumental verb *-huwū'uk!i^{e}n* Type 3 I SPREAD (MAT) OUT § 64.

[40] Compounded of demonstrative *ga* THAT and *na't'* participle in *-t'* § 76 of verb *nagai-* Type 4 a DO, BE, verb stem *na-*; see Appendix A.

[41] Postposition § 96; *gi-* umlauted from *ga-* § 8, 4.

[42] *al-* § 36, 15b, here with uncertain force; *-xalī* third personal subject, third personal object aorist Type 1 in form, though intransitive in meaning § 67 footnote.

[43] § 86, 1.

[44] Third personal possessive of noun *yog-* (?) § 86, 1 with noun-characteristic *-a* § 92 III. FIRE ITS-PLACE is regular periphrasis for FIRE'S PLACE.

[45] Local phrase with pre-positive *ha-* IN; *-s·ō^{u}* §86, 1 does not seem otherwise to occur.

[46] Connective compounded of demonstrative *ga* THAT and enclitic particle *-s·i^{e}* § 114,4.

[47] Subordinate form of *alxalī*, note 42; § 70 (see transitive paradigm).

[48] Local phrase with pre-positive *hā^{e}ya-* ON BOTH SIDES OF and noun-characteristic *-a* § 95; *-pliy-a'* from *p!ī* FIRE.

[49] Modal adverb compounded of demonstrative *ga* THAT and *na^{e}ne'x* infinitive of verb *na^{e}nagai-*, verb stem *na^{e}na-* §§ 69; 74, 1; Appendix A.

[50] Temporal adverb in *-n* § 112, 3.

[51] *yap!a* see note 1; *-^{e}a* deictic post-nominal element § 102 (people of long ago contrasted with those of to-day).

[52] *wi'lī'ī* or *wilī'ī* third personal pronominal form § 92 III of noun *wi'li* HOUSE see note 2. PEOPLE THEIR-HOUSE regular periphrasis for PEOPLE'S HOUSE. Observe that predicate verb (third personal aorist of TO BE) is not expressed in this sentence.

[53] Temporal adverb in *-xa* § 112, 2.

[54] *sama'xa* cf. note 53; *-s·i^{e}* § 114, 4.

[55] Modal adverb compounded of demonstrative stem *a-* THIS § 104 and *na^{e}ne'x* see note 49.

[56] Negative adverb of aorist § 113, 3.

[57] Postposition with *wi'li* § 96.

[58] § 86, 1. *gwa's· wili* BRUSH HOUSE form compound noun § 88.

[59] Particle in *-xa* §§ 112, 2; 114, 9.

[60] *wi-* § 37, 8. *-t'ge'ye^{e}k'i* = *-t'geye^{e}k!-hi* § 19 end; third personal subject, third personal object aorist of instrumental verb *-t'ge'ye^{e}k!i^{e}n* Type 2 I PUT IT AROUND § 64; *-k!-* petrified suffix § 42, 7.

[61] Local adverb with pre-positive *ha-* IN § 95, noun stem *-bin-* not freely occurring § 86, 1, and noun-characteristic *-i* § 89, 3.

[62] Participle in *-t'* § 76; see note 40.

[Translation]

The people are making a house. A post they set in the ground, and here again they set one in the ground, yonder again they set one in the ground, in four places they set them in the ground. Then also they place beams across on top in four places, and above (these) they put one across just once. And just then they make the house wall; and then on top they place the house boards, those they make out of sugar-pine lumber. Then they finish it on top, on either side they finish it. Then they make the door, and on top they make a hole for the going out of the smoke. And then they make a ladder, they notch out (a pole), for going down to the floor they make it; and the house wall they make.

Then they finish it, all cleaned inside. Now rush mats they spread out inside, on such the people sit. The fireplace is in the center, so that they are seated on either side of the fire. In that way, indeed, was the house of the people long ago; in winter their house was such. But in summer they were sitting like now,[1] not in the house. Just a brush shelter they placed around, so that the fireplace they made in the middle. Thus they dwelt in summer, not as in winter in a house.

[1] We were sitting out in the open when this text was dictated.