HANDBOOK OF AMERICAN INDIAN LANGUAGES

BY

FRANZ BOAS

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WITH ILLUSTRATIVE SKETCHES

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

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SMITHSONIAN INSTITUTION,
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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.
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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, *Dāgelma* 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'tsi/siIN* or *Daldam'k',* on Jump-off-Joe creek (*Dipóltsi'il'du*), a northern affluent of Rogue river, her mother having come from a village on the upper course of Cow creek (*Hagwäl*). 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 North 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 (*l, ì, ìl*) and of velar stops (*q, g, qt*); 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, 251-273;* and *Religious Ideas of the Takelma Indians of Southwestern Oregon, in Journal of American Folk-Lore, xx, 33-49.*

² In the myths, *l* is freely prefixed to any word spoken by the bear. Its euphonious character is evidently intended to match the coarseness of the bear, and for this quasi-rhetorical purpose it was doubtless derivively borrowed from the neighboring Athapascan languages, in which it occurs with great frequency. The prefixed sibilant *s* serves in a similar way as a sort of sneezing adjunct to indicate the speech of the coyote. *Gwé'ì di* wëhët? says the ordinary mortal; *ipwé'ì, di,* the bear; *gypwé'ì, 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 $\gamma$, as in North German Tage; the sonants or weak surds $dj$ and $z$ (rarely); a voiceless interdental spirant $c$ and its corresponding fortis $t\epsilon!$; and a very frequently occurring $\varepsilon$ 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, $b\ddot{o}ci' cat <$pussy$)$. The fortis $k\ell$, common in Takelma, seems in the Chasta Costa to be replaced by $q!$; the Takelma vowel $\varepsilon$, 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.
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 klemn- MAKE k!eman-. We thus have, for instance:

bilwa't's jumper; bilwa'uk' he jumped
klemna't's 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:

§§ 3-4
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 \( ð^u \) and \( ù^u \) appear as \( ðw \) and \( ùw \) when followed by vowels; e. g., in \( k!ùwù\)- THROW AWAY; \( ùw \) and \( ù^u \) are equivalent elements forming a reduplicated complex entirely analogous to \(-\text{elel}-\) in 

\[\text{short diphthong.}\] 

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>( a )</td>
<td>( ãa, (a))</td>
<td>( ai, au, ai, am, an)</td>
<td>( ãi, ãu, ão, ãom, ãon)</td>
</tr>
<tr>
<td>( e )</td>
<td>( e\r, (\r))</td>
<td>( ei, eu, ei, em, en)</td>
<td>( e\r, e\r, e\r, e\r, e\r)</td>
</tr>
<tr>
<td>( i )</td>
<td>( i\i, (i))</td>
<td>( ii, ùi, im, in)</td>
<td>( ii, ii, ii, ii, ii)</td>
</tr>
<tr>
<td>( o, (u))</td>
<td>( ðo, (ð))</td>
<td>( oi, ou, oi, om, on)</td>
<td>( ði, ðu, ði, ðm, ðn)</td>
</tr>
<tr>
<td>( ù )</td>
<td>( ù\u, (\u))</td>
<td>( ùi, ùw, ùl, ùm, ùn)</td>
<td>( ùi, ùw, ùm, ùn)</td>
</tr>
<tr>
<td>( ü, (ü))</td>
<td>( ü\ü, (ü))</td>
<td>( üi, üw, ül, üm, ün)</td>
<td>( üi, üw, üm, ün)</td>
</tr>
</tbody>
</table>

Similarly \( ai, au, ði, \) and \( ðu \) may appear as \( ay, aw, ð\u, y, \) and \( ð^2w; \) 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:

- \( bili\text{ut}'e \) I jump: \( bili\text{wa}'t \) you jump = \( ðhe\text{te}'u \) he went away from him: \( ðhe\text{te}'wi'ten \) I went away from him
- \( gai\text{k}' \) he ate it: \( gayawa'ten \) I ate it = \( ðg\text{aik}' \) he grew: \( ðg\text{aik}'ya'te' \) he will grow
- \( gayau \) he ate it: \( gayawa'ten \) I ate it = \( hant'g\text{au} \) over land: \( Latg'\text{a}wa'te' \) one from \( Lat'g\text{au} \) [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 \( haye\text{w}a'd\text{a}'da \) or \( haye\text{u}\text{uxd\text{a}}'\text{da} \) IN HIS RETURNING (verb stem \( ye\text{w}-, ye\text{u}w-\) RETURN). It is acoustically difficult to distinguish sharply between the long vowel or pseudo-diphthong \( ð^u \) and the \( u \)-diphthongs of \( o \) (both \( ou \) and \( ðu \) are often heard as \( ð^u \)), yet there is no doubt that there is an organic difference between \( ð^u \), as long vowel to \( o \), and \( ð^u=ou, ðu \). Thus, in \( loh\text{onaw}ta'ten \) I CAUSE HIM TO DIE, and \( loh\text{ono}ta'n \) I SHALL CAUSE HIM TO DIE, \( ð^u \) and \( o \) are related as long and short vowel in parallel

\[\text{§ 4}\]
fashion to the ō and o of yāⁿa't' YOU WENT, and yanada'z' YOU WILL GO. On the other hand, the ō of p'ōⁿp'au- (aorist stem) BLOW is organically a diphthong (ōu), the ō of the first syllable being related to the au of the second as the iu of k'iuuk'au- (verb stem) BRANDISH is to its au. Similarly, the -ōⁿ- of s'ō'wōk'ōp'- (verb stem) JUMP is organic shortened ou, related to the -owo- of the aorist stem s'o'wōk'ōp'- as the -e⁻ of he'ëx- (verb stem) BE LEFT OVER is to the -eye- of heye'ëx- (aorist stem). A similar acoustic difficulty is experienced in distinguishing īu, (ūu) as long vowel from the u- diphthongs of ū, (ū).

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 daⁿ- ear, but da- mouth
- wā'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; yāⁿda'z' he WILL SWIM, yada'z' 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: aiz, au, euz, 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'iz he said; but naga'idai when he said
- sgele'uz he shouted; but sgele'uda 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 gāː:

\[
\begin{align*}
gāː lōhō't'e^e & \text{ in that case I shall die} \\
gāː'a ga'x'a'l & \text{ for that reason}
\end{align*}
\]

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 ōa (barring the parasitic element) corresponds to the a of HAHN.

A labial coloring of the a (i.e., ɵ as in German voll) frequently occurs before and after kʷ:

\[
\begin{align*}
gāhókʷ & \text{ planted, sown} \\
іkʷwā'akʷwōk' & \text{ he woke him up}
\end{align*}
\]

But there were also heard:

\[
\begin{align*}
sək'akʷ & \text{ shot} \\
malākʷwa & \text{ he told him}
\end{align*}
\]

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 eː is very open in quality, being pronounced approximately like the ei of English THEIR (but of course without the r- vanish) or the ë of French FÊTE; eː, though unprovided with the mark of length, will be always understood as denoting the long vowel (pseudo-diphthong) corresponding to the short e; while ë will be employed, wherever necessary, for the long vowel without the parasitic -e. The close ë, as in German REH, does not seem to occur in Takelma, although it was sometimes heard for iː in the words lāːlē he became, lāːlēt'am you became, and other related forms, ë was generally heard, and may be justified, though there can be small doubt that it is morphologically identical with the ë of certain other verbs.

The i is of about the same quality as in English HIT, while the long iː 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 gwiː, diː, and the others; and indeed the texts sometimes show such longer forms.

¹The word yeve'ː he returned, e.g., was long heard as yawē'ː, but such forms as yeve return! show this to have been an auditory error.
The o is a close vowel, as in German sonn, 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:

\[ ùs'to'p'al \] sharp-clawed  
\[ dets'tugut' ù \] sharp-pointed  

and also the u- quality of the parasitic element in the long close vowel \( ù \). The short open \( ù \), 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 \( û \) is not identical with the German \( û \), but is somewhat more obscure in quality and wavers (to an un-Indian ear) between the German short \( û \) of mütze and \( u \) of muss; sometimes it was even heard with the approximate quality of the short \( ù \) of götz. The long \( ûû \) is, in the same way, not exactly equivalent to the long \( û \) of the German stüß, but tends in the direction of \( ùû \), with which it frequently varies in the texts. It is somewhat doubtful how far the two vowels \( û \) and \( û \) 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 \( w \), \( û \) is apt to be heard as \( ū \), — k’awû’z they ran away, ûyû’es’ he laughed, iyûyi’si, he keeps nudging me, — otherwise often as \( u \).

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

\[ hêwile’mêxûm \] he killed us off (for -am)  
\[ xûm \] in water (for xam)  

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

\[ dak’tbe’esk’tbagames \] 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 \( hē\text{ne} \text{ THEN} \)) and conjunctive particles (such as \( gānēhī\text{ AND THEN} \); \( nāgā\text{SO, BUT THEN} \)); 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:

\[
\text{ganēhī}^\sharp \text{ devenxa } lā\text{le} \text{ hono}^\sharp \text{ p'e}l'e'\text{xa}s, \text{ literally translated, And then to-morrow (next day) it became, again they went out to war}
\]

All that precedes the main verb-form \( p'e\text{le}x'\text{a}s \text{ THEY WENT OUT TO WAR} \) 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:

\[
nāgā'-\text{ida}'^\sharp \text{ when he said, but } nāgā-\text{ida}''^\sharp \text{ when you said}
\]

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 (\(\uparrow\)).

(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 (\(\approx\)).

(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 (\(\downarrow\)).

The "raised" pitch (\(\uparrow\)) 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 (\(\downarrow\)) within one syllable; i. e. (if — be employed to denote an unaccented syllable), (\(\uparrow\)) + — — — — (\(\downarrow\)). 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 \(d\i\), and obtain the form helela\(t\)'\(d\i\) DID HE SING? (The \(t\) 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 \(t\) sinks to about the level of the e-vowels, and the \(d\i\) 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 § 5
...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. 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:

\[ \text{he- le- la'-ti- di} \]

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 (a, a'i) becomes a short vowel or shortened diphthong with raised pitch (a', a'i). Diphthongs consisting of a short vowel +l, m, or n, and provided with a rising pitch, ought, in strict analogy, to appear as aň, aľ, ań; and so on for the other vowels. This is doubtless the correct representation, and such forms as:

- *naňk' he will say, do*
- *gwalt' wind*
- *dasmayamî he smiled*
- *wuľx enemy, Shasta*

were actually heard, the liquid or nasal being distinctly higher in pitch than the preceding vowel. In the majority of cases, however,
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 (–), 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 — —, and to make no distinction in accent between yeve’ida e when he returned and yeve’te e 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 tilmôm he killed him and yewait’e e I spoke may be approximately represented in musical form as follows:

The falling pitch (–) 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
yeve’ida e when he returned
yeve’te e he returned

will serve to illustrate the character of the falling pitch.

§ 5
The pronunciation of the diphthongs is now easily understood. A shortened diphthong \( (a'i, a'i') \) sounds to an American ear like an indivisible entity, very much like \( a_i \) and \( a_u \) in \( \text{HIGH} \) and \( \text{HOW} \); 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 \( naga'-\text{id}a'z \) instead of \( naga'-\text{id}a'z \) \textit{when he said}; a diphthong with rising pitch \( (a'i) \) 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 \( (a'i, a_u, a_l, a_m, a_n) \), being etymologically single vowels or semivowels, are always unitalonal in character; they can have the raised, not the rising accent. Contrast the inorganic \( a_u \) of

\[ \text{bila'uk'} (=*\text{bilw'k'}, \text{not} *\text{bila}{\text{n}k'}) \text{ he jumped; cf. bilwa'z's JUMPER} \]

with the organic \( a_u \) of

\[ \text{gay\text{a}{\text{n}}} \text{ he ate it; cf. gaywa'z'n I ate it} \]

Contrast similarly the inorganic \( a_n \) of

\[ \text{klema'nk'} (=*\text{klemn'k'}, \text{not} *\text{klemn}{\text{a}{\text{n}k'})} \text{ he made it; cf. klemna'z's maker} \]

with the organic \( a_m \) of

\[ \text{dasmayam} \text{ he smiled; cf. dasmayama'z'n I smiled} \]

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.
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'el black paint, writing; sēl kingfisher
- lā'p' leaves; (1) lāp' he carried it on his back, (2) lāp' become (so and so)!
- sā'at' his discharge of wind; sāt' mash it!
- wilt' his house; wīlt' house, for instance, in dāk'wīlt on top of the house
- he'el 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
- wayə'a his knife
- waya' he sleeps
- wayán he put him to sleep
- kīwā'ya' (= kīwā'ya') 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:

- tliomoma'ən I kill him
- tliomoma'nda as I killed him

§ 5
The third person aorist of all intransitive verbs that take the catch as the characteristic element of this person and tense, as in:

ya' he went
yã'ada' when he went

The second person singular possessive of nouns whose ending for this person and number is -t', as in:

t!išt' your husband
ela'lt' your tongue

Contrast:

t!išt'k' my husband
ela'lt'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!emë'n I make it
dit!ugë'n 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 1a:

dō'wa'ma'n I shall kill him
t!omoma'n he was killed

Contrast:

xō'wa'ma'n he dried it

Like k!emë'n in accent we have also:

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

Contrast:

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

§ 5
(4) The verbal suffix -aid- takes the falling pitch:
  sgelewaw'lda'n I shouted to him
  sgelewaw'lt' he shouted to him
Contrast:
  gwalt' 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'nī' 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 *a'nī'. The same thing happens when two verbal prefixes, the first ending in and the second beginning with a vowel, come together. Thus:

\[
\begin{align*}
  de- & \text{ in front} \\
  xāa- & \text{ between, in two} \\
  + & \text{ with hand} \\
\end{align*}
\]

Generally appear as:

\[
\begin{align*}
  de%i & \\
  xāa%i & \\
\end{align*}
\]

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

1 Those familiar with Indo-Germanic 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-accent 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 (·).

§ 6
nouns, pronouns, and adverbs, is regularly separated from a preceding vowel by the catch:

- maw'na' but you, you truly
- bōwu'a 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:

- ktw'ya just grass (== kwat+-a')
- āi'ya just they (== āi- they + -a')
- ha'wi- (= ha-w- under + i- 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' wōk' (= ge' + wōk') there he arrived
- be' wādi' (= be' + wādi') day its-body = all day long
- ge' yā'hi (== ge' + yā'hi) just there indeed

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

- me'unwōk' he arrived here, and
- me'yēw come here!

in which the catch is organic, being an integral part of the adverb me' hither; contrast:

- me'gini'k' he came here, with
- ge' gini'k' he went there.

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

- ha'win'da inside of him; but habe'bin' at noon
- de'wiliwia'us they shouted; but desebe'n he said so
- aba'wa'gewenhi he returned inside with him; but abaini'k' he went inside
- wi'vā my younger brother; but wiha'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:

- al'vāsidide to my body; but alsō'ma'l to the mountain
- al'gwo he looked; but alxīk' he saw him
- bā'ge'yo he lay belly up; but gelk'iyi'k' he turned to face him
- gwen'wat'gets'ik'wa his (head) lay next to it; but gwen'iwila'us he looked back
- yiwin' wō'k'ī (= yiwin speech + wō'k'ī 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'ínwáts!agi"n I touch his nose
ašít'bagá't'bak' he struck them

§ 7. DISSIMULATION OF u

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

wahawaxi_wgwa'én I rot with it, for *xiugwa'én

Compare:

hawaxi'w he rots
wahawaxi_wgwa'n I shall rot with it

Similarly:

bilik'w he jumped having it, for *biliak'w (stem biliu-)
wilik'w he proceeded with it, for *wiliak'w (stem wiliu-)

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

yék'w he returned with it, for *yéak'w (= yeu- gw- k')
me'ýép' come back! (pl.), but sing. me'ýéa
ye'ba't' let us return! for *yèuba't'

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

yék'w bite him!
(al)ýép' show it to him!

A similar dissimilation of an -u- after a long vowel has in all probability taken place in the reduplicating verb làlìwi'én I CALL HIM BY NAME (leila'usi he calls me by name) from *làu̲lìwi'én (*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- (-i̲i-) 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 §§ 7–8
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:

\[
\begin{align*}
\text{waklayayini'\text{en} } & \text{I caused him to grow with it (but klayayana'\text{en})} \\
\text{I caused him to grow, with preserved -a-, because of following -a'\text{en}, not -i'\text{en})} \\
\text{wakleyeya'\text{en} } & \text{he caused me to grow with it} \\
\text{waklayaya'\text{en} } & \text{I caused thee to grow with it} \\
\text{iyulu'\text{yili'\text{en} } } & \text{I rub it (from -yali'\text{en})} \\
\text{iyulu'yalhi } & \text{he rubs it}
\end{align*}
\]

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:

\[
\begin{align*}
\text{wagawin'\text{en} } & \text{I shall bring it to him} (\text{from -awi'\text{en}; cf. wagawa'sbi'\text{en}}) \\
\text{I brought it to you)
\end{align*}
\]

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

\[
\begin{align*}
\text{wagawin'\text{en} } & \text{I shall bring it to him}
\end{align*}
\]

so that the future stem must be set down as wag-, 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 -ii- denoting position:

\[
\begin{align*}
\text{s'as'ini'\text{t} } & \text{he stands (cf. s'a'sant'\text{a'\text{a}} he will stand)} \\
\text{tlobigii } & \text{he lies as if dead (cf. future tlobaga'sdii')}
\end{align*}
\]

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

\[
\begin{align*}
\text{bubi'\text{t'k'} } & \text{my arm (cf. buba'\text{en} arm)} \\
\text{t'ga'\text{lt'}giliizek' } & \text{my belly (for *t'gal'tgali-)}
\end{align*}
\]

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

§ 8
-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:

\[
\begin{align*}
\text{alb} & \text{t'baga}'t'bigi'n I beat him (cf. -t'baga'bak' he beat him) \\
\text{ts'} & \text{ele'ts}'i'lib'in I rattle it (cf. ts'ele'ts'alhi he rattles it) \\
\text{ismi} & \text{li'smilin} I swing it (cf. ismi'lsma'l swing it!)
\end{align*}
\]

(b) The causative element -an-:

\[
\text{wap}!\text{agini}t'n I cause him to swim with it (cf. p!agana't'n I cause him to swim)
\]

See above:

\[
\text{waklayayini}t'n I cause him to grow
\]

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

\[
\text{wat}!\text{omomini}t'n I kill it for him with it (cf. t!omomana't'n I kill it for him)
\]

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

\[
\text{alxiiximis} \text{ one who sees us (cf. alxiixam he sees us)}
\]

4. By the suffixed local element -di- ON TOP OF added to the demonstrative pronoun ga THAT to form a general local postposition:

\[
\text{gidii} \text{ on top of it, over (so and so)}
\]

Compare the similarly formed:

\[
\begin{align*}
\text{gada'k'} & \text{ above} \\
\text{gada'l} & \text{ among}
\end{align*}
\]

and others.

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

\[
\begin{align*}
\text{t}!\text{omoxinik'} & \text{ we kill each other (cf. t}!\text{omoxa}t'\text{n they kill each other)} \\
\text{daxinigam} & \text{ we shall find each other (cf. daxan}t'\text{ they will find each other)}
\end{align*}
\]

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:

\[
\begin{align*}
\text{lohö}nini'ninini't'n I caused him to die (i. e., killed him) for him (cf. lohö\text{nana}'nhi he killed him for him) \\
\text{ik}!\bar{\text{umminini}'}nki' he will fix it for him (compare \text{ik}\!\text{wa'ma'n he fixed it})
\end{align*}
\]
§ 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'I, 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, klw, 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'n* I desire it
*gelguluk'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-)
*güwot'i* his heart
*duüwot'i'gwa* her dress
*dâk'w* woman's garment
*yo'k'luwâ* 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'ôya'n* I know it
*yo'k'y'an* 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 -i-:

*s'uw'il'î* he sits; but
*s'uw'alt'âa* he will sit

§ 9
The first form was, for some reason or other, often heard, perhaps misheard, as *svbetulz.

§ 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$ I go somewhere should be, for example, *gink'de$; but, instead of this somewhat difficult form, we really get gina'k'de$. 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:

ksiyâ'k'de$ I shall go; aorist, ktiyi'k'de$

dikxîwî'hîk' (=theoretical *alxîk'llîk') he kept looking at him;
aorist first person alxîk'llîhî$n I keep looking at him
kìema'n make it! (=theoretical *kÈëmn); cf. kìema'n I shall make it
baisîye'wà'n drive out sickness!; aorist, -ywën he drove out sickness
sgela'wâ't'e$ I shall shout (=theoretical *sgelewî't'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$ I shall move (stem wism-); aorist, wits'liût'e$ I moved

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

1Such an -a may stand as an absolute final; e.g., ba-łnapa' start in singing! (stem naap-), aorist third person, -nu'ta'n. The form napa' 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., dinxâ'sk' (long object) lay stretched out; so that a phonetic irregularity must exist in one of the two forms. Either we should have *nâ'sk', or else *dinx'le'sk' or *dinx'la'ap' is to be expected. On closer examination it is found that the -k' in forms like dinxâ'sk' is a grammatical element added on to the future stem dinxâ'sk' whereas in napa' the -a 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.

§ 10
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, awy, āwy, ain, āin, alw, āl̃w; those with initial short vowel, like ain, have, like the long diphthongs (e. g. ān), 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 qualitatively they now involve only two sonantic elements. An exception seems to be afforded by double diphthongs in -wy (e. g. -awy), which become dissyllabic by vocalizing the y to i, in other words, -awy becomes -awi:

\( ts!aw'i'k' \) he ran fast; cf. \( ts!a-uyay'\)s fast runner, \( ts!awaya't' \) (aorist) you ran fast
\( yawi't'e\) I shall talk; cf. \( yawaya't' \) (aorist) you talked
The -awi- (=theoretic -awy-) of these forms is related to the -away- of the aorist as the -il- of bilwa's jumper to the -iliw- of the aorist biliwa't' you jumped.

Such double diphthongs as end in -w (e.g. -aiw, -aiuw) simply lose the -w:

\[
\text{ga}t \text{ eat it!} \quad (=\text{*gaw}w); \quad \text{ga}t\text{' he ate it} \quad (=\text{*gawkw}')
\]

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:

\[
\begin{align*}
gelhe\text{we'ha}zn & \quad (=*hauzn) \text{ I think; compare gelhe\text{we'hau he thinks}} \\
im\text{i'ham}n & \quad (=*hamzn) \text{ I sent him; compare imi'ham he sent him} \\
mol\text{lo'mala}zn & \quad (=*malzn) \text{ I stir it up; mol'tman} \quad (=*maln) \text{ I shall stir it up; compare parallel forms with connecting a: mol't'-mala'n, mol't'malan, and third person aorist mol't'mal} \\
m\text{aminma}zn & \quad (=*manzn) \text{ I count them; compare dam\text{a}nm\text{i}zn} \quad (=*manzn) \text{ I counted them up}
\end{align*}
\]

Examples of simplified over-long diphthongs are:

\[
\begin{align*}
d\text{ai'di'n} & \quad (=*di'di'n) \text{ I shall go to him for food; compare} \\
d\text{ai'e} & \quad (=*di'e) \text{ I shall go for food} \\
et \t g\text{e lx}i & \quad (=*ti'gelxzi) \text{ wagon (literally, rolling canoe); compare} \\
et \t g\text{e}ya'lx & \quad \text{it rolls} \\
d\text{a}t\text{a}g\text{a}zn & \quad (=*t'aga}z\text{n} \text{ I build a fire; compare} \\
d\text{a}t\text{a}g\text{al} & \text{ he builds a fire} \\
k\text{lem\text{e}zn} & \quad (=*k\text{le}m\text{e}zn) \text{ I make it; compare k\text{le}m\text{e} he makes it} \\
o\text{yo}zn & \quad (=*oyzn}z\text{n} \text{ I give it; compare third person oy\text{on he gives it}
\end{align*}
\]

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):

§ 11
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 / (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, /kw/ 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 (\(\beta\)) as organic consonant is found only medially and finally; the /t/ only

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| ts'la-imk' (but also ts'layám k') he hid it; compare ts'a-imá'n I shall hide it oinfk' 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'laya'mxamk'na since he concealed it from us

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

ts'atm'ak'whidden
oin give it! (yet ts'laya'm hide it! with inorganic a)

Consonants (§§ 12-24)

§ 12. System of Consonants

The Takelma consonant system is represented in the following table:

<table>
<thead>
<tr>
<th>Labial</th>
<th>Dental</th>
<th>Sibilant</th>
<th>Palatal</th>
<th>Guttural</th>
<th>Fauval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>t</td>
<td>ts', ts'</td>
<td>y</td>
<td>k'</td>
<td>s'</td>
</tr>
<tr>
<td>b</td>
<td>d</td>
<td></td>
<td>v</td>
<td>g</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>v. unv.</td>
<td>w</td>
<td>l</td>
<td>z</td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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 / (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, /kw/ 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 (\(\beta\)) as organic consonant is found only medially and finally; the /t/ only

§ 12
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:

\[
\begin{align*}
\text{dā'^an- ear; tā'^an} & \text{ squirrel} \\
\text{bō'u now; pō'^u- to blow} \\
\text{ga that; k'α what} \\
\text{dī' on top; tī'- to drift} \\
\text{bō'ud- to pull out hair; pō'^d- to mix} \\
\text{dā'g- to build fire; tā'^g- to find; tā'^g- to cry} \\
\text{gai- to eat; k'ai- thing, what}
\end{align*}
\]

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, t, q). 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 \( (p!, t!, k!, ts! \text{[=}ts^e\text{]}), \) and \( z, \) 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 \( p^e, t^e, \) and \( k^e, \) respectively, or rather to \( b^e, d^e, \) and \( g^e, \) 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:

\[
yap!a' \text{ and } yap'a' \text{ man} \\
gâ'p!ini' \text{ and } gâ'p'iini' \text{ two}
\]

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 fortes:

\[
åk!a' \text{ he indeed (=}åk' he + deictic } ^z\text{a'; cf. } ma'^z\text{a' you indeed)} \\
sêk!eit' \text{ you shot him (=} sêk' he shot him + (')eit' you are)} \\
mâp!a' \text{ just you [pl.] (=} mâp' you [pl.] + } ^z\text{a')}
\]

Nevertheless, \( p^e, t^e, k^e \) 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 \( p^e, t^e, \) and \( k^e \) 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 \( ^z\text{p}^e \) (or \( ^z\text{b}^e, \) better as \( ^z\text{b}^e, \) 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. That the fortis consonant really does involve an initial glottal catch is abundantly illustrated in the author’s manuscript material by such writings as:

\[
\begin{align*}
dülü'tt!ili^n & = dülü'tt!ili^n \text{ I stuff it} \\
dült'ti!lin & = dült'ti!lin \text{ I shall stuff it} \\
leme'čki!a-uda & = leme'čki!a-uda as they go off
\end{align*}
\]

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 \( i\}, u\), \( l\), \( l\) to \( i, u, l, m, n\).

There is no tenuis or media affricative \( (ts—dz; ts', tc—dz', tj) \) corresponding in Takelma to the fortis \( ts!, ts'! \), though it seems possible that it originally existed but developed to \( x \) (cf. \( yegwexi \) they bite me [upper Takelma \( yegwê'tci \)]; \( ts'!i'xi \) dog [from original \( *ts'!its'i?\)]). Morphologically \( ts!, ts'! \) stand in the same relation to \( s, s' \) that \( p!, t!, k! \) 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:**

\( dööm-, büüg-, gööd-, \)—as are the

**Aorist stems:**

\( ts'ladad- \) mash, \( ts'elel- \) paint—to their corresponding

**Future stems:**

\( s'ääd-, s'eël- \)

Of the other consonants, only \( x, -'w, \) and \( s, s' \) call for remark. \( x \) is equivalent to the \( ch \) of German \( dach, \) though generally pronounced further forward \( (x) \). It frequently has a \( w \) tinge, even when no \( u-\)vowel or diphthong precedes, particularly before \( i \); examples are \( hä'pxö'i \) child and \( hax'iyä (ordinarily haxiya) \) IN THE WATER. \( -k'w, \)

---

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

in which combination alone, as we have seen, 'w occurs, is the aspirated tenuis创业' 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 fortles 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 e:  

s'ant'e I shall stand  
ogu'si he gave it to me, but ogu'sbi he gave it to you  
löw's'ti his plaything  
īlasqi'n I shall touch it  
le'psi feathers  
yōls steel-head salmon  
ha-uhana'ts 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, fortles, 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:  
gaya'a he ate it (cf. gayawa't' I ate it)  
gāt grow! (cf. gāyaya'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:  
še'ba't'n I roasted it; sēp' he roasted it  
xebe't'n he did it; xēp'go' I did it  
xuduma'ldo'n I whistle to him; xuduma'lt', xuduma'lt'gwa he whistles to him  
tlayaga't'n I found it; tlaya'k' he found it, dāk'na' since he found it  

§ 13
A final fortis also becomes the corresponding aspirated surd (-ts!, becoming -č's), 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 fortés given above (§ 12). Final p!, for instance, really čb(č), 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 čb still remains. Examples are:

wasgā'p! in I shall make it tight; wasgāʧp' make it tight
k'ap!a'k'ap'na'n I throw them under (fire, earth); future, k'aʧp' k'a'p'nan
bāxō'čt!an I shall win over him; bāxōčť! win over him! bāxōčť'go
I won over him
alxī'k't!in I shall see him; alxīʧk' see him! (contrast alxīʧgi'n I saw him; alxīʧk' he saw him)
ha:wīha'nts!in I shall cause it to stop (raining); ha:wīha'nts' make it stop raining!
nō'ts!al'gwan next door to each other; nōts! next door
ha:xim!ts!adan tleimi'ś six times 100; ha:xim!ś 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, §§ 14–15
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.

<table>
<thead>
<tr>
<th>( p' )</th>
<th>( i' )</th>
<th>( k' )</th>
<th>( s )</th>
<th>( x )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( b )</td>
<td>( t'braq- ) hit</td>
<td>---</td>
<td>sbing beaver</td>
<td>?</td>
</tr>
<tr>
<td>( d )</td>
<td>---</td>
<td>---</td>
<td>edaw'is dagwa- put on style</td>
<td>xdeit' flute</td>
</tr>
<tr>
<td>( g )</td>
<td>( t'geib- ) roll</td>
<td>---</td>
<td>sgi'it coyote</td>
<td>---</td>
</tr>
<tr>
<td>( gw )</td>
<td>( t'gwe' ) thunder</td>
<td>---</td>
<td>sguwin' raccoon</td>
<td>---</td>
</tr>
<tr>
<td>( s )</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>( z )</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>( l )</td>
<td>---</td>
<td>---</td>
<td>?</td>
<td>xliwi war feathers</td>
</tr>
<tr>
<td>( m )</td>
<td>( t'mila'p ) smooth</td>
<td>---</td>
<td>sma-im- smile</td>
<td>?</td>
</tr>
<tr>
<td>( n )</td>
<td>---</td>
<td>---</td>
<td>snä mammal</td>
<td>xal'k' acorn mush</td>
</tr>
<tr>
<td>( y )</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>( w )</td>
<td>( t'waplat'warp' ) blink</td>
<td>( [k' w a o q w - ) awaken]</td>
<td>swat'p- pursue</td>
<td>?</td>
</tr>
</tbody>
</table>

It will be noticed that only \( i' \) \((p' \) 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 \( xw-\) 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:

\[ t!weple\l!wepx \] they fly about without lighting; future \( dwep'\-dwa'pxdä\a\]

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 velars and voiceless spirants ($p'$, $t'$, $k'$, $k''$, $s$, 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.

<table>
<thead>
<tr>
<th></th>
<th>$p'$</th>
<th>$t'$</th>
<th>$k'$</th>
<th>$l$</th>
<th>$m$</th>
<th>$n$</th>
<th>$s$</th>
<th>$x$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$p'$</td>
<td>—</td>
<td>$t't'y$</td>
<td>$k'$</td>
<td>$l$</td>
<td>$m$</td>
<td>$n$</td>
<td>$s$</td>
<td>$x$</td>
</tr>
<tr>
<td>$t'$</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>$k'$</td>
<td>$t't'y$</td>
<td>—</td>
<td>$l'm$</td>
<td>$m$</td>
<td>$l$</td>
<td>$n$</td>
<td>$s$</td>
<td>$x$</td>
</tr>
</tbody>
</table>

No examples of $-mk''$ and $-npx$ have been found, but the analogy of $-lpk$ 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 $-lk''$ and $-nk''$. It is possible also that $-lsk'$, $-msk'$, and $-nsk'$ exist, though their occurrence can hardly be frequent. Of final clusters of four consonants, $-ntp'k'$ 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 $s'e'nsanp'k'$ he whooped. However, the combinations $-lpk'$ and $-npk'$ (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. $des'lpk'$). Most, if not all, of $§ 16$
the preceding final combinations may furthermore be complicated by
the addition of \(\ell\), which is inserted before the first tenuis or voiceless
spirant of the group, i.e., after a possible liquid or nasal:

\[
\begin{align*}
\text{\(\bar{\ell}\)}t's\cdot k' & \text{ he laughed} \\
\ell'c'o'px & \text{ dust, ashes.} \\
t's'\ell'u'n^2s & \text{ (deerskin) cap}
\end{align*}
\]

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 \(t'gwe'lk'\)); while those that end in \(s\) can always be sus-
pected 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., \(s'w't'alp'k' = s'w'\ell a l + p' + k'\)). Further investigation shows
that only two of the combinations, \(-t'p'\) (second personal plural sub-
ject aorist) and \(-t'k'\) (first personal singular possessive) are suffixal
units; though \(-t'p'\) might be ultimately analyzed into \(-t'\) (second per-
sonal 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; \(k\) may also be found before the vowel.

§ 17. MEDIAL COMBINATIONS

A medial combination consists simply of a syllabically final com-
bination or single consonant + an initial combination or single con-
sonant, 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:

\[
\begin{align*}
t'\ellomoma'n-ma & \text{ when he was killed} \\
\ell'\ellk'\)-\(na & \text{ when he sang} \\
dak'\)-\(t'\ell'\ellk^4ba^n & \text{ I put hollowed object (like hat) on top (as on head)}
\end{align*}
\]
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:

\[
\begin{align*}
g\text{a}k\text{'na} & \text{ when he ate it (}= g\text{a}k\text{'-na}) \\
y\text{o}k\text{'yan} & \text{ I shall know it (}= y\text{o}k\text{'-yan})
\end{align*}
\]

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’-nae 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:

\[
\begin{align*}
x\text{ep’}g\text{a} & \text{ I did it; } x\text{ep’}k’ \text{ he did it} \\
\end{align*}
\]

Contrast, with constant -k’-:

\[
\begin{align*}
al\text{ax’k’a} & \text{ I saw it; } al\text{ax’k’} \text{ he saw it}
\end{align*}
\]

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\text{b}- do, so that xep’ga stands for a theoretical *xebk’a, a phonetically impossible form. Other examples are:

1 This form is distinct from alxi’k’ LOOK AT IT!, quoted before. The imperative theoretically = *alxi’k! the text form = *alxi’k’.
ga-iwa'tba² ye shall eat it; gayawa't'p' ye ate it
di'n²zga² I (as long object) was stretching out; di'n²zk' 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 condi-
tion, 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 par-
   allel forms, or from other forms of the same stem where the phonetic
   conditions were such as to preserve the dental. Thus gwidi'k'° he
   threw it represents an older reduplicated *gwidi'k'°t' (= gwidi-i-gwd-),
as proven by the corresponding form for the first person, gwidi'k'°da'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 phonet-
ically such as not to permit of a final -t', and are therefore histori-
cally identical with the other participial forms that show the -t':

   sālc' shooting (= *sālc't')
   dōxa gathering (= *dōxt')
   ha-t'ulk' following in path (= *t'ulk't')
   sana'p' fighting (= *sana'p't')

   Compare:

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

The combinations -ktk (1ewtg_) and -k'°tx-, however, seem to
lose, not the -t', but the -k'°-, whereupon -tk (-t'g-) remains, while
-t'x- regularly becomes -s- (see § 20, 2):

he 'gwida't'k' (= *gwida'k'°t'k'-k', inferential of gwidi'k'°d-) he lost it
he 'gwida't'ga° (= *gwida'k'°t'-ga°) I lost it
xamgwidi'sgwide° (= *gwidi'k'°t'-x-gwi- or possibly *gwidi'k'°t'-
gwi-) I drown myself

§ 18
2. Somewhat less transparent is the former existence of a -w after consonants. The following examples have been found in the material at disposal:

*lål* she twined basket (*=̂*ləlw*); cf. *ləwa*n I twine it (that -w really belongs to the stem is shown by the forms *ləw*na*n I shall twine it; *ləw*I twine it for me!)

*klël* basket bucket (*=̂*kləlw*); cf. *klëlv*I her bucket

*k'ål* penis (*=̂*k'əlw*); cf. *k'avl*I his penis.

*sgele*l* (=*=sgelelw) he keeps shouting; cf. *sgelew*I you shout, *sgelew*I I shall keep shouting

*alsgəlk'a*c* (=*=sgəlw*k'a*c*) I turned my head to one side to look at him; cf. *alsgəl*v*I I shall turn my head to look at him

*alsgele*l*xi* (=*=sgelelxI) he keeps turning his head to one side to look at me; cf. *alsgalə*v*I I keep turning my head to look at him, future *alsgalv*I

This process, as further shown by cases like *ga* eat IT! (*=̂*ga*vw*), is really a special case of the simplification of double diphthongs (see § 11). Perhaps such "dissimilated" cases as *lå*- and le*- (for *ləu*- and *ləw*-), 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 *t̂heqwe* hak*"* he works, cf. *t̂heqwe* hak*"*n I work, and *t̂heqwe* hak*"*nana*k* we work. Certain verb-forms would be satisfactorily explained as originally reduplicated like *gu*di*k*", if we could suppose the loss of certain final consonants:

*gin*I*k* he went somewheres (= ?*gin-*I*-k"*n)

*gelgulu*k*" he desired it (= ?*gul-*u*-k"*w*l)

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. *kə*g*mes ke*I RELATIVES (cf. Takelma *kə*ms kə*I MY KIN*).
k- consonants is labialized, the resulting k- sound preserves the labial affection. Examples of consonant simplification are:

- *mo't'ek* my son-in-law (= *mo't-* + -dek*)
- *lāk'wōk* he gave him to eat (= lāg- + -k'wōk*)
- *dek!iya'k'it* if it goes on (= *dek!iya'g-* + -k'it*)
- *lēgwa'n* I shall fetch them home (= lēg- + -gwan); cf. aorist *ligigwa'n*
- *di hīla'kwemē'n* I make him glad (= hīla'k'u glad + klemē'n I make him)

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

- *gināk'wi* if he comes (= *gināg-k'-k'it*)

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

- *xemela't'̃di* do you wish to eat? (= *xemela'it* + *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 *sāq*- SHOOT are derived:

1. Imperative *sāk'* shoot it!
2. Potential *sāk'* he can, might shoot it
3. Participle *sāk'* shooting (= *sāk't*)
4. Inferential *sāk'* so he shot it (= *sāq-k*)

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

1. *yana' go!
2. *yana'z* he would have gone
3. *yana't* going
4. *yana'k'* 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 *k* + *h* becomes k', *kl* (or *k'*) + *h* becomes *k'*, *gw* or *k'w* + *h* becomes *k'w*, *klw* (or *k'w*) + *h* becomes *k'w*. 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:

$t'gunak'i^z (=t'gunak' + quotative -hi^z)$ it became warm, it is said
$naganâ'k'i^z (=nagxnâ'ak' + quotative -hi^z); see § 22) he always said, it is said
$gwen-he'k'vâ'gw- (=reduplicated he'gw-hâ'gw-) relate; with accent thrown forward $gwen-hegwa'gw-an-i- (=hegw-hâ'gw-); compare, with preserved $h$, $gwen-hegwe'haqw-an-i$ tell to
$s'o'wo'k'\delta p' (=s'o'wo'k'-hap' = *s'o'wo'k'-hap') he jumps ($\delta = wa; see § 9) he jumps; compare $s'owo'k'!ana'n I cause him to jump

Similarly, $d$ or $t' + h$ becomes $t'$, $t'$ (or $t''$) + $h$ becomes $t''$; $b$ or $p' + h$ becomes $p'$, $p'$ (or $p''$) + $h$ becomes $p''$:

gana't'i (=gana't' + emphatic -hi) of just that sort
$yo't'i (=yo't' being + emphatic -hi) alive; compare plural
$yo't'hi$
$he''sgu''t'' òk''w (=sgu''t''-hak''w) cut away; compare $he''sgo''w'lan$
$I shall cut it away

$s$ and $x$ also generally contract with $h$ to $s$ and $x$, e.g.:

$nö's''i^z (=nö's' + -hi^z) 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 $z$.

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

$alxi'^zi$ he saw me ($=al-xi'^zi$-g-xi); cf. $alxi'^zi^n$ I saw him
$k''wâ'xde'z I awoke ($=k''wâ'gw-x-de'z$); cf. $uk''wâ'gw'i^n$ I woke him up
$gelgulu'xbi^n I like you ($=-gulu'gw-x-bi^n$); cf. $-gulugwa'z^n$ I like him
$bâ'qin'i'x (clouds) spread out on high ($=-dini'k!-x$; cf. $di'nik!a^n$ I stretch it out
$lu''xwa'to trap ($=lu''k!-x-a')$; cf. $lo'k!ivan I shall trap (deer)
$yêxwik' (=yêgw-xink') he will bite me; but $yêxda'' (=yêgw-x-da') you will bite me

§ 20
2. $tx$ always simplifies to $s$, $t!x$ to $^s$. 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:

- $leb{e}'sa^z$ she sews ($=lebe't-xa^z$); cf., for $-t'$ of stem, $lebe't$ she sewed it, for suffix $-xa^z$, $lobo'xa^z$ she pounds
- $sgelewa'lsi$ he shouts to me ($=sgelewa'ld-xi$); cf. $sgelewa'lda^z n$ I shout to him
- $dâ'isbodoba'sa^zn$ they pull out each other's hair, with reduplicated stem $bodobad- + x$-
- $xâ'tbe'sek'tbagams$ it is all tied together ($=-t'bagam-t-x$); cf. $xâ't'bâ'agmanda^zn$ I tie it together
- $hansgô'as$ he cut across, lay over (road) ($=-sgô'^t!-x$); cf. $hansgô'^t!an$ 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 $s$, $ts!x$ ($=^s$sx) to $^s$. Examples are:

- $yimi'sa^z$ he dreams ($=yimi's'-xa^z$, with suffix $-xa^z$ as in $lobo'xa^z$ above
- $ha-uhana'xs$ it stopped (raining) ($=^*hana'xz$, stem $hanatsl-++-x$)

§ 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. $yalnanada'z$ you will lose it, with $n$ preserved because it forms a consonant-cluster with $l$)
- $ha-gwân'la'm$ in the road (cf. $gwân$ road)
- $Didala'm$ Grant's Pass (probably =over $[di]-$ the rocks $[da'n]$)
- $xâ'la'm$t$'k$ my urine; $xala'xam't'c$ I urinate (cf. $xân$ urine)
- $ba-is'in-xîlik'wi'ên$ I blow my nose, with $l$ due to $-n$ of prefix $s'in-$ nose (cf. $xtn$ mucus)
- $s'înp'î'ls$ flat-nosed, alongside of $s'înp'î'n's$

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 $-p'î'n's$ with other prefixes not containing an $n$ would tend to restore an anomalous-sounding $s'înp'î'l's$ to $-p'î'n's$. 

§ 21
A suffixed -(a)n dissimilates to -(a)l because of a preceding m in the stem:

- sim'i'l dew (cf. such nouns as p'iyi'n deer)
- dak'-s·ö'ma'l on the mountain (s·ö'm mountain)
- dö'ma'lt'k' my testicles (dö'm testicles)

With these compare:

- dö'a-ts'ta'wana'n by the ocean (ts'ta'w deep water)

In xāa-gulma'nu 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 liagwaala'm, Didala'm, and xāa'la'mt'k' is at bottom phonetically as well as functionally identical with the suffix -an (-al), seen in xāa-gulma'nu (gulu'm oak) and dak'-s·ö'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 hagwaala'm is in that event as follows: An original *hagwaana'n in the road (stem gwā*+ nominal characteristic -an) becomes first *hagwaalan by the dissimilation of the first n because of the following n, then hagwaala'm by the dissimilation of this second n because of the preceding l. Similarly Didala'm and xāa'la'mt'k' would go back to *Didana'n and *xāa'na'nt'k' respectively; with the second form compare the reduplicated verb xala'xam- (=*xana'xan-) 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:

<table>
<thead>
<tr>
<th>-(a)m</th>
<th>-(a)n</th>
</tr>
</thead>
<tbody>
<tr>
<td>he'la'm board (cf. dū'he'liya sleeping on wooden platform)</td>
<td>daga'n turtle</td>
</tr>
<tr>
<td>gela'm river</td>
<td>wīgīn red lizard</td>
</tr>
<tr>
<td>ts'ela'm hail (cf. stem ts'el-rattle)</td>
<td>p'iyi'n deer (-n here as suffix shown by p'iyi'x fawn)</td>
</tr>
<tr>
<td>xila'm sick, ghost</td>
<td>yū't'u'n white duck (cf. yut'-u'yidi'n I eat it greedily)</td>
</tr>
<tr>
<td>ts'tū'lm wart</td>
<td>yū'xīgīn trout</td>
</tr>
<tr>
<td>habila'm empty</td>
<td>xda'n eel (cf. hā'-xda'xdaqwa'n I throw something slippery far away)</td>
</tr>
<tr>
<td>lap'ām frog</td>
<td>wē'p'ūn- eyebrows</td>
</tr>
</tbody>
</table>

1 No other example of final -lm is known, so that this form was probably misheard for ts'ta'lū'm (cf. gulu'm oak).

§ 21
It should not be concealed that a few words (such as ḥūlin Ocean, ściaga’m Lake, and yu kidnapping) 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’im- anus, the g, (k’) immediately following upon the l prevented the expected dissimilation of n to m; in le’k’awn- anus the dissimilation was perhaps thwarted by a counter-tendency to dissimilate the two labials (k’ 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- anus alongside of do’lk’im-.

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

yili'numa'n I keep asking for it (= original *yili'ima'n [l inserted as repetition of stem -l- in iterative formation from yili'ma'n I ask him])
le'ba'lxde'I am carrying (object not specified) (= original *le'-ba'lxde'); cf. identical suffix -al-x-, e. g., gayawa'lxde'I eat.

In ā'gu'a'nxde'I DRINK (stem āgw-), 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** when he went (cf. *ya'e* he went)
- **ginikdae** when he went to (cf. *ginie'k* he went to)
- **yawa'ida** when he spoke (cf. *yawa'e* he spoke)
- **loho'ida** when he died (cf. *loho'e* he died)

The connectives *hī* **IT IS SAID, and -s'ī** **BUT, AND are, in regard to this process, parallel to the -da of the preceding forms:

- **nagaihe** he said, it is said (cf. *naga'ez* he said)
- **nō's'ī** but, so (he went) next door (cf. *nō'ez* next door).
- **a'nīs'ī** but not (cf. *a'nī* not)
- **sī's'ī** but no matter how (often) (cf. *sī's'ī* even if)
- **dalwī's'īs'ī** but some (cf. *dalwī's'ī* sometimes; -wī's'ī is related to -wī' as is yā'ada to ya'ez)

§ 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:

- **bëmt'ā** his stick
- **se'lt'ā** his writing
- **wila'ut'ā** his arrow
- **ga'lt'ā** his bow
- **mo't'ā** 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 and -t'e, first person singular subject intransitive aorist (-de and -t'e to correspond in future):

- **p'ele'xadē** I go to fight; **p'elxā't'e** I shall go to war
- **yānt'e** I go; **yana't'e** I shall go
- **nagatt'e** I say; **na't'e** I shall say

§ 23
but:

\[ \text{wits'\text{-}ismade}^e \text{ I keep moving; future wits'\text{-}le'smade}^o \text{ (contrast wits'\text{-}iim't'e}^e \text{ I move and wisma't'e}^o \text{ I shall move) } \]

Other examples of interchange are:

\[ \text{sgö}^u't'sga't'i \text{ he cut them to pieces; sgö}^u't'sgidi^n \text{ I cut them to pieces} \]

\[ \text{ts'\text{-}imumt'a}^n \text{ I boil it, s\text{-}üm't'an \text{ I shall boil it (stem s\text{-}üm-t'a-); s\text{-}omoda}^e^n \text{ I boil it, s\text{-}omda'n \text{ I shall boil it (evidently related stem s\text{-}om-d-)}} \]

\[ \text{s'as\text{-}in\text{-}tęp'čk' we stand; e'bį'k' we are} \]

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\text{-}wa\text{-}lt'a young, not old; younger one)
- \( t'e^e, \) first person intransitive aorist (future, \( -t'e^e \))
- \( -t'e\text{-}k', \) first person singular possessive (as in ga\text{-}lt'e\text{-}k' my bow)

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

- \( -da, \) third person possessive with preceding preposition (corresponding not to first person \( -t'e\text{-}k', -dek', \) but to \( -dē \))
- \( -a\text{-}ld- \) and \( -a\text{-}md- \) 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:

\[ \text{dak'wili\text{-}tda on his house} \]
\[ \text{hát'gā\text{-}sdə in his country} \]
\[ \text{xā\text{-}sa\text{-}lda between his toes} \]
\[ \text{xā\text{-}ha\text{-}mda on his back} \]

This section continues with the same content.
hawa'nda under him
sgelewa'lda'n I shout to him
tstele'da'nda'n I paint it

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

yeve'ida when he returned
naga'ida when he said
baxa'mda when he came
hele'lda when he sang
xebe'nda when he did it

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

laa'lag'a as it became
s'as'iinh'a 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 hadedil-t'a everywheres. Here the -t'a is evidently the same as the -da of hawili'ida 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 I shall shine; alwe'k'alp'igam we shall shine; alwe'-k'alw'ka to shine
k'e'p'alt'e I shall be absent; k'e'p'alk'wa to be absent
wülü'ham't'e I have menstrual courses for the first time
xala'zamt'e I urinate
i'mhamk'am he was sent off (i is short, though close in quality; contrast dömhigam he was killed)
imi'hamk'wit' he sent himself

§ 23
ts'ümû't's'amt'a'n I always boil it (cf. s'omoda'n I boil it)
s'a's.ânt'e'e I shall stand; s'a's'AMP'IGAM we shall stand; s'a's'AN-
k'wa to stand
se'Ntant'e'e I whoop; se'nsant'e'e I shall whoop
de'wâ'gank'widê I spread (it) out for myself
dâsgâ'lît'nâ (grain) will lie scattered about

With -t'ä and -t'e above contrast the morphologically identical elements -dâa and -de of the following examples, in which the same accentual condition prevails but with a consonant other than 1, m, or n preceding the affected dental:

t'ge'its'idâa (round object) will lie (there)
s'uk'didaa (string) will lie curled up
dâk't'ek't'exe I smoke (but future -xa't'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-:

łat'ana'hi'n I hold it (aorist stem t'ana- + instrumental -i-), but future lat'ani'n (stem t'an-)
dak'-da-hala'hin I shall answer him (future stem hala- + instrumental -i-), but aorist dak'-da-hâ'li't'n (stem hâ'li-)

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

wâyänha'n I put him to sleep (cf. same form with change of accent wa-yâ'na'n)
dâ'agânhî'n I used to hear about it (cf. -agani't'n I hear it)
lîwîlhaut'e'I kept looking (cf. liwîla'ut'e I looked)
xâ-ît'gîlí't'gal'hi he broke it in two (cf. with identical -i- suffix xâ'salt'gvi'lt'gwili he broke [somebody's arm] by stepping)
ê'nhâm'k'am he was sent off (also in aorist stem imâham-)
wadômhi'k he killed him with it (stem dô'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 catch-word 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

§ 25
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. -ē, -ēs, -īs, -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-, bünde-, bünd-, 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 2, 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$^{*}$ (-de$^{*}$), -t'e$^{*}$ (-de$^{*}$), -n, -n, -k'a$^{*}$ (-ga$^{*}$), all of which are best rendered in English by "I." -t'e$^{*}$ is confined to the aorist of intransitive verbs; -t'e$^{*}$ is future intransitive; -n is aorist transitive; -n is future transitive; and -k'a$^{*}$ 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:

\[ d\ddot{o}m-, \ddot{d}u\ddot{a}m-, tlomom- (tlom\ddot{o}m-), tl\ddot{u}m\ddot{u}- \text{ kill} \]
\[ n\ddot{a}g-, ne\ddot{a}-, naga-, nege- \text{ say to} \]

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:

\[ \text{frang-} : \text{frēg-} \text{ break} \]
\[ \text{da-} : \text{ded-} \text{ give} \]

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, unhindered 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.

§ 25
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:

- gw'en-\textsuperscript{a}l-\textsuperscript{r}\textsuperscript{o}w\textsuperscript{o} he looked back (gw'en- in back; \textsuperscript{a}l- 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\textsuperscript{r}e he was, can be used as independent word)
- s\textsuperscript{i}n-\textsuperscript{i}lats!agi\textsuperscript{c}n I touched his nose (s\textsuperscript{i}n- nose; \textsuperscript{i} is with hand; lats!agi\textsuperscript{c}n I touched him, as independent word)
- gwent\textsuperscript{c}ge\textsuperscript{m} black neced (gw'en- nape, neck; t\textsuperscript{c}ge\textsuperscript{m} black)

The first example shows best the general character of loose prefixation. The prefixed elements gw'en-, \textsuperscript{a}l-, s\textsuperscript{i}n-, and \textsuperscript{i} have no separate existence as such, yet in themselves directly convey, except perhaps \textsuperscript{a}l-, 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

\textsuperscript{§§ 26–27}
such prefix that occurs with considerable frequency, wi-, first person singular possessive of nouns of relationship:

\[ wiha'm \text{ my father} \]
\[ hamit'z't' \text{ your father} \]

§ 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 \( \text{tomoxinik}' \text{ WE KILL ONE ANOTHER} \) contains, besides the aorist stem \( \text{tomö-} \) (formed from \( \text{dööm-} \)), the suffixed elements \(-x-\) (expressing general idea of relation between subject and object), \(-in-\) umlauted from \(-an-\) (element denoting reciprocal action \[\text{-x-in-} = \text{EACH OTHER, ONE ANOTHER}\]), and \(-ik'\) (first personal plural subject intransitive aorist). As an example of suffixation in the noun may be given \( \text{tiibagwa'n-t'k'} \text{ MY PANCREAS} \). This form contains, besides the stem \( \text{tiiba-} \), the suffixed elements \(-gw-\) (of no ascertainable concrete significance, but employed to form several body-part nouns; e. g., \( \text{tiiba'k'w} \) 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 \( \text{matslag-} \) (from \( \text{masg-} \) PUT) shows an intrusive or §§ 28–29
infixed -a- between the s (strengthened to tsl) 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:

- yonoins'n I always sing (aorist stem yonon-)
- tslaya'k' he used to shoot them (cf. tslaya'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 tslayaig- are similarly repetitions of the y- of yonon and -y- of tslayag-. 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:

<table>
<thead>
<tr>
<th>Verb stem</th>
<th>Aorist stem</th>
<th>Frequentative</th>
</tr>
</thead>
<tbody>
<tr>
<td>hemg- take out</td>
<td>heme-</td>
<td>heme-emg-</td>
</tr>
<tr>
<td>ts!a-im- hide</td>
<td>ts!a-yam-</td>
<td>ts!a-yam-im-</td>
</tr>
<tr>
<td>masg- put</td>
<td>mats!ag-</td>
<td>mats!ag-im-</td>
</tr>
<tr>
<td>yawi- talk</td>
<td>yawa-i-</td>
<td>yawa-i'y-</td>
</tr>
<tr>
<td>bazm- come</td>
<td>bazam-</td>
<td>bazam-im-</td>
</tr>
</tbody>
</table>

§ 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 helel- sing)
   - aorist tlomom- (from dōm- kill)

The reduplicated vowel is lengthened in certain forms, e.g., helel-, tlomōm-.

§ 30
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’i’umii’mt’a- (from s’i’umii mt’a- boil)
- usitative aorist *ti’ubi’i’lg- (from verb stem ti’ubi’lg-, aorist ti’ubi’lg-follow trail)
- usitative aorist ginii’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’i’ent’i’au- (from t’i’eu- play shinny)
- aorist b’ot’bad- (from b’ad- pull out one’s hair)
- aorist b’a- sal-xo(x)xag come to a stand (pl.); aorist sal-xog- stand (pl.)

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

- aorist yu’uyal- (cf. verb stem yu’yal- rub)
- aorist frequentative hogo’hag- keep running (from hag- run)
- aorist frequentative s’wilis’wal- tear to pieces; verb stem s’wil-s’wal- (from aorist s’wil’s’wal- tear; verb stem s’wil’-)

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 sgot’i-, aorist sgot’d- cut)

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

- gwidik’u’d- throw (base gwid-)

4. An irregular reduplication, consisting of a repetition of the vowel of the stem followed by *(5)a- + the last and first (or third) consonants of the stem in that order:

- frequentative aorist t’i’omoam’o-, as though instead of *t’i’omom-; cf. non-aorist d’umdam- (from aorist t’omom- kill)
- frequentative aorist k’i’eme’amg- (from k’i’eme-n- make; verb stem k’i’em-n-)
- frequentative aorist pl’uwuk’aug-, as though instead of *pl’uwup’aug- (from aorist pl’uwuk- 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’i’eme’amg- an original § 30
-k!am (i.e., -sgam) may be conceived of as undergoing partial metathesis to -samg.

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 we'go'si he brought it to me (from stem wāg-, as shown also by wāg-iwįn 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'xbi'n I told it to you (162.6)
   nege'si he said to me 186.22, but naga'sam he said to us (178.12)
   důmxina' I shall be slain (192.11), but dûmxina' you will be slain (178.15)
   gel-lůhuiqwa'si he avenges me, but -lohoiqwa'zn 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 -akʷ, -ikʷ:

   wase'gi'kʷ wherewith it is shot (from sāg-shoot)
   me'xakʷ having father (from ma'xa his father)
   wa'-i-dâzikʷdek' my gathered ones (= I have been gathering them) (from dôx-gather)
   dâ'n-xa-p'û'tîikʷ mixed with (from p'ôtl- mix) 178.5

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

   geyewa'ldedė I eat (136.15) (cf. gayawa'zn I eat it 30.11)
   le'ba'nx he carries 178.6 (stem lāb-)

§ 31
didäq't'bec'ek't'bag-ams (= -amtx) they had their hair tied on sides of head (from base t'bäq-g-) 142.17; cf. -t'bäq'ayamda'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:
   xānle'esap' belt (cf. xānšāda'n I put it about my waist)
   halō'asap' (= -xap') shirt (cf. halō'sak' 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'tzwagwadinin (= lūk!-xa-) I'll trap for him (stem lūk!-n-)
   ilū'pxagwank' she shall pound with (stone pestle) (cf. lōbo'p' she pounds them)
   k!edexade I was out picking (cf. k!adâ'n I pick them, k!adâi he picks them)
   ts!eye'mxade I hide things (cf. ts!ayama'zn I hide it)

6. In reflexive verbs ending in -gwi- or -k'wa- (-gwa-):
   k!et'gwi1p pick them for yourself! (stem k!ad_)
   alts!eye1cwit he washed himself with it (cf. alts!ayap' he washed his own face)
   iles!ek'wide I touch myself (cf. iles!agipt'n I touch him)
   k!edexaw'än I pick them for myself (aorist stem k!ada'i-)
   alnū't'kwaw he painted his own face (stem nō'gw-)

Yet many, perhaps most, reflexive verbs fail to show the palatal ablaut:
   p!agānk'wit' he bathed himself
   t'gwā'xañt'wide I shall tattoo myself (but lūt'gwant'gwide I trap deer for myself)
   xān-sgh'a't'wide I cut myself
   tyaxaga't'gwa'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 found 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 § 31
within the first six groups is to list them as miscellaneous cases.
Such are:

\[ gwel-le'ı̊sde' \] I shall be lame (cf. gwel-la'is k!emna'n I shall make him lame

\[ le'pesi' \] wing (if derived, as seems probable, from stem lāob- carry)

\[ t!emeya'nwia'ne \] people go along to see her married 178.1 (cf. tlamayana'ne 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:

\[ t'gāōlt'ga'l \] it bounced from her 140.8

\[ t'geōlt'galsi \] it bounced from me

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

\[ dak'da-hele'haloxade' \] I am accustomed to answer (stem -hāo-)

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-, -guwi-, -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.

§ 31
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:

\[
\text{gala-b-a}^{\ast} \text{n} \quad \text{I twist it; } \text{p!t}^{\ast}-\text{wa}-\text{gele-g-i}^{\ast} \text{n} \quad \text{I drill for fire with it (88.12), } \text{d}^{\ast} \text{al-gelegal-a}^{\ast} \text{mda}^{\ast} \text{n} \quad \text{I tie his hair up into top-knot (172.2)}
\]

\[
\text{d}^{\ast} \text{o-dala-g-a}^{\ast} \text{mda}^{\ast} \text{n} \quad \text{I pierce his ear (22.1); } \text{d}^{\ast} \text{a}-\text{dele-b-i}^{\ast} \text{n} \quad \text{I stick it through his ear}
\]

\[
\text{l} \text{a}^{\ast} \text{ excrement 122.2; } \text{le'-k'w-an-t'k' my anus}
\]

Variations between o (u) and ü are:

\[
\text{s'omoda}^{\ast} \text{n} \quad \text{I boil it (58.10); } \text{ts'üm} \text{ämt'a}^{\ast} \text{n} \quad \text{I boil it (170.17)}
\]

\[
\text{xuma' } \text{food 54.4; } \text{xümüb'de}^{\ast} \text{ I am sated (130.18)}
\]

An a—ü variation is seen in:

\[
\text{hau-ha}^{\ast} \text{a's it stopped (raining) 196.8; } \text{p} \text{la'i-hunû'w}^{\ast} \text{s he shrank 33.16}
\]

Variations between a and i are:

\[
\text{ywawu}^{\ast} \text{e}^{\ast} \text{ I talk (132.3); } \text{ywiwiya'ut' e}^{\ast} \text{ I keep talking, I converse (194.5); } \text{yiwin talking, (power of) speech 138.4}
\]

\[
\text{laba' n I shall carry it (124.5); } \text{ëbin news (what is carried about from mouth to mouth[?]) 194.9}
\]

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

\[
\text{lohotu}^{\ast} \text{e}^{\ast} \text{ I die 184.18; } \text{lehu}^{\ast} \text{e}^{\ast} \text{ I drift dead ashore (75.5)}
\]

\[
\text{xăa-huk'u'hak'na}^{\ast} \text{n I breathe; } \text{xăa-hege'hak'na}^{\ast} \text{n I breathe (79.2)}
\]

\[
\text{tlos'ô'a } \text{little 180.20; } \text{al-t'a'si't' little-eyed 94.3}
\]

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

\[
\text{pleyên} \text{t' } \text{e}^{\ast} \text{ I lie 71.5 (future plêt't'e}^{\ast} \text{[146.9]); } \text{gwên-pliyi'nk'wa}^{\ast} \text{n}
\]

\[
\text{I lie on pillow (future gwên-p'ik'wan)}
\]

\[
\text{t'ge'ya'lx } \text{it rolls; } \text{a'lt'gi'ya'lx } \text{tears rolled from (his) eyes 138.25}
\]

§ 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:

§ 32
1. An initial fortis in the aorist as opposed to an initial media in non-aorist forms:

   aorist klool- (stem gōl- dig)
   aorist tlebe- (stem dēb- arise)
   aorist tlayag- (stem dāg- find)

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

   aorist loptod- (stem lop'd- rain, snow, or hail)
   aorist latslag- (stem lasg- touch)

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

   aorist nūq- (stem nūq'- drown)
   aorist wi1g- (stem wik'- 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'ümūmt'a- boil
   hau-gwen-yut !uyad-i- swallow down greedily (like duck or hog)
   126.10; hau-gwen-yunuyan-i- dit.

The second example illustrates an interchange not of fortis and non-fortis (for n 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 instrumental, 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 t- 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 t- may be translated, according to the circumstances of the case, as

hand(s):

\[ t^-p!\tilde{v}-n\tilde{\omega}\text{"uk\text{"wa}n} \]

I warm my hands

with the hand:

\[ t^-\tilde{\omega}dini"n \]

I hunt for it with the hand (= I am feeling around for it)

in the hand:

\[ p'im^-t-h\tilde{\omega}gwa\tilde{\omega}a"n \]

I run with salmon in my hand

In the first of these three examples the t- as object precedes the incorporated instrumental p!\tilde{v} FIRE, so that the form means literally \( t \) WARM MY HANDS WITH FIRE. In the third form the t 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 \( t \)-incorporation given above as:

1. hand-fire-warm (=as-regards-myself)
2. hand-hunt-for-it
3. 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:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>bëm- sticks</td>
<td>wa-together</td>
<td>- hand</td>
<td>yaza-continuously</td>
<td>t(\text{mos}^\text{z})n I gather (them) (=I gather sticks together)</td>
</tr>
<tr>
<td></td>
<td>hee- away</td>
<td></td>
<td></td>
<td>w(\text{ag}^\text{i}^\text{a}^\text{ven}^\text{t})n she is bought (=she is brought with it) 176.17</td>
</tr>
<tr>
<td>gwaan-road</td>
<td>ha- in</td>
<td></td>
<td></td>
<td>th(\text{ik}^\text{a}^\text{mp}^\text{z})n I follow (it) (=I keep following the trail)</td>
</tr>
<tr>
<td>dan-rocks</td>
<td>ha- up</td>
<td>- hand</td>
<td></td>
<td>s(\text{jq}^\text{a}^\text{t}^\text{a}^\text{t})n I lifted (them) (=I lifted up the rocks)</td>
</tr>
<tr>
<td></td>
<td>han-across</td>
<td>weqa-knife</td>
<td></td>
<td>su(\text{il}^\text{w}^\text{or}^\text{t}^\text{i}^\text{h}^\text{s}) he tore him (=he tore him open with a knife) 73.3</td>
</tr>
<tr>
<td></td>
<td>dak- above</td>
<td>da-mouth</td>
<td>wala'sima-truly</td>
<td>h(\text{ka}^\text{ll}^\text{i}^\text{d}^\text{erm}^\text{a}^\text{r}^\text{t}) I answering him (=I did answer him)</td>
</tr>
<tr>
<td></td>
<td>xa- between, in two</td>
<td>- hand</td>
<td>mi'wa-probably</td>
<td>s(\text{g}^\text{a}^\text{t}^\text{d}^\text{em}^\text{t})n I cut him (=I'll probably cut him through) 31.13</td>
</tr>
</tbody>
</table>

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

\[ \text{ba-i-dee' di'di'nik!at} \] 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-, b\(\text{a}^\text{a}^\text{z}\)-, heeze-, and others) are rare or entirely lacking.

From what has been said it might seem that the connective and modal elements (like yaza, mi'wa, 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 \( \ddot{v} \)-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:

\[
\begin{align*}
x\ddot{a}^a-be^e-n\ddot{a}^e-w^e-k^e-wa^e-n & \text{ I warm my back in (really = with) the sun} \\
he^e-zi-le'me^e-k^i & \text{ he destroyed them with water} \\
he^e-p\ddot{a}^e-l\ddot{a}^e-k^i & \text{ he destroyed them with fire} \\
xu-dan-t\ddot{e}^e-l\ddot{a}^e-ga'\ddot{e}^e-thi & \text{ he broke it with a rock} \\
gwen-waya-sg\ddot{a}^e-w^i & \text{ he cut their necks off with his knife} \\
xa-dan-t\ddot{e}^e-l\ddot{a}^e-wm\ddot{a}^e-k^i & \text{ I broke it with a stick} \\
d\ddot{e}^a-he^e-yebbi^e-n & \text{ I sing for him, literally, I engage (?) his ears} \\
d\ddot{e}^a-t\ddot{e}^e-1\ddot{e}^e-s^l^i^i & \text{ I shake my ears with twisted shells} \\
d\ddot{e}^a-\ddot{a}-m\ddot{a}^e-gal-lewe^e-1\ddot{e}^e-\ddot{a}^e & \text{ I squash them with my penis} \\
d\ddot{e}^e-ye't-baxamagwa^e-k^i & \text{ we came crying, literally, we came having (our) mouths with tears} \\
yap\ddot{a}^e-d\ddot{a}^e-d\ddot{a}^e-t\ddot{a}^e-y\ddot{a}^e-k^i & \text{ he shot people with his shaman's spirit} \\
\end{align*}
\]

All these, except the last, begin with elements (\( xa^a-, he^e-, gwen-, da\ddot{a}^a-, di\ddot{e}^-, de \)) that cannot be isolated from the verb.

Instrumentals, whether nouns or body-part prefixes, can occur only in transitive verbs. The forms noxwa^e yana-wa-lobobii^e-n I POUND ACORNS WITH A PESTLE and noxwa^e-s-lobozaga^e-n I POUND WITH A PESTLE, as compared with lobo'zade^e I POUND, will serve to illustrate this. The first sentence reads, when literally translated, PESTLE (noxwa^e) I-ACORNS (yana^e) -WITH-IT-POUND. The logical instrument (noxwa^e) stands outside the verb-complex and is in apposition with its incorporated instrumental representative (wa^-), yana^e being the direct (incorporated) object. The form lobo'zade^e I POUND is made intransitive by the element -xa^- (hence the change in pronominal form from transitive \( -\ddot{e}^n \) to intransitive \( -de^- \)), and allows of no instrumental modification; a form like \( \ddot{e}-\ddot{e}^e-s \) I POUND IN 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 § 35
the intransitive in -za-. 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 sec-
ond form is not provided with a true instrumental (WITH A PESTLE),
but takes the logical instrument (noxwa') as a direct object, while
the i- 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 i- 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 (i-). Examples of
such double instrumentals are:

\[ gwalt' b\text{\'a}^{-}-\text{wa}-x\text{\'o}^{u}t'i \text{ wind he-up-hand-with-it-caused-them-to-fall, i.e., he caused them to fall by means of a wind (that he made go up) 168.2} \]

\[ ga ^{-}\text{wa}-\text{mol}^{o}m\text{a'hi} \text{ that she-hand-with-it-stirs-it-up, i.e., she stirs it up with that (incidentally, of course, she uses her hand too) 170.16} \]

\[ dan \text{ (object) } k\text{\'ama (instr.) } p\text{\'ai}^{-}\text{wa}-sg\text{\'a}^{k}sg\text{\'i}^{i}n \text{ rocks tongs down-hand-with-it-pick-up, i.e., I pick up the rocks with the tongs (and put them) down} \]

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:

\[ s'\text{in-}\text{wa-lats}\text{agi}^{i}n \text{ I touched his nose with my hand (s'in- nose) but, theoretically at least,} \]

\[ \tilde{i}-s'\text{in-}\text{wa-lats}\text{agi}^{i}n \text{ I touched his hand with my nose} \]

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

\[ \text{§ 35} \]
ha-t'gā°-gwidi'k'w he threw it into the open (literally, he-in-earth-threw-it); cf. ha-t'gān in the earth
ba-i-dak'-wili-tlā°di°n I ran out of the house (ba-i- out, adverbial prefix + dak'- on top of + wili house) 24.13; cf. dak'-wili on top of the house
ha-yan-t'ge'netsla°n I put it about my waist (literally, I-in [under?]rib-put-it-about); cf. ha-yawade 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-tgaagwidi'kcw is not directly comparable to the ha- of a form like:

ha-p'ī°-t's'lwlükli°n I set it on fire (p'ī° with fire) 73.9

Here ha-p'ī°- 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°n I doctor him as s'omloho'lxa's
doubtless contains the incorporated noun s'oñ mountain; but the implied allusion is not at all evident, except in so far as the protecting spirits of the s'omloho'lxa'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 t- HAND and s'ın- NOSE, classed with the rest

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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:

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>dak-</td>
<td>head</td>
<td>over, above</td>
<td>da’g-x- dek’ my head</td>
<td>dak-sëw-x over the house</td>
</tr>
<tr>
<td>[da-, de-</td>
<td>mouth, lips</td>
<td>in front</td>
<td>dëx- dek’</td>
<td></td>
</tr>
<tr>
<td>de-</td>
<td>ear</td>
<td>alongside</td>
<td>dëx-x- dek’</td>
<td></td>
</tr>
<tr>
<td>s’in-</td>
<td>nose</td>
<td>in back, behind</td>
<td>s’i-n-x-dek’</td>
<td></td>
</tr>
<tr>
<td>guen-</td>
<td>neck, nape</td>
<td></td>
<td>[bo’k dan-x-dek’</td>
<td>guen-c’gë-x on east side of the land</td>
</tr>
<tr>
<td>ë-</td>
<td>hand</td>
<td>between, in two</td>
<td>të-x-dek’</td>
<td></td>
</tr>
<tr>
<td>sëa-</td>
<td>back, waist</td>
<td>on top of</td>
<td>xà-ha-mt’k</td>
<td>xà-gwelë between my legs</td>
</tr>
<tr>
<td>dit-</td>
<td>back</td>
<td>facing</td>
<td>gët-x-dek’ [big-an-x-dek’]</td>
<td>dit-ëfë over my hand</td>
</tr>
<tr>
<td>gel-</td>
<td>breast</td>
<td>in rear</td>
<td>[deg-a’-t’k’]</td>
<td>gëlë facing, in front of me</td>
</tr>
<tr>
<td>dit-</td>
<td>anus</td>
<td></td>
<td></td>
<td>dit-gë-x on west side of the land</td>
</tr>
<tr>
<td>ha-</td>
<td>woman’s private parts</td>
<td>in</td>
<td>hà-s-x-dek’</td>
<td>ha-siga’ in the water</td>
</tr>
<tr>
<td>guel-</td>
<td>leg</td>
<td>under</td>
<td>gët-x-dek’</td>
<td>guel-siga’ under water</td>
</tr>
<tr>
<td>la-</td>
<td>belly</td>
<td></td>
<td>?la-x excrement</td>
<td></td>
</tr>
<tr>
<td>sal-</td>
<td>foot</td>
<td>down, below</td>
<td>sal-x-dek’</td>
<td></td>
</tr>
<tr>
<td>ai-</td>
<td>eye, face</td>
<td>to, at</td>
<td>[të-xe-xe- t’k’ my eye]</td>
<td></td>
</tr>
<tr>
<td>di’iul-</td>
<td>forehead (= above eye)</td>
<td></td>
<td>[li’u-ugw- at-dek’ my face]</td>
<td></td>
</tr>
<tr>
<td>‘guenka-u-</td>
<td>nape (= neck under)</td>
<td></td>
<td>di’u’a-lë at his forehead</td>
<td></td>
</tr>
</tbody>
</table>

The last two are evidently compounded; the first of di’- ABOVE and al- EYE, FACE, the second of guen-NECK and probably adverbial prefix ha-u- UNDER. The noun ha-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

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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.

(a1) da-, (de-) MOUTH, IN MOUTH, WITH MOUTH, LIPS, TEETH, TONGUE:

[da\textsuperscript{e}ogo\textit{ih}\textit{i} he gave him to eat (lit., he mouth-gave him) (186.25)
\{de\textsuperscript{e}ug\textit{a}s\textit{i} he gave me to eat 186.2

dat\textsubscript{a}aya\textsuperscript{e} he went to get something to eat 75.9

dada\textsuperscript{e}k\textsuperscript{e}\textit{ak} sharpen your teeth! 126.18; 128.23
dats\textsuperscript{a}ta\textsuperscript{a}s\textit{ili}\textsuperscript{e}n I chew it

e\textsuperscript{a}al\textsuperscript{a}te\textsuperscript{a}l\textsuperscript{a}i\textsuperscript{en} I lick it

dalats\textsuperscript{a}ta\textsuperscript{a}g\textsuperscript{e}z\textsuperscript{e}n I taste it (literally, I mouth-touch it)

dalap\textsuperscript{a}p\textsuperscript{e}p\textsuperscript{e}\textit{awi}\textsuperscript{e}n I blow at it (194.1)
dadama\textsuperscript{a}\textsuperscript{e}x\textsuperscript{e} he was out of wind 26.5
dasm\textsuperscript{a},\textsuperscript{a}n\textsuperscript{a}yama\textsuperscript{a}\textsuperscript{e}z\textsuperscript{e}n I smile

hada\textsuperscript{a}yowa\textsubscript{a}\textsuperscript{a}da\textsuperscript{a} (creek) going into (river) (literally, in-mouth-being)

[dal\textsuperscript{a}p\textsuperscript{e} he lied (literally, he mouth-played) 110.23; 156.14

del\textsuperscript{a}n\textsuperscript{a}nh\textsuperscript{a}x\textsuperscript{e} he lied to me

dayu\textsuperscript{a},\textsuperscript{a}u\textsuperscript{a}s he suddenly stopped (singing, talking) (literally, he mouth-started, as in fright) 138.23

[da\textsuperscript{e}k\textsuperscript{e}dah\textsuperscript{a}\textsuperscript{a}li\textsuperscript{e}z\textsuperscript{e}n I answer him (180.18)

[da\textsuperscript{e}k\textsuperscript{e}d\textsuperscript{a},\textsuperscript{a}h\textsuperscript{a}\textsuperscript{a}l\textsuperscript{a} he answers me

(a2):

he\textsuperscript{e}d\textsuperscript{a},\textsuperscript{a}le\textsuperscript{e}\textsuperscript{ek}\textsuperscript{e}li\textsuperscript{e}z\textsuperscript{e}n I finished (story, talking) 50.4

del\textsuperscript{a}m\textsuperscript{a}m\textsuperscript{a}sg\textsuperscript{e}d\textsuperscript{e} I tell truth (184.3)
dexeben\textsuperscript{a}t\textsuperscript{e} you said it (literally, you mouth-did it) 14.10; 15.6

aldets\textsuperscript{a}l\textsuperscript{a}l\textsuperscript{a}l\textsuperscript{a}k\textsuperscript{e}z\textsuperscript{e}n I suck it

dodets\textsuperscript{a}l\textsuperscript{a}l\textsuperscript{a}l\textsuperscript{a}l\textsuperscript{a}k\textsuperscript{e}z\textsuperscript{e}n I kiss her (first de- as object, her lips; second de- as instrument, with my lips)

dehemem\textsuperscript{a}z\textsuperscript{e}n I taste it (cf. \textit{\textipa}\textsuperscript{a}-hemem- wrestle)

\textit{ba}-ideh\textsuperscript{a}n\textsuperscript{a}n\textsuperscript{a}t\textsuperscript{e} you are through eating (literally, you are out-mouth-done) (136.16)

del\textsuperscript{a},\textsuperscript{a}nia\textsuperscript{a},\textsuperscript{a}d\textsuperscript{a}zn I fetch it for him to eat (130.9)

deh\textsuperscript{a},\textsuperscript{a}yek\textsuperscript{e}li\textsuperscript{e}z\textsuperscript{e}n I left food over

\textit{da}- can not stand before \textit{i}- \textit{HAND}, because of the palatal timbre of the latter. Examples of de\textsuperscript{e}z-:

doe\textsuperscript{a}z\textsuperscript{e}d\textsuperscript{a},\textsuperscript{a}m\textsuperscript{a},\textsuperscript{a}l\textsuperscript{a}k\textsuperscript{e}k\textsuperscript{e}k\textsuperscript{e} it will get choked

\textsuperscript{a}de\textsuperscript{a},\textsuperscript{a}l\textsuperscript{a}z\textsuperscript{e}l\textsuperscript{a}t\textsuperscript{a}s\textsuperscript{a}l\textsuperscript{a}g\textsuperscript{e}z\textsuperscript{e}n I touched his mouth (de- = da- as object; \textit{i}- as instrument. Contrast above da-lats\textsuperscript{a}s\textsuperscript{a}l\textsuperscript{a}g\textsuperscript{e}z\textsuperscript{e}n I tasted it, with da- as instrument)

Similarly other palatal non-radical elements cause a change of \textit{da-} to de-:

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

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

de’kalalak’talin (house) was scratched on door 154.1, 2, 3
de’sse’k’ he opened door of house (cf. alse’k’ he bowed to him) 63.12

de’p’owo’t’k’ he bent it

bä’de’seyewea’k’w he started traveling again (literally, he up-ahead-went-again-with it) 22.4; 24.9; 25.6
dewiliwa’lsi she is fighting me 27.3

de’gui’d’k’w he stuck (threw) it into (fire) 27.8
dek’owi’k’auk’wa’n I brandish it before my face (172.12)
gasa’lhi de’hits’la’ga’is fast stepper (literally, quickly ahead-stepper)

ba-ide’di’nixia’ they marched by in regular order (literally, they out-ahead-stretched) 144.14
de’wii’d’gi’n I spread it out (120.1)
t’gä’a de’hi k’iya’k’is if the world goes on (literally, world ahead-goes-if) 146.4
damats’la’k’ he put it point foremost (into their eyes) 27.8

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

dat’lagä’n I build a fire (96.17)
[al]datch’au’l’we’k’ he caught fire 98.3
[al]datch’au’l’were’xi I caught fire
degüli’k’alax it glows (142.1); 188.15
aldat’guja’t’isi (fire) blisters my face (25.11)
de’iti’a’makl’i’n I put out the fire
dat’ama’tx the fire goes out
dat’abaga’n I finish it (176.6)
dasgayana’n I lie down

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

3. dä-

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

dä’stlagä’p’ he washed his ear

dä’stis’lama’k’ he squeezed his ears
dä’datlagi’t’n I touched his ear, cheek
dä’agani’t’n I heard it (55.3; 108.16)
dä’dä’gi’t’n I am able to hear it (literally, I can ear-find it) (100.12)

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xā'andant'giilt'ga'liθi he broke it with rock 24.4
xā's belt'be'k't'bagams it is all tied together 27.13
xā'salt'gwe'll'gωllı he broke it by stepping on it 31.4, 5
xā'se'mk'I't'k'I'diθn I broke it with stick

In xahegehak'na'n I BREATHE (79.2) and xahuk'u'hak'na'n I BREATHE, the xa- may refer to the heaving motion up from the waist.

8. dɪ'-
(a) BACK:
The local uses of xā- and dɪ'- (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.

di't'slayāp' he washed himself in back of body
di'hāx his back is burning
di't'bōk'la'lɔdead I have warts on my back 102.20
di'di'xaw'wa'nk' she will wear it (i.e., skirt) 55.9

(b) ABOVE, ON TOP:
di'he'liya sleeping on board platform 13.2
didāst'bā'tgam't'gwiđe I tie my hair on sides of my head (see under dā'-) (140.11; 142.17)
di'xalgelega'mda'n I tie his hair up into top-knot (172.2)
di'uyutstlamanda'n I fool him (aorist uyuts!- laugh)
di'hinxo'gi'n I scare him
di'mās (earth) is lit up (78.1)
di'hili'xawa'n I am glad 22.2

di'- 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:
di'p'il'i'p'ilın I squash (yellow-jackets) (74.3); contrast
gel-bēm-p'il'i'p'ilın I whip him on his breast (literally, I-breast-stick-whip-him) (cf. 76.1, 2, 3)
di't'ilq'si't'n I mash them
ba-idi'gwi'b't'wap' it popped all around 27.14

di't'gumutgimicnt I squeezed and cracked many insects (such as fleas)

In many cases, as in some of the forms given above, the primary signification of dɪ'- is greatly obscured. It is not at all certain but that we are at times (as in di'uyutstlamada'n) dealing really with the phonetically similar prefix di'- REAR.

§ 36
9. gel-

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

gelståyäp' he washed his breast

gelståats!agii't'en I touched his breast

bōa-geltyo lie down with belly up! (lit., up-belly-be!) 140.4
gelguluywaa't'en I desire, want it 32.5, 6, 7

gelhewe'hau he thought 44.11; 124.3; 142.20

gelhooñua't'en I avenge him (apparently = I breast-die-with him) (146.8; 148.3)
geltyayak' they thought of it (see under s'ín- and dās') 152.10
gelyalāzdldi't'en I forgot him (lit., I breast-lose him) (77.10)
gelsts!ayomxamk' she hid (certain facts) from us 158.7
gelulu'k'de' I am getting lazy
gelleye'c'x he is stingy (literally, he breast-leaves-remaining = keeps surplus to himself) 196.8

(b) FACING:

geltyana'hi she pushed him (literally, she held him [away] facing her) (25.10)
geltawayān he slept with her (literally, he caused her to sleep facing him) 26.4; (108.3; 190.2)
wai'tqwan geltyowo' they faced each other (literally, to each other they breast-were) 26.15
geltyiyi'k' he turned around so as to face him 170.2

10. di-

(a) ANUS:

distålayāp' he washed his anus

ba-đi'sga'tst'gii'tgii't'en I stick out my anus (164.19; 166.1)
dišhāx his anus is burning 94.13

dišhagāt'e' I feel ticklish in my anus (as though expecting to be kicked) (cf. under dak'-') 166.1

dixō'w (food) is spilling out from his anus, (acorns) spill out from hopper 94.2, 4, 5

(b) IN REAR, BEHIND:

disalayono'hin I shall catch up with him in running

be' dišk'iyi'k' afternoon came (lit., sun went in rear) (124.15)
dasō'l dišhivinid' e' I ran close behind

As happens more or less frequently with all body-part prefixes, the primary meaning, at least in English translation, of di-
seems lost sight of at times:

abaiđe'yo沃o'÷da' coming into house to fight (abai-into house; yowo'÷da' being) 24.14

1 Though perhaps better she held him with her breast, taking gel- as instrument.

3045°—Bull. 40, pt 2—12—6 § 36
In a number of verbs di- 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‘got!ōha bēm he was always cutting down trees 108.8
di‘k!olola‘n (tree) was dug under 48.5
di‘sqūyū‘k!lin (tree) was made to fall by being dug under 48.7, 8, 12

p!a-idIsgimi‘sgam they set (house posts) down into ground

11. ha-

(a) woman’s private parts:

hats!ayāp’ she washed her private parts
ha‘lats!aqi‘t̠e‘n he touched her private parts
ha‘wesga‘hak’w she spread apart her legs 26.4

(b) in:

(dänxda‘gwa) hats!ayāk’ he washed inside (of his ear)
(dēxda) halō‘k’i he stuck it into (his mouth)
(s‘inxda) hadele‘p’i he stuck it up into (his nose)
halōkōn he caught them in trap (literally, he caused them to die in) (100.8)
(gwān) hat!ulugwa‘5n I follow in (trail) (96.8,9)
halō‘k’ she put on (her dress), they put on (their skins, garments) 160.6
ha‘lulō‘hal they skinned them 160.5
haya-utge‘nets!a‘5n 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:

gwelts!ayāp’ he washed his legs
gwelle‘ye‘sde‘ I am lame
gwelō‘w‘k‘w put on (your leggings)!
gwelē‘wi‘t̠e‘n I beat him in running (lit., I-leg-left-him) (184.14)
gwelsalt!eyesa‘5n I have no fat in my legs and feet 102.22

(b) under, away from view:

gwelmatsta‘k’ they put (food) away (sc., under platforms) 124.22; (132.8)
gwelge‘b’yowō‘da‘5 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).

§ 36
13. la-

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

latslayäp' he washed himself in front of body

(b) BURST, RIP OPEN:

lat'bä'ax it burst 24.17
laçit'bä'aklit'ba'z you (pl.) shall rip them open (like game after roasting) 118.5
lasalt'bä'agä'n I burst it with my feet (140.22)
laçwayat'bä'agä'n I rip it open with knife (waya knife, as incorporated instrument)

14. sal-

(a) FOOT, WITH FOOT:

sallats!agi'ë'n I stepped on it (instrument sal-: I foot-touched it) (196.18)
salïlats!agi'ë'n I touched his foot (object sal-: instrument ï-)
saltslayäp' he washed his feet
salzugi they are standing 63.2
hës'al't'gün kick him off! (24.17)
alsalt'bä'ok' he kicked him 86.16,17,18
gelbam salgwi't'gwat' kick it way up!
salyuwoë's he suddenly lifted up his foot (as when frightened)
(cf. under da- and s'in-)
salp!ti'nö'k'wa'ë'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'ë'n I am desirous of something

where his TRYING can not occupy an initial position

al-di-yok!oya'ët' did you know him?

Here alyok!oya'ët' in itself hardly differs in content from yok!oya'ët' 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.

\[ w\ddot{a}^\prime da \, l\ddot{a}^\prime gw\ddot{a}^\prime n \] to-him I-thrust-it, where *w\ddot{a}^\prime da* definitely expresses a local pronominal idea to, at him.

Compare:

\[ al\ddot{a}^\prime gw\ddot{e}^\prime n \] 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\ddot{s}ilats\ddot{a}^\prime gi\ddot{e}^\prime 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\ddot{a}^\prime 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\ddot{s}\ddot{o}^\prime m\ddot{a}^\prime l* at, to the mountain; *ga\ddot{s}a^\prime l* to that, as postposition equivalent to to, for, from.

(a) face, eye:

\[ al\ddot{a}^\prime d\ddot{a}^\prime d\ddot{a}^\prime n \] I look around for him (cf. \(\ddot{a}^\prime d\ddot{a}^\prime d\ddot{a}^\prime n\) I hunt for him) (92.27)
\[ al\ddot{x}^\prime t\ddot{a}^\prime g\ddot{e}^\prime n \] I see, look at him (-\(\ddot{a}^\prime t\ddot{a}^\prime g\)- never occurs alone) 186.7; 188.11.
\[ alg\ddot{a}^\prime a^\prime n \] he turned his face
\[ al\ddot{y}^\prime e^\prime be\ddot{b}^\prime e^\prime n \] I showed it to him (77.8)
\[ alyow\ddot{a}^\prime t\ddot{e}^\prime \] I looked (cf. *yow\ddot{a}^\prime t\ddot{e}^\prime* I was) (64.3)
\[ al\ddot{s}i\ddot{a}^\prime y\ddot{a}^\prime g\ddot{e}^\prime n \] I washed his face (64.5)
\[ m\ddot{a}^\prime n\ddot{x} \] al\ddot{m}u\ddot{k}^\prime wa he painted his (own) face

§ 36
altlaya'k' he found, discovered it (literally, he eye-found it; cf. under s'íin-, dā'n-, and gel-) 47.10; 92.27; 194.13
alsgalāwilwān I looked at them (moving head slightly to side)
altbōkλalxāde I have pimples on my face (cf. 102.20)
alt'waplayt'wap'na'n I blink with my eyes 102.20
alwe'kλala'ān I shine
xā'altnahā they watched it (literally, they-between-eye-held it; xā'-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:
alpo'ap'auhi he blew on it 15.1
alhūyixdeI go hunting (42.1; 58.14; 70.2; 126.21)
algesegasalt'e It was washing
alheme'k' they met him 24.11
alxalpe'xlap' he mashed it up into dough-like mass 94.11
al'tlsal'land' In I touch, reach it
alsc'gi'ān I bowed to him (172.10)

16. dil'al- FOREHEAD:
dil'altslayāp' he washed his forehead
dil'alsegalama's he tied his hair up into top-knot 172.2
dil'alka'tap'gwa he put (dust) on his forehead 136.28

17. gwenha-u- NAPE:
gwenha'-utslayaga'n I shoot off nape of neck
gwenha-ut'be'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- 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- rend in two (cut, split, break)
dī'- crushing activity (mash, squeeze)
dī'- fell, erect (long object)
ha- dress, undress

§ 36
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, əa- 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 denoting 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:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Translation</th>
<th>Local phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>han-</td>
<td>across, through</td>
<td>hanwasgan across the creek</td>
</tr>
<tr>
<td>ha-u-</td>
<td>under, down</td>
<td>ha-wu under me</td>
</tr>
<tr>
<td>he'-</td>
<td>away, off</td>
<td>he' beyond the mountain</td>
</tr>
<tr>
<td>dal-</td>
<td>away into brush, among, between</td>
<td>dan gada' among rocks</td>
</tr>
<tr>
<td>hə'ya-</td>
<td>on both sides</td>
<td>hə'yə on both sides of, around me</td>
</tr>
<tr>
<td>həsat-</td>
<td>yonder, far off</td>
<td>həsat yonder, far off</td>
</tr>
<tr>
<td>me-</td>
<td>hither</td>
<td>me hither</td>
</tr>
<tr>
<td>we-</td>
<td>around</td>
<td>we around</td>
</tr>
<tr>
<td>hauwi-</td>
<td>in front, still</td>
<td>hauwi in front, still</td>
</tr>
<tr>
<td>wa-</td>
<td>together</td>
<td>wa together</td>
</tr>
<tr>
<td>bas-</td>
<td>up</td>
<td>bas up</td>
</tr>
<tr>
<td>ba-i-</td>
<td>out, out of house</td>
<td>ba-i out, out of house</td>
</tr>
<tr>
<td>pəu-i-</td>
<td>down</td>
<td>pəu-i down</td>
</tr>
<tr>
<td>abs-i-</td>
<td>in house, into house</td>
<td>abs-i in house, into house</td>
</tr>
<tr>
<td>bəm-</td>
<td>up into air</td>
<td>bəm up into air</td>
</tr>
<tr>
<td>zəm-</td>
<td>in river</td>
<td>zəm in river</td>
</tr>
</tbody>
</table>

§ 37
Of these, the first five belong to the first group, the last nine to the second. The position of ha- and me- is somewhat doubtful; but the fairly evident etymological connection of the former with hā年由a and the correlative relation in form and meaning between me- and he-., 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- and he-., though they are never used alone, stand in close etymological relation to a number of local adverbs (such as eme 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- in such forms as me-yèa come back! and ge in, e. g., ge yowo' 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., plaï-hau- under 2 below, also abai-bā-. 62.1.

1. han- through, across:
   han'yada't'e I swim across
   hangwidi'k'w he threw it across 120.22
   han'wa'alv't'k' he looked through it
   hanyewed'is he went back across 178.16
   gwān-hanggo'sde I lie stretched across the trail (literally, I-road-across-cut) (148.8)

2. ha-u- under, down:
   ha-ugwenyut'u'yidi'n I swallow it down greedily, making grunting noise (126.10)
   ha-usāk'w he paddled him down river (bā- up river)
   ha-uyowo't'e I sweat (literally, I-under-am)
   ei pla- tha'-ut'gū'px canoe upset 60.8
   ha-hanata'is it stopped (raining) 196.8

3. he- off, away:
   he'leme'k' he killed them off 14.13; 110.21; 144.6
   he'sgō'da't'n I cut it off (44.4); 72.10; (92.14,16)
   he'gwidi'k'w he threw it away
   he'tak'wa he went away from him (23.12; 146.18)
   he'salt'gunt'gini'n I kick him off (24.17)
hees'hāl'ulp'í'n I beat off bark (with stick)
hees'k'ap'á'k'í'bi'í'n I chipped them off (92.3)
hees'wā'ga'í'n I buy it (literally, I carry it off) (176.17)
hees't'guvú'ít's is it is blistered

4. dal- INTO BRUSH, AMONG:
dalyewé'í'e he ran off into brush 14.6; 110.10
dalgwidi'k'w he threw it into brush
dalp'ó'udi'í'n I mix it with it (178.5)
dalzabiti'ú'e he jumped between them 106.20

5. hā'ya- ON BOTH SIDES:
hā'ya'gini'k' they passed each other
hā'ya'wati'emexia'í'e they assemble coming from both sides 144.23

6. hā'í'e FAR OFF:
hā'í'e yewé'í'e they returned going far off 146.22; (47.4; 188.1)
hā'xā'xā'dagwa'í'n I threw something slippery way off
This prefix is evidently identical with the demonstrative stem hā'í'e
seen, e. g., in hā'í'ga THAT ONE YONDER.

7. me'- HITHER:
me'gini'k' he came here 146.24 (ge gini'k' he went there 77.7)
ha'nme'gini'k' they come from across (note two local prefixes;
hangini'k' they go across)
me'yē'a come back! (yē'a return!) (23.11,12,13,14; 96.5); 59.5
me'hivili'ú'e he came running this way
Not infrequently me'- conveys the fuller idea of come to ______,
as in:
me'bēp'zip' come (pl.) and chop for me! 90.16

8. wi- AROUND:
wī'í't'ge'ye'xi they are surrounding me (48.13; 190.14)
wī't'ge'ye'k'i they put it round about 176.14

9. hawi- IN FRONT, STILL:
hawi'yant'e I go in front
hawiyanote's front dancer
hawibaxa't'm still they come, they keep coming 146.1
bōu hawidegū'lk'alxdā'a after a while it will blaze up (bōu = now)

10. wa- TOGETHER:
wak'oyōxinik' we go together.
wak'í't's'lo'mek' squeeze (your legs) together! (26.5)
bā'awalilik'w he traveled up along (river) (literally, he went up
having it together with him) 21.14
wayānink'w he followed him (literally, he went having him together
with him) 23.11

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watlemëzia they are assembling together (110.3); 144.23
wa'tilloxoxi he gathered them together 112.6
watlilik'ni she gave them one each 130.4
wähimiti he talked to him 59.16; 63.10
da'gaxdeb' wa'alt'gey'tgiyin I tied it about my head (literally, my-head I-together-to-surround-it)
pās wakle'wa'lxgwax snow is whirling around

Sometimes wa- seems to indicate simultaneity of activity, as in:
walāla'ahi 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- up (55.16; 59.10; 60.11; 63.6,12):
   bādini'x (clouds) were spread out in long strips (literally, they
   stretched up) 13.3
   bātlebet'ė I get up 186.14; (196.1)
   bāwaava'ayk'w he flies up with it
   bāyänk'w he picked it up 15.9; 24.3; 59.15
   kliyɛx bāwōk' smoke comes out (literally, up-arrives) 29.3
   (dānza) ba'algwii's he turned up (his ear)
   (dak'wili) bāgini'k' he went up (on top of house) 30.6
   bās's'ė's stand up!
   bāyewe' he got better (literally, he-up-returned) (15.2)
   bāhawa'k' she dipped up (water)

12. ba-i- OUT, OUT OF HOUSE, OUT OF WATER TO LAND, FROM
   PLAIN TO MOUNTAIN:
   ba-iyeweie they went out again
   ba-ixo'do'xat' she took off (her garment) 13.4
   ba-isili'xgwax he lands with (boat) 13.5
   ba-isāk'w he came to land
   ba-la'lyowo he looked outside
   ba-ihimima'en 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-ibilawa't' you jumped out of house 24.15; (46.6)
   (hadedē) ba-iyeweijini'en I took it out (of my mouth) (literally,
   I-out-caused-it-to-return)
   ba-idehenen't' you are through eating (literally, you-out-mouth-
   are-finished) (132.14)
   ba-iti'ixi'xi he pulled (guts) out 92.17
   (dak's'ōma'l) ba-iwōk' he got up (on the mountain) 124.4; (60.9)

§ 37
In certain idiomatic turns the primary signification of ba-i- is as good as lost:

(he'k-)ba-imats'i'a'k' he began to sing (lit., he-song-out-put) 102.17
ba-ik'iya'k' he comes 92.1, 2; 156.24; 168.13

13. pla-i- down:
pla-i'ana'hin I held him down
pla-i-gwid'i'k'w he threw it down
pla-i-waya'ez he went to lie down, to sleep (lit., he down-slept) 25.9
pla-ilohoIt'e I fell down (literally, I down-died)
pla-iyewet'e (arrow) fell down back 22.5; 48.14
pla-i'a'lyowo' he looked down 26.14
pla-iyowo'ez they sat down (literally, they down-were) 56.2
pla-isgaya'pade' 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 emo' here [= demonstrative adverb e- here + me']); its correlative relation to ba-i- makes it seem advisable to give examples of its occurrence here:
abaiginit'k' he went inside 25.8; 27.7,13; 64.3
abaikiwili'uz he ran inside 16.12
aba-iwök' they went into house 29.6; (44.7); 160.19
aba-iyowot'ez I stay at home
abaitsl'ak'tsia'k' he stepped into house 31.3

15. bam- up into air
This prefix occurs often with preposed elements gel- or dët- as gelbam- or dëtbam-, which would seem to mean respectively with belly side up and with back side up, or in front of and directly over one:
bamgwidi'k'w he threw it up
gelbamgwid'i'k'w he threw it up
dëtbamgwidi'k'w he threw it up
gelbamsak'w he shot it up 22.5
gelbam'a'lyowo' he looked up
gelbam's'ult he was sitting up (in tree) 48.7

16. xam- in river, into water, from mountain to plain:
xamolts'ayāp' he washed himself in river
xamgwid'i'k'w he threw it into river (33.6); 108.5
xamhiwili'uz he ran to river 29.13; 94.16
xa'mhilāp'ıvak' they became in river (= were drowned) 166.16
xam'a'lyowo' he looked down from top of mountain 124.4 (contrast plaia'lyowo' he looked down from ground 26.14)

§ 37
§ 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:

\[
g_a \text{ ve} \text{de} \; yap!a-wa-d\text{öm}higa}^z \text{ that not I-people-with-shall-kill (}= I \text{ shall not kill people therewith)}
\]

In other words, it would seem likely that such a form as \(g_a \text{ al}^\text{wa-}wats!ayagi'^e\text{n} \text{ I wash him with that} \) is related to an \( \text{al}^\text{wa-}wats!ayagi'^e\text{n} \text{ I wash him with it as, e. g., } x_i \text{ al}^\text{wa-}wats!ayagi'^e\text{n} \text{ I wash him with water, to the form } \text{al}x_i\text{t!ayagi'^e\text{n}} \text{ I water-wash him, i. e., the } wa-\text{ in } \text{al}^\text{wa-}wats!ayagi'^e\text{n} \text{ is to be regarded as an incorporated } g_a \text{ that, it (such forms as } *\text{al}g!asyagi'^e\text{n} \text{ have never been found to occur). It will be noticed that the verb-forms with incorporated } wa- \text{ are normally characterized by a suffixed } -i- \text{ or } -hi-; \text{ as soon, however, as the verb loses its instrumental "face," this } -i- \text{ is replaced by the normal } -a-. \text{ Thus:}
\]

\[
\begin{align*}
\text{wilau wats!ayagi'^e\text{n} arrow I-shoot}^1 \text{-him-with-it (with incorporated } wa-, \text{ wilau } \text{arrow being outside the verb-structure and in apposition with } wa-) \\
\end{align*}
\]

but:

\[
\begin{align*}
ts!ayaga'^e\text{n wilau wa' I-shoot-him arrow with (in which also } wa-\text{ stands outside the verb-complex, acting as an instrumental postposition to wilau')}
\end{align*}
\]

Examples of instrumental \(wa-\) are:

\[
\begin{align*}
(\text{salxde}k') \text{sal}^\text{w!}lats!ayagi'^e\text{n} \text{ I touched him with my foot (literally, my-foot I-foot-with-it-touched-him)} \\
(x!i) \text{wata}^\text{ywa'}nki \text{ I drink (water) with it} \\
(yap!a) \text{wata}^\text{omomi}'e\text{n} \text{ I kill (people) with it (but } yap!a \text{ t!omoma}'e\text{n I kill people)} \\
\text{al}wats!ewiek'wide^e \text{ I washed myself with it} \\
g_a \text{ his } d\text{öm} = \text{m!a } \text{getwagut!vo}^\text{e}\text{n I try to kill him with that (literally, that trying killing-him I-with-desire-it)} \\
\text{se}l\text{-wats!elelamba}^e\text{n I write with it} \\
(\text{v!xde}k') \text{wagaya}^\text{e-}iwi'^e\text{n I used to eat with (my hands)}
\end{align*}
\]

1 Aorist \(ts!ayag\)-shoot and aorist \(ts!ayag\)-wash are only apparently identical, being respectively formed from stems \(\text{sadag-} \) and \(\text{tsalag-} \).
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 bêm wa'iwat!oxo'xi'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; i-, 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 bêm stick. If preferred, i- may be interpreted, though less probably, as a local element (-iwa- = 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:

<table>
<thead>
<tr>
<th>Aorist stem</th>
<th>Verb-stem</th>
<th>Probable base</th>
</tr>
</thead>
<tbody>
<tr>
<td>tôtomom-</td>
<td>dôom-</td>
<td>dôom- kill</td>
</tr>
<tr>
<td>naga-</td>
<td>nôag-</td>
<td>nôag-(nag-) say to</td>
</tr>
<tr>
<td>bêd-</td>
<td>bêla-</td>
<td>bêla- answer</td>
</tr>
<tr>
<td>òud-</td>
<td>ôdo-</td>
<td>ôdo- hunt for</td>
</tr>
<tr>
<td>lôhôi-</td>
<td>lôho-</td>
<td>lôho- die</td>
</tr>
<tr>
<td>yuluyal-</td>
<td>yulyal-</td>
<td>yul- rub</td>
</tr>
</tbody>
</table>

§ 39
By far the larger number of verbal bases are monosyllabic. Where the simplest radical element that can be analyzed out remains disyllabic (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 disyllabic character of the verb-stem is due to a secondary phonetic reason (thus dawi- is for dawy-, cf. davy-; 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 dōm- had followed the analogy of the phonetically parallel naag-, we should have in the aorist not tломом-, but domo-; similarly, the phonetic similarity of odo- and loho- would lead us to expect an aorist stem lоh-, 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 b/wi- corresponds to a verb-stem boho-, yewei- corresponds to yew- RETURN; nagai-, to na- SAY, DO; and k'lemëi-, to k'lemë- 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.

<table>
<thead>
<tr>
<th>Verb base</th>
<th>Meaning</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>hem-</td>
<td>1. mock</td>
<td>hemeham-</td>
</tr>
<tr>
<td></td>
<td>2. wrestle</td>
<td>hemem-</td>
</tr>
<tr>
<td>hegw-</td>
<td>1. work</td>
<td>hegwehagw-</td>
</tr>
<tr>
<td></td>
<td>2. relate</td>
<td>hegwe- hagw-</td>
</tr>
<tr>
<td>hem-</td>
<td>1. be finished</td>
<td>hemen-</td>
</tr>
<tr>
<td></td>
<td>2. wait for</td>
<td>hene-</td>
</tr>
<tr>
<td></td>
<td>1. find</td>
<td>т'яюг-</td>
</tr>
<tr>
<td>dawg-</td>
<td>2. build fire</td>
<td>т'ягdt-</td>
</tr>
</tbody>
</table>

$\S$ 39
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 object third person object aorist transitive. For example:

\[ tlomōm \] he killed him
\[ naga' \] he said to him
\[ -hāl \] he answered him
\[ ō'ut' \] he hunted for him

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

\[ dō'm \] 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.

<table>
<thead>
<tr>
<th>Sing. verb-stem</th>
<th>Pl. verb-stem</th>
<th>Sing. form</th>
<th>Pl. form</th>
</tr>
</thead>
<tbody>
<tr>
<td>s'as'—stand</td>
<td>sal-xog-</td>
<td>s'as'ial he stands</td>
<td>sal-xog- they stand</td>
</tr>
<tr>
<td>s'ut'al—sit</td>
<td>at-zali'</td>
<td>s'ut'llir' (— s'ut'al-) I am seated</td>
<td>at-zali'yapa'k' we are seated</td>
</tr>
</tbody>
</table>

§ 39
It is interesting to observe that, while stand and sit are intransitive in the singular, the plural stems sal-xogv- and al-xali- 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-ipt'ik' we stand and s'wiltp'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:

\[ \begin{align*}
  & moyügw-a'n-t'e I am spoiled, and moyügw-an-a't'n I spoil him \\
  & lügi-n-t'e I rest, and lügi-n-a't'n I rest him \\
  & k!üwüte they ran away in flight, and k!üwü he sowed, threw them about
\end{align*} \]

Certain forms are alike for both transitive and intransitive; e.g.,

second person plural subject: \[ k!üwüwa't'p' \].

§ 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; c1, c2, and so on, other consonants; v'' denotes pseudo-diphthong; other letters are to be literally interpreted.

\[ \text{§ 40} \]
### Table of Types of Stem-Formation

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Formula verb-stem</th>
<th>Formula aorist stem</th>
<th>Example verb-stem</th>
<th>Example aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>v+C</td>
<td>v+C</td>
<td>ob- dig up</td>
<td>oHb-</td>
</tr>
<tr>
<td>2</td>
<td>v+(c)</td>
<td>v+c+v</td>
<td>yo- be</td>
<td>yowo-</td>
</tr>
<tr>
<td>3</td>
<td>v+C+c1</td>
<td>v+c1+v+c1</td>
<td>ëlts- laugh</td>
<td>ëltšit-</td>
</tr>
<tr>
<td>4a</td>
<td>v+C+c1</td>
<td>v+C+c1+v+c1</td>
<td>ëltš- put</td>
<td>matsag-</td>
</tr>
<tr>
<td>4b</td>
<td>v+C+c1</td>
<td>v+c1+v+c1</td>
<td>ëltš- cry</td>
<td>t'agaš-</td>
</tr>
<tr>
<td>5</td>
<td>v+C+c1</td>
<td>v+C+c1+v+c1</td>
<td>loko- die</td>
<td>lohoi-</td>
</tr>
<tr>
<td>6</td>
<td>v+C+c1</td>
<td>v+C+c1+v+c1</td>
<td>yana- go</td>
<td>yán-</td>
</tr>
<tr>
<td>7a</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>p'sil- mix</td>
<td>p'silš-</td>
</tr>
<tr>
<td>7b</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>deq- arise</td>
<td>deqš-</td>
</tr>
<tr>
<td>8</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>dâw]- wear</td>
<td>t'agašš-</td>
</tr>
<tr>
<td>9</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>gôš- dig</td>
<td>t'agašš-</td>
</tr>
<tr>
<td>10a</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>dâw]- find</td>
<td>ktokol-</td>
</tr>
<tr>
<td>10b</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>lôw]- play</td>
<td>t'agašš-</td>
</tr>
<tr>
<td>11</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>sama- fight</td>
<td>sana-</td>
</tr>
<tr>
<td>12</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>pau]- talk</td>
<td>yavošš-</td>
</tr>
<tr>
<td>12a</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>t'iw]- play shiny</td>
<td>t'iw]-</td>
</tr>
<tr>
<td>13a</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>senš]- whoop</td>
<td>senš]-</td>
</tr>
<tr>
<td>13b</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>díuš]- stuff with</td>
<td>díuš]-</td>
</tr>
<tr>
<td>13c</td>
<td>c+C+v+c1</td>
<td>c+C+v+c1+v+c1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14</td>
<td>v+C</td>
<td>v+C+v+c1+v+c1</td>
<td>zeb- do</td>
<td>zeb-</td>
</tr>
<tr>
<td>(15a)</td>
<td>-</td>
<td>-</td>
<td>saren- stand</td>
<td>saranš-</td>
</tr>
<tr>
<td>(15b)</td>
<td>-</td>
<td>-</td>
<td>diñk]- lei spread out</td>
<td>diñkš]-</td>
</tr>
<tr>
<td>(16)</td>
<td>c+C+c1+i</td>
<td>c+C+c1+i</td>
<td>khâš]- be lean</td>
<td>khâšš-</td>
</tr>
</tbody>
</table>

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-sgalaml(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-sgalal- 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:

§ 40
verb-stem -xik!- see; aorist Type 6 -xig- and Type 2 -xik!-xa-
see (without object)

verb-stem yeu- return; aorist intransitive Type 4 yewe-, causative Type 2 yewe-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'layam- hide; verb-stem ts'lay[a]m- and ts'la-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 plaham- be ripe, done; verb stem plah[a]n-

Under such circumstances ambiguous forms may result; e. g., waagani'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 dāagān (agana'n) he heard it; but imperative dāag[a']n
hear it!

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

aorist plehen- a'nxī he causes me to be done; but future pleh[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 $v+c$. 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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>woga'et</td>
<td>wō'k' he arrived (196.20)</td>
</tr>
<tr>
<td>oba'n</td>
<td>ō'ba'ẽn I dug it up (48.7)</td>
</tr>
<tr>
<td>yi'le</td>
<td>yi'la'ẽn I copulated with her 26.3</td>
</tr>
<tr>
<td>úgwa'n</td>
<td>ú'gwa'ẽn I drank it 186.3</td>
</tr>
<tr>
<td>hogwana'n</td>
<td>hō'gwana'ẽn I made him run (79.2)</td>
</tr>
<tr>
<td>hin'ẽ-x-ni'wa'ẽs coward 76.5; (138.2)</td>
<td>hin'ẽ-x-ñi'wa'ẽn I was afraid (17.7)</td>
</tr>
<tr>
<td>wit'ẽ</td>
<td>wit'ẽ I traveled (90.1)</td>
</tr>
<tr>
<td>tũla'mxadeẽ</td>
<td>tũla'mxadeẽ I went fishing</td>
</tr>
<tr>
<td>yimi'ẽ-hin</td>
<td>yimi'ẽ-hina'n I lend it to him (98.14)</td>
</tr>
<tr>
<td>hũli'ntẽ</td>
<td>hũli'ntẽ I was tired out (102.1)</td>
</tr>
<tr>
<td>hagaItẽ</td>
<td>hagaItẽ I had a cold thrill 166.1</td>
</tr>
<tr>
<td>lohō'na'ẽn I shall cause him to die (100.8)</td>
<td></td>
</tr>
<tr>
<td>al-ge'yandeẽ</td>
<td>al-ge'yandeẽ I shall turn my face</td>
</tr>
<tr>
<td>al-geyana'ẽn I turned my face</td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ō'ẽ-p'</td>
<td>ō'ẽ-p' he dug it up 124.5, 12</td>
</tr>
<tr>
<td>ak-w</td>
<td>ak-w he drank it 162.20</td>
</tr>
</tbody>
</table>

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 numerous among 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'elem-rattle (aorist ts'eleml-), the -m- is shown to be a suffix, though of no determinable signification, because of its absence in the corresponding frequentative ts'lelet'sal-. 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:tim-, as contrasted with verb-stem t'gisim- GET GREEN with aorist of Type 2 t'gisim- (t'gisim- should therefore be analyzed as base t'gis- + suffix -m-). This criterion enables us to pick out an otherwise unsuspected suffix in verbs like tlap'g- FINISH, aorist tlabag- (not Type 3, *tlap'lag-), 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'te5 I SHALL MOVE (base wism-), but t'gisam'te5 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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-t!ani'n I shall hold him (28.11)</td>
<td>t-t!ana'hi5n I held him 73.16</td>
</tr>
<tr>
<td>wa-klo'ya'n I shall go with him</td>
<td>wa-kloyo5n I went with him (33.15)</td>
</tr>
<tr>
<td>o'sbi'n (= ? ok-s-) I shall give it to you (178.15)</td>
<td>ogu'sbi'n I gave it to you 23.3</td>
</tr>
<tr>
<td>oina'n I shall give it</td>
<td>oyona'tn I gave it (180.20)</td>
</tr>
<tr>
<td>yålzaldan I shall lose it (188.18)</td>
<td>yalålzalda'n I lost it (77.10)</td>
</tr>
<tr>
<td>yo't'e5 I shall be (33.10)</td>
<td>yowōt'e5 I was (42.1)</td>
</tr>
<tr>
<td>nāk'ink' he will say to him (94.16)</td>
<td>naga5 he said to him 180.7</td>
</tr>
<tr>
<td>da-sgātpa'de5 I shall lie down</td>
<td>da-sgaya'pa'de5 I am lying down</td>
</tr>
<tr>
<td>t'ū'ga'et' it will get hot</td>
<td>t'ūwū'et'k' it got hot 94.15</td>
</tr>
<tr>
<td>s'omda'n I shall cook it</td>
<td>s'omoda'tn I cooked it (58.10)</td>
</tr>
</tbody>
</table>

Examples illustrating the intrusive -a- are:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>bila'ut'e5 I shall jump (160.17)</td>
<td>bili'at'e5 I jumped1 (45.14)</td>
</tr>
<tr>
<td>milada'n I shall love her</td>
<td>mili'da'an I love her</td>
</tr>
<tr>
<td>kliya'k'de5 I shall come 196.1</td>
<td>-kliyi'k'de5 I came (156.24)</td>
</tr>
<tr>
<td>gina'k'de5 I shall go somewhere 14.3</td>
<td>gini'k'de5 I went somewhere 21.10</td>
</tr>
<tr>
<td>dūwa'k'de5 I shall be good</td>
<td>dūwúk'de5 I was good (146.7)</td>
</tr>
</tbody>
</table>

1 Perhaps best considered as belonging to Type 3 (verb-stem bila-).
Verb-stem

xuma’k’de⁶ I shall be satiated
wiya’k’de⁶ I shall groan
xuda’mt’e⁶ I shall whistle
ts’lela’mt’e⁶ I shall rattle

Aorist stem

xumû’k’de⁶ I was satiated
wiyi’k’de⁶ I groaned
xudumû’t’e⁶ I whistled
ts’lelemû’l’te⁶ I rattled
ts’lusumû’t’el’te⁶ I made whistling noise

lii ga’ ntee I shall rest
ya1a’ntee I shall be lost (cf. 14.3)

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’e) of some of the verbs listed has no -a-: bilwada’⁵, gingada’⁵, dûgada’⁵, wi’gada’⁵, yalna’t’. Similarly the simple stem xud- WHISTLE appears in xutma’lès 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 tlan-, og-, s’om-d-, gin-g-, yal-n-) and those with long verb-stem vowel (k!ə’y-, yal-x-ald-, lii-[a]n-, t’ûg-g-, mil-[a]d-). The first and second stem vowels of the aorist of verbs of the first class are regularly both short (t’ana-, og-, s’om-d-, gin-g-, yal-n-); the aorists of the second class seem generally to have a short first but long second vowel (k’oyô’-, yalû-a-x-ald, lii’-n-, t’ûwû’-g-, milû-d-). The verb nûg- (aorist naga-) SAY TO and perhaps a few others (sgâi-p-x-, aorist sgaya-p-x-; al-tsâi-g- WASH aorist al-tsâya-g-; but al-tsâi-p’- WASH ONESELF, aorist al-tsâya’g-a-p’) do not follow this rule. Of the verb yo- (aorist yowo-) forms of both accent classes are found (yôt’e⁶ as well as yo’t’e⁶, yowo’t’e⁶ as well as yowô’t’e⁶), 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

§ 40
verb clearly belongs to Type 3 because of constant -a- following -xsn-. Had it belonged to Type 2 it would have assumed the form *baxa'mtee § 40

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Such forms as wa-k'loyo'xn are only apparently opposed to the rule (see § 65).

**TYPE 3.** Verb-stem \( v + e + e_1; \) aorist \( v + e! + v + c_1. \) 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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>-lasgi'n I shall touch it</td>
<td>t-lats!agi'xn I touched it</td>
</tr>
<tr>
<td>masga'n I shall put it (102,15)</td>
<td>mats!aga'xn I put it 74.13</td>
</tr>
<tr>
<td>wismada'ze you will move</td>
<td>wits.'ima't' you moved 148.16</td>
</tr>
<tr>
<td>yo'k'yan I shall know it (162.6)</td>
<td>yokloya'xn I knew it 50.5</td>
</tr>
<tr>
<td>lop'dia'uet' it will rain</td>
<td>lop!odia'xn it rained 152.11</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>t!amyana'xn I shall go to get her married (150.5,19)</td>
<td>t!amayana'xn I went to get her married (148.5)</td>
</tr>
<tr>
<td>ts!a-uyat'es fast runner 138.2</td>
<td>ts!lawait'e I ran fast</td>
</tr>
<tr>
<td>d'b-ú'its.'amt' fool him!</td>
<td>d'uyú'ts.'lamba'xn I fooled him</td>
</tr>
<tr>
<td>baxma't'e (( = \text{baxm-} )) I shall come</td>
<td>baxmb't'e I came (114.16)</td>
</tr>
<tr>
<td>ga-ıwa'n I shall eat it 128.18</td>
<td>gayawad'xn I ate it 30.11</td>
</tr>
<tr>
<td>moigwana'n I shall spoil it</td>
<td>moigwana'dxn I spoiled it (31.12)</td>
</tr>
<tr>
<td>yo'xan snan I shall scare him (186.10)</td>
<td>yowo'xn I scared him (186,10)</td>
</tr>
<tr>
<td>malgini'n I shall tell him</td>
<td>malagini'xn I told him (30.15)</td>
</tr>
<tr>
<td>ba-ı-xiligwi'n I shall snatch it out</td>
<td>ba-ı-xiligwi'xn I snatched it out (33.4)</td>
</tr>
</tbody>
</table>

1 This verb clearly belongs to Type 3 because of constant -a- following -zm-. Had it belonged to Type 2 it would have assumed the form *baxma'me*.
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'eleaga'z'n I WENT TO WAR AGAINST THEM is derived from p'ele-g- 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-, t!almy-, malg-, p'elg-, hants!-) and such as have a long vowel (g!itlts!, g!ilb-, kl!alas), 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 (g!ilb-, kl!alas-); only rarely is the second vowel of the aorist stem long (leyes!, uyit!its!'-). The accent of stressed stem vowels follows the same rules as in the case of verbs of Type 3 (dowatt'e', han-g!i!l!ip' with rising or raised pitch; but hana'z's, he'te-x-dar HE WILL BE LEFT OVER, uyit!its!d!e' I LAUGH, with falling accent because of the glottal catch).
Type 4. Verb-stem \( v^* + c (+v) \); 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:

\[ t'agä"na't'\varepsilon n \text{ I make him cry} \]

while in certain other transitive derivatives it is preserved:

\[ t'agayagwa't'\varepsilon n \text{ I cry having it} \]

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 4a and 4b 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 4a are:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ye'ü't'\varepsilon</td>
<td>ye'üvet'\varepsilon</td>
</tr>
<tr>
<td>p!ak'de't'</td>
<td>p!ak'gefähr'\varepsilon</td>
</tr>
<tr>
<td>t'ak'de't'</td>
<td>t'agäh'\varepsilon</td>
</tr>
<tr>
<td>na't'\varepsilon (irregular)</td>
<td>nagaät'\varepsilon</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>loho'y' \varepsilon</td>
<td>loho'y' \varepsilon</td>
</tr>
<tr>
<td>lehe'y' \varepsilon</td>
<td>lehe'y' \varepsilon</td>
</tr>
</tbody>
</table>

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). \(na\)-, 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 \( v^* + c \). This type of verb is morphologically very difficult to understand, as it is in effect the very opposite of Type 2. Morphologically \( yana\- \go: \tan\- \text{hold} = yä^n-\) :

\[ § 40 \]
t!ana-; but phonetically the proportion would gain in symmetry by reversing the positions of its first and third terms. Examples are:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>wagawi'n I shall bring it to him (45.6)</td>
<td>wą*giwi'čen I brought it to him (176.17)</td>
</tr>
<tr>
<td>wege'sink' he will bring it to me</td>
<td>we'ga'či he brought it to me (194.11)</td>
</tr>
<tr>
<td>yana't'e I shall go 14.3</td>
<td>yąnt'ci I went 14.7</td>
</tr>
<tr>
<td>haxa't'e I shall burn (92.29)</td>
<td>haxde' I burnt (98.1,4)</td>
</tr>
<tr>
<td>dak'-da-hala'hin I shall answer him</td>
<td>dak'-da-hašli'čen I answered him (122.4; 146.14; 180.18)</td>
</tr>
<tr>
<td>laba' carry it! (70.5); 192.8</td>
<td>láp' he carried it 160.9</td>
</tr>
<tr>
<td>sagwa' paddle it! 112.3,9</td>
<td>sa*gwa'čen I paddled it (14.6)</td>
</tr>
<tr>
<td>wede'k'ink' he will take it from him (16.10,11; 17.10,11)</td>
<td>wet'gi he took it from him 16.13; (76.1)</td>
</tr>
<tr>
<td>lebe'n I shall pick it up and eat it</td>
<td>lebo'čen I picked and ate it 94.5,12</td>
</tr>
<tr>
<td>sebe'n I shall roast it (44.6)</td>
<td>sebo'čen I roasted it (118,10)</td>
</tr>
<tr>
<td>he'čwixi'xink' he will go away from me</td>
<td>heč'-ińsi he went away from me (184.14,15)</td>
</tr>
<tr>
<td>hawax-xiwi't'e I shall rot (194.8)</td>
<td>hawax-xińte I am rotting (100.1)</td>
</tr>
<tr>
<td>odo'n I shall hunt for it (116.7,11)</td>
<td>o'đa'čen I hunted for it (13.9)</td>
</tr>
<tr>
<td>woo'nk' he will go to get it (162.8)</td>
<td>wöl't he went to get it 160.4</td>
</tr>
<tr>
<td>p'uyumda'n I shall smoke them out</td>
<td>p'uyamda'n I smoked them out (76.11)</td>
</tr>
<tr>
<td>yomo'n I shall catch up with him (46.7; 136.12,13)</td>
<td>yō'miya'čen I caught up with him (final -i' of aorist stem unexplained) (140.14)</td>
</tr>
</tbody>
</table>

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'). The long stem vowel of the aorist, when stressed, takes the rising accent. This latter rule there is one curious exception. The verb odo- HUNT FOR always has the falling accent on the o'v of the aorist (o'v't' he hunted for it 13.9; 88.8, never *o'v'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 (*o'v'd-, odo'- of Type 5 and o'v'd-, *o'v't- of Type 6)?

**Type 6. Verb-stem v(c) + t; aorist 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.
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-bu'giβn the g (k!) seems to be a verbifying suffix (cf. de-bu't 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 dak'-da-hal HE ANSWERED HIM; Type 2 naga' HE SAID TO HIM; but with catch Type 4 naga'e 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., alxi'klin I SHALL SEE HIM; alxi'k' 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'iklin
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’tdlan and xō’‘uda’n is, then, the same as that which obtains between yowo’e he was and yowǒ‘uda’e 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 sgo’‘utl- 45.10 (aorist sgo’‘udl- 72.10) cut are derived the derivative aorists sgotlo’sgodě x I cut frequently (62.1), sgotlōl-ha’n I keep cutting it (108.8), sglūlī’xade’e I cut (without object) (92.2). Parallel forms are derived from most other verbs of this type, such as xā’k’-, lō’‘k’-, sgo’‘p’l- cut, sgo’‘etl- 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’ekl- nod to, open door 138.18).

TYPE 7. Verb-stem c+v+c1; aorist c! +v +c1+v(+i). The second sub-group (7b) of this sparsely represented type of verbs is apparently related to the first (7a) as are verbs of Type 4a 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 7b, 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 7b. This vocalic length is perhaps responsible for the loss of the -i- in certain forms; e. g., di-tlūgūn I wore it, but di-tlūgūn I wore it. (See § 65.)

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

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>bā‘-dēp’dē’ I shall arise 196.3</td>
<td>bā‘-t’lebe’l’e I arose 186.14</td>
</tr>
<tr>
<td>wa-dīlkhin I shall distribute them</td>
<td>wa-t’līlkh’ni’n I have distributed them (130.4)</td>
</tr>
<tr>
<td>dwe’p’dwa’padā they will fly without lighting</td>
<td>t’weple’ t’wapz they flew without lighting</td>
</tr>
</tbody>
</table>

The last example follows also Types 6 and 13a.

§ 40
To Type 7b belong:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>da-dâk' build a fire!</td>
<td>da-t!agâl he built a fire 96.17</td>
</tr>
<tr>
<td>dì-dü-gwa'nd'k' she will wear it 55.9</td>
<td>dì-t!ügâl she wore it 96.16</td>
</tr>
<tr>
<td>t'gwâ-xa'n't'gwidee I shall tattoo myself</td>
<td>t'gwaxâik't'gwidee I tattooed myself</td>
</tr>
<tr>
<td>k!â-da'nd'k' he will pick them</td>
<td>k!adâl he picked them</td>
</tr>
</tbody>
</table>

(116.17)

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 7b, but form their non-aorist forms according to other models, as the aorists klemêi- make (only with third personal object; otherwise klem(ε)-n-, corresponding verb-stem klem-n- of Type 2) and yehêi- hear singing far away (verb-stem yehê=). In both aorist and non-aorist forms the stem vowel or long i-diphthong, when stressed, bears the rising or raised accent (k!âl' PICK THEM! bü- tlebet' HE AROSE).

Type 8. Verb-stem c+v+c₁; aorist c+l+v+c₁+v+c₁. 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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>gâit'eI shall grow (77.9)</td>
<td>klayaït'eI grew (77.9)</td>
</tr>
<tr>
<td>go-da'nI shall bury him (118.3)</td>
<td>k!ododa'žnI buried him (96.16)</td>
</tr>
<tr>
<td>go-la'nI shall dig it</td>
<td>k!olâdâ'ÌnI dug it 73.10,14</td>
</tr>
<tr>
<td>gu-wa'nI shall plant it (94.10)</td>
<td>k!üwüwa'žnI planted it (132.10)</td>
</tr>
<tr>
<td>dö-ma'nI shall kill him (178.14)</td>
<td>t!omôma'žnI killed him 71.7</td>
</tr>
<tr>
<td>wa-ê-i-döxinI shall gather them</td>
<td>wa-ê-t-loxo'xi'nI gathered them (112.6,11; 192.4)</td>
</tr>
<tr>
<td>ba-i-döxinI shall pull (guts) out</td>
<td>ba-i-t-lixi'xi'nI pulled (guts) out (92.17)</td>
</tr>
<tr>
<td>dâ-la'nI shall crack it</td>
<td>t!alala'žnI cracked it</td>
</tr>
<tr>
<td>de-gwa'ldanI shall watch for him (116.20; 126.20)</td>
<td>t!egwegwa'ldâ'nI watched for him (118.2; 158.12)</td>
</tr>
<tr>
<td>wa-ê-i-de'mi'nI shall gather them (for war)</td>
<td>wa-ê-i-t'leme'm he gathered them (for war) 110.3</td>
</tr>
<tr>
<td>bâ-ba'nI shall chop it (90.16)</td>
<td>plababâ'žnI chopped it (90.11)</td>
</tr>
<tr>
<td>dì-bü-gwa'nI shall start (war, basket) (110.21; 170.10)</td>
<td>dì-p!ügâgwa'žnI started it</td>
</tr>
<tr>
<td>s-â-da'nI shall mash it</td>
<td>ts!ladâda'žnI mashed it (130.23)</td>
</tr>
</tbody>
</table>

§ 40
Of Type 9, examples are:

Verb-stem  | Aorist stem
---|---
s'ūuml't'an I shall boil it (170.16) | ts'ūuml't'a'n I boiled it (170.17)
\( de^2\-i-s'imbin\) I shall close door (90.4) | \( de^2\-i-ts'ibibi'en\) I closed door (90.5)
ye\(gwa'n\) I shall bite him (88.2) | ye\(wegwa't'en\) I bit him (88.3)
lō\(ba'n\) I shall pound them (16.6) | lobob'a'n I pounded them (16.9)
l't'\(ma'\-t'\) tree will fall (108.12) | lim'i'm tree fell (108.11)
hēlt'e'\(e\) I shall sing (106.15) | helelt'e'\(e\) 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:

\( il'mo'\(i\)\) he killed him 16.15; but \( il'mo'\(a\-\)\) he killed you(cf. 178.12)

Before certain intransitivizing derivative suffixes, particularly \(-x^2\) (see §56) and \(-xa^2\) (see §53), the same loss of the repeated consonant of the aorist stem is to be noted. Thus:

\( pl'a'b'\) he chopped it 90.11; but \( p'lebe'\-\) he chopped 55.6
wa\(z\-i-t'leme\) he gathered them together; but \( d'ak'\-t'leme\) they are gathered together 43.9; 136.11

With \(-x^2\) the preceding vowel is lengthened, with \(-xa^2\) 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 \( c^2+v^2+c_1 \); aorist \( cl^2+v+y+v+c_1 \). This type is not at all a common one. It differs from Type 7a 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 \(-a^2\) and added \(-a^2\).

Of Type 9, examples are:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
</table>
| dā\(a\)ga'n I shall find it (110.15) | tlayagad'z'en I found it (27.12)
| sā\(a\)ga'n I shall shoot him | tslayaga'd'en I shot him (45.13)
d\(a\)-dā\(a\)l'\(e\)\(e\) (-dā\(a\)y-) I shall go to get something to eat (33.9) | da-tlaya'\(a\)l'\(e\)\(e\) I went to get something to eat\(^1\) (75.9)
d\(a\)-dā\(a\)l'd\(i\)'n (= dā\(a\)ld'-, see §11) I shall go to get it to eat (33.9) | da-tlayald'i'en (= tlayail'd'-, see §11) I went to get it to eat (76.9)

\(^1\)This verb might be considered as entirely parallel to \( gl\)ay\(a\)\- (aorist k'\(a\)gai\-) of Type 8. The derivative in \(-i\), however, seems to prove it to be of Type 9; the \(-a^2\) forms, if belonging to Type 8, would probably appear as \(*d\-d\-a\-ya'\)\(d\)'\(i\)-, \(*d\-t\-layaya'\)\(d\)-\(i\)-\(n\).
TYPE 10. Verb-stem \(c + v + (c) (+c_1)\); aorist \(c + v + \left[ c \left( + c_1 \right) \right] (v)\).

This type embraces the few verbs that form their aorist stem by merely repeating the initial consonant of the verb-stem. Of 10a, that is, those that introduce the initial consonant immediately after the stem-vowel, there have been found:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>lōx to play</td>
<td>lōlt’ē I played</td>
</tr>
<tr>
<td>lāp’dē I shall become</td>
<td>lālt’ē I became (also of Type 15a)</td>
</tr>
<tr>
<td>lāwā’n I shall twine basket</td>
<td>lālwēn I twined basket (61.7)</td>
</tr>
<tr>
<td>he’-l-le’(l)k’in I shall let him go</td>
<td>he’-l-le’lk’i’n I let him go (182.20)</td>
</tr>
</tbody>
</table>

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!-). Perhaps -lelk!- is misheard for -lek!-.

The only certain example of 10b is:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>sana’ spear it!</td>
<td>sāns he speared it (110.20)</td>
</tr>
</tbody>
</table>

The verb-stem here is of Type 5. The simple base (san-) is best seen in the fully reduplicated sānsa’n-sinia‘ THEY ARE FIGHTING EACH OTHER 23.14. An aorist of Type 10b is probably also:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>ha-u-gwen-yut’i’hi (= *yut’y-[h]i)</td>
<td>he gobbled it down (cf. frequentative yut’uyad-)</td>
</tr>
</tbody>
</table>

See also aorist yōt’mī’- under Type 5. Stems of this type are more frequent among nouns than verbs, e.g., bel’p’ 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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>loma’lt’ē (a is inorganic) I shall choke</td>
<td>lomōlt’ē I choked</td>
</tr>
<tr>
<td>xalxa’mīt’ē I shall urinate (cf. xāl-urine)</td>
<td>xala’axamīt’ē I urinated</td>
</tr>
</tbody>
</table>

---

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 13a, zalazam- and zalazam- being respectively dissimilated from *zənən- and *zənən- (see § 21).
Verb-stem  Aorist stem

yawī't'e⁵⁰ I shall talk (cf. base yiw- talk) (126.2)  yawait'e⁵⁰ I talked (30.4; 126.2)
da-bo'klo'p'na⁵⁰n I made bubbles (base bōk'-) 102.22
bā⁵-al-mo'l'man I shall turn things over (base mo'l'-)  

bā⁵-al-mo'lo'ma⁵⁰n I turned things over

dāⁿ-ye'hi't⁰ I shall go to where singing is heard  

dāⁿ-yehet he went where there was singing (see Type 7b) 106.10

glewela'mda⁵⁰n I suck it out of it (186.18)
lā'mala⁵⁰n 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-)
klī'ya[ə]g- go, come (aorist kliyig-)
gel-gul[ə]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-boklo'ba'k'na⁵⁰n I make bubbles  yiwīya'ut'e⁵⁰ I talk (148.9)
mo'lo'ma⁵⁰n I turn things over (170.16)

A form like mo'lo'mat' you turned things over may go back to a *mo'lo'mat' (Type 13b), itself a reduced form of the fully reduplicating mo'lo'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 13a, 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-

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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’pde I SMALL FIGHT) employ a stem (sane-) of Type 5. Most aorist forms, including the reciprocal aorist, use the stem saass.sass- of Type 12 (seenla’nsi HE FIGHTS ME; sdansa’sssissik WE FIGHT EACH OTHER). The stem ãens- of Type 10b is probably limited to such transitive forms of the aorist as have a third person object (saI’nsa’1n I FIGHT HI2I sSsss lIE FOUGHT HIM).

Parallel form, perhaps with iterative significance, to leela’usi, § 7.

Perhaps it is best considered a verb of mixed type (13a in aorist, 12 in non-aorist).

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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>lèuxink’ he will call me by name</td>
<td>lewila’usi he calls me by name (59.7)</td>
</tr>
<tr>
<td>itut’e I shall look (142.18)</td>
<td>liwila’ut’e I look (59.14)</td>
</tr>
</tbody>
</table>

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 (lāwa‘uhii HE CALLED HIM) or raised accent (hehe'-sal-t'gū'nē'ga’n).
Type 13. Verb-stem $c+v+c_i+c+a+c_i$; aorist $c+v+c_i+v+c+a+c_i$. 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 13a, which covers practically the whole number of type-cases, examples will be given under the characteristic stem-vowels.

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) $a$:</td>
<td></td>
</tr>
<tr>
<td>$\ddot{i}$-gaxgixi'5n I shall scratch him</td>
<td>$\ddot{i}$-gaxgixi'5n I scratched him</td>
</tr>
<tr>
<td>da-ts'la'5ts'lilin I shall chew it</td>
<td>da-ts'la'5ts'lilin I chewed it</td>
</tr>
<tr>
<td>he$^{ee}$-$\ddot{i}$-k'a'5p'k'ibin I shall chip them off</td>
<td>he$^{ee}$-$\ddot{i}$-k'ap'a'k'ibin I chipped them off (118.11; 120.16)</td>
</tr>
<tr>
<td>(2) $e$:</td>
<td></td>
</tr>
<tr>
<td>$\ddot{i}$-ts'le'5ts'lilin I shall rattle it</td>
<td>$\ddot{i}$-ts'le'5ts'lilin I rattled it</td>
</tr>
<tr>
<td>$\ddot{i}$-he'5gwa'k'w'nan (see § 19) I shall work</td>
<td>$\ddot{i}$-he'5gwa'k'w'nan I worked</td>
</tr>
<tr>
<td>al-gesgasa'l't'e5 I shall be washing</td>
<td>al-gesgasa'l't'e5 I was washing</td>
</tr>
<tr>
<td>sene'sant'e5 I shall whoop</td>
<td>sene'sant'e5 I whooped (180.15)</td>
</tr>
<tr>
<td>hemhamac'uk' he will imitate him</td>
<td>heme'ham he imitated him 24.4, 8</td>
</tr>
<tr>
<td>(3) $o$ ($u$):</td>
<td></td>
</tr>
<tr>
<td>$\ddot{d}$-t'gumt'ga'm squeeze and crack (insects)!</td>
<td>$\ddot{d}$-t'gumu't'gi'mi5n I squeezed and cracked (insects)</td>
</tr>
<tr>
<td>$\ddot{i}$-yulya'al rub it!</td>
<td>$\ddot{i}$-yulu'yi5n I rubbed it</td>
</tr>
<tr>
<td>al-p'-$\ddot{i}$-ts'lu'5ts'lahi'p' do ye put it on fire!</td>
<td>al-p'-$\ddot{i}$-ts'lu'5ts'lahi'p' I put it on fire (152.20)</td>
</tr>
<tr>
<td>(4) $i$:</td>
<td></td>
</tr>
<tr>
<td>$\ddot{i}$-smi5smilin I shall swing it</td>
<td>$\ddot{i}$-smi5smilin I swung it (72.10)</td>
</tr>
<tr>
<td>$\ddot{i}$-s-wi'ls-wilin I shall tear it to pieces</td>
<td>$\ddot{i}$-s-wi'ls-wilin I tore it to pieces</td>
</tr>
<tr>
<td>ts'li5nts'lanzde5 I shall be angry</td>
<td>ts'li5nts'lanzde5 I was angry (24.16; 148.15)</td>
</tr>
<tr>
<td>$\ddot{i}$-si'ls'ahli distribute it!</td>
<td>$\ddot{i}$-si'ls'ahli he distributed it 31.1</td>
</tr>
<tr>
<td>de-k'iuk'auk'wan I shall brandish it before my face (172.11)</td>
<td>de-k'iwi'k'auk'wa'n I brandished it before my face (172.12)</td>
</tr>
<tr>
<td>yiwiya'5s one who talks 148.18</td>
<td>yiwiya'5 he talks, makes a sound 148.9</td>
</tr>
</tbody>
</table>
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 lew-ila- above (see under Type 12); yiwyawa's is thus developed from a theoretical *yiwyawa's.

The verb k'aep'k'ab- above illustrates a slightly divergent subtype of Type 13a. 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'aib'ak'aib- is dissimilated to k'aib'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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>i-sgo't'sgidin</td>
<td>i-sgo't'sgidin I shall cut them one after another (21.2,4)</td>
</tr>
<tr>
<td>ha-u-gwen-yu't'yidin</td>
<td>ha-u-gwen-yut'u'yidi'n I shall gobble them all down (144.2,3)</td>
</tr>
<tr>
<td>xx-i-sg'i'sp'sgibin</td>
<td>xx-i-sg'i'sp'sgibin I shall cut them through (21.2)</td>
</tr>
<tr>
<td>bãa-t'e'k't'a'x dó (=ta'g-x-)</td>
<td>bãa-t'e'klet'ax they all bobbed up (22.9; 138.7)</td>
</tr>
<tr>
<td>ba-i-di't'ga's't'gãšs stick out your anus! 164.19; 166.1,6</td>
<td>ba-i-di't'ga's't'gisi'n I stuck out my anus (166.8)</td>
</tr>
</tbody>
</table>

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'-gwagw-, swil'swal-, sgos't'sga'd-). 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:

*i-s'wil's'val (non-aorist of Type 13) tear it to pieces!; but i-s's'wil's'val' (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'li'n'is't'slanx- (also ts'li'n'is't'slanx- or ts'li'n'is't'slanx-190.19), may be mentioned:

gwen-hegwe'hagwanhi he related it to him 57.9; cf. 59.6
plu'li't'pla'hî 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 3045°—Bull. 40, pt 2—12—8

§ 40
falling accent (*sgöʷ*/*t*′sgad-, *sgöʷ*/*t*′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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>deʷ-t-geʰ'u̱kli̱w̱in</td>
<td>deʷ-t-geweʰ'kli̱w̱i̱n</td>
</tr>
<tr>
<td>důḻṯḻi̱ḻi̱n</td>
<td>důḻṯḻi̱ḻi̱n</td>
</tr>
</tbody>
</table>

I shall tie (a salmon) bowstring-fashion

I shall stuff them into it

This curious type of verb is easily explained if we assume that the bases are not *gew-* and *důl-*, respectively, but *geu* and *důl*.

They are, then, strictly comparable to verbs like *sgotʰosgad-* 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* and *důl*, formed according to Type 13a, are theoretically *gewegau̱s*, *geweegau̱s* and *důḻdadaḻ*, *důḻdadaḻ*, respectively. Allowing, as in the case of the forms like *kʰapʰakʰab-* discussed above, for catch dissimilation, these forms are seen to be phonetically equivalent to *geulḵau̱-, *geweḵau̱- and *důḻtaḻ-, *důḻtaḻ-, 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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>bāʷ-s-al-mοḻma̱lan</td>
<td>bāʷ-s-al-mοḻma̱lan</td>
</tr>
<tr>
<td>dāʷ-t-māw̱gal-leʰ'u̱li̱w̱in</td>
<td>dāʷ-t-māw̱gal-leʰ'u̱li̱w̱in</td>
</tr>
<tr>
<td>ha-ú-gwen-yuⁿ̱yiṉin</td>
<td>ha-ú-gwen-yuⁿ̱yiṉin</td>
</tr>
</tbody>
</table>

I shall turn things over

I shall shake shells in my ears

I shall gobble them down

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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>gwidaʰkʷ'xdañ</td>
<td>gwidaʰkʷ'xdañ</td>
</tr>
<tr>
<td></td>
<td>(a inorganic)</td>
</tr>
<tr>
<td>gwidiʰkʷ'xdañ</td>
<td>gwidiʰkʷ'xdañ</td>
</tr>
<tr>
<td></td>
<td>(108.21)</td>
</tr>
<tr>
<td>loboʰḻpʰ'nañ</td>
<td>loboʰḻpʰ'nañ</td>
</tr>
<tr>
<td></td>
<td>(57.14)</td>
</tr>
</tbody>
</table>

§ 40
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:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>xēp'đe*e I shall do so (110.22)</td>
<td>xebeň't'e*e I did so (14.10; 168.10)</td>
</tr>
<tr>
<td>wait'e*I shall sleep (71.15; 142.14)</td>
<td>wayañ't'e*e I slept (188.22)</td>
</tr>
<tr>
<td>gwen-p!i'k'wan (= -p!iy-) I shall lie on pillow</td>
<td>gwen-p!iyi'ňk'wa*n I lay on pillow</td>
</tr>
<tr>
<td>p!e'5t'e* he will be lying down</td>
<td>pleyeň<em>t'e</em>e I was lying down 71.5 146.9</td>
</tr>
</tbody>
</table>

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 9b. 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 (xebe*n-, p!iyin-), sometimes long (wayañ*n-) p!eye*n-. The stressed stem vowel bears a rising accent.

The -n of wayañ*n- and p!eye*n- is eclipsed before a catch in the third person:

- wayañ*e he slept 152.22; 154.6
- p!eye*n he was lying down 49.5

but:

- xebe*n he did it 78.9; 118.14

The loss of the -n takes place also in the third person aorist of $yañ*n$-go (Type 5). Thus:

- yañ*e he went 15.3,11; 59.1; 92.26

subordinate form $yañ*a*da$ 58.8 and (rarely) $yañ*a*n$da* WHEN HE WENT.

**TYPE 15.** Verb-stem $\{- -də\}$; aorist stem -i*. The ending -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

\[\text{§ 40}\]
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 15a may be given:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>s’a’s’ant’e⁵ I shall stand (cf. 23.6)</td>
<td>s’as’int’e⁵ I stand (34.1; 77.9)</td>
</tr>
<tr>
<td>s’u’tal’t’e⁵ I shall sit (55.11; 186.21)</td>
<td>s’u’twill’t’e⁵ I sat (21.1; 178.21)</td>
</tr>
<tr>
<td>k’e’p’al’t’e⁵ I shall be long absent</td>
<td>k’ebill’t’e⁵ I was long absent (124.20)</td>
</tr>
<tr>
<td>lâp’de⁵ I shall become (92.11; 166.14)</td>
<td>lâ’it’e⁵ I became (see also Type 10a) 186.19</td>
</tr>
</tbody>
</table>

Of examples of Type 15b may be mentioned:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>dinkla’sdâ⁵ it will lie stretched out</td>
<td>dinkli it lies stretched out</td>
</tr>
<tr>
<td>tlobagu’sdâ⁵ he will lie like one dead (148.8)</td>
<td></td>
</tr>
</tbody>
</table>

This non-aoristic -as- seems to occur also in:

da-sma-imas’de⁵ I shall smile da-smaya’im he smiled which otherwise belongs to Type 2 or 3 (if the second -m- is part of the base).

**Type 16.** Verb-stem v+ç+c₁+i; aorist v+ç+v+c₁. This type embraces only an inconsiderable number of verbs. They are:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Aorist stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>dî-k’al’a’side⁵ I shall be lean in my rump</td>
<td>di-k’ala’sna’⁵n I am lean in my rump 102.22</td>
</tr>
<tr>
<td>gvél-sal-t’e’iside⁵ I shall be lean in legs and feet</td>
<td>gvél-sal-t’eyësna’⁵n I have no flesh on my legs and feet 102.22</td>
</tr>
</tbody>
</table>

Several verbs of position that show an -i- in the aorist show an -i- in non-aorist forms. Whether this -i- is merely a shortened form of the aoristic -i-⁵, or identical with the non-aoristic -i- of verbs of Type 16, is doubtful; but, in view of the absence of the -i- in non-aorist forms of verbs of Type 15, the latter alternative seems more probable.

Such verbs are:

§ 40
Verb-stem | Aorist stem
---|---
da-sga’litāa it will lie scattered about | da-sgali it lies scattered about
p’ildti’tāa flat thing will lie | p’ildti flat thing lies
t’ge’its’idāa round thing will lie | t’geits’i’ round thing lies
s’eini’itāa it will lie with opening on top (like box) | s’eini’ it lies with opening on top
s’u’k’didāa it will lie curled up | s’ugwidit it lies curled up
w’i’kdīdīa it will lie heaped about | w’ik’lidit it lies heaped about

Of similar appearance, though the aorist (not the future) is transitive in form, is:

Verb-stem | Aorist stem
---|---
dāa-sge’k’ilt’ee’ I shall listen | dāa-sgek!iya’en I listened (third person dāa-sgek’i’ 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 (-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 cannot be well classified under any of the sixteen types illustrated above. They are:

gwen- xoxog[w]a’En I string (salmon) together (=fully reduplicated xoxog-; otherwise to be analyzed as xoxo- of Type 10 a) 74.14
sal-s’āxa’s’ix he slid

This latter verb with its mysterious i’ in the repeated syllable is absolutely unknown 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,

1. *t'geits* something round lies (138.24)
2. *t'geyeb* I roll it
3. *t'geya* I run around
4. *al-t'geyt'giya* I tie it around (my head) 188.5
5. *wil-t'geye* 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 *he* I LIE DOWN, *da-sgaya* I LIE DOWN, and possibly also *da-sgali* 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 *geig-* TWIRL FIRE-DRILL are very probably related, though neither

§ 42
the difference in vowel nor the use of different consonants can be explained. The same difficulty is met with in di’nik! a’n I stretched it out (62.1) and bāa-dinī’ti’a’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-ła'yága’n I wash him (64.5): al-ła'yáp’d’é I wash myself (not reflexive in form)
- p!ała'p’dé I relate a myth to him: p!ala'p’dé I relate a myth
ts!ayama’n I hide it (124.23): ts!ayáp’dé 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’n I roll it (base t'gey-), with secondarily intransitive derivative:
al-t'geya’pzx it is round (literally, it rolls)
he”-qaya’pzdé I lie down (derived, like al-t'geya’pzx, from some such transitive as *he”-qayaba’n I lay it down flat, that, however, does not happen to occur in the material at hand)
de”-gene’p’gwa he lay curled up like dog (also -gene’k’wa)
galaba’n I twist it by rolling (cf. gelg- twirl fire-drill)
sqilpx warm your back! (seems to imply *sqil’ba’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!ayáp’dé I washed my face
ts!ayáp’dé I hid
p!ala'p’dé I tell a myth
s’in-xináxáp’dé I sniff (cf. xin mucus)
s’a’nahap’dé I stand around (not trying to help anyone) (cf. s’a’s’unt’e I shall stand)
s’in-wi’l’tk’ap’dé I blow my nose
bāa-s’o’wöék’ap’dé 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 § 42
tslayåp'de or not, but such seems likely. Intransitives with non-aoristic -p'- are:

låp'de I shall become (92.11) (aorist lã'ål'e') 186.19
sana'p'de I shall fight (aorist sãansa'nt'e' [184.13])
tgunp'de I shall be cold (aorist t'gunak'de' [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'a's'anp'iik' we stand
s'a's'anp'iast' they (indef.) will stand
s'a's'anp' stand!
s'a's'anp'anp' do ye stand!
s'a's'anp'ga'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 låp'de, which occurs in the entire future. A form like låp' BECOME! is in that event perhaps to be analyzed as låa-p'-p', the first -p' being the non-aoristic element found also in låp'de, 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. -pl-. This consonant is evidently a suffixed element in:

ha-z-hâ'äl'p'h'in I skinned them (cf. ha-z-hâ'äl'zh'al they skinned them all 160.5)

3. -m-. Apparently as transitive element -m- appears in:

tslayama'z'n I hide it (124.23) (cf. tslayåp'de I hide [24.2])

As intransitive suffix it appears in:

t'gisiz'ëm it gets green
xudumt'e I whistle (base xud-; related to xdeit' flute [?]) (33.16)
t'slus'unmt'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:

t'slelent'e I rattle (102.13) (cf. i-ts'ele'ts'libi'z'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.

§ 42
-d-, -t- seems to be found only with transitive verbs:

\[\text{wå}°\text{himida}°n\text{ I speak to him (but with unexpressed object wå}°\text{himixade}° \text{I was talking [to somebody]) (59.16; 63.10)}\]
\[\text{dak}°\text{hene}°\text{da}°n\text{ I wait for him (cf. hene}°\text{xade}° \text{I wait)}\]
\[k}°\text{uyûmad}°n\text{ I call his name from distance, greet him (198.11)}\]

(probably derivative of k}°\text{û}°\text{yam friend! 31.6, 8)}

\[s°\text{omoda}°n\text{ I cook it (58.10) (cf. s}°\text{ûûmad}°xade}° \text{I cook)}\]
\[ts}°\text{ûûmad}°t°a}°n\text{ I cook it (170.17,19); future s}°\text{ûûmad}°t°an}° (170.16)\]

(cf. s}°\text{ûûmad}°xade}°’ stirring paddle 170.14)

\[då}°\text{mi}°\text{nî}°\text{k}'\text{da}°n\text{ I taught him; future då}°\text{mi}°\text{nî}°\text{t}°\text{an}°\]
\[lawadana}°n\text{ I hurt him (186.12)}\]
\[yamada}°n\text{ I ask him (70.6; 74.10; 120.16)}\]
\[wi}°\text{gimada}°n\text{ I “wish” to him, work supernatural power on him (57.1)}\]

\[mi}°\text{û}°\text{da}°n\text{ I love her}\]
\[xat°\text{î}°\text{ts}°\text{î}°\text{wii}°\text{t° he split it (26.6) (cf. i}°\text{ts}°\text{î}°\text{wii}°\text{t}°\text{sa}°\text{au he split it up)}\]

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°omda}° 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 då°\text{mi}°\text{nî}°\text{k}'-\text{da}°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 -i°- in aorist, -i°- in non-aorist forms (see § 40, 16). This aoristic -ad- appears always umlauted to -id-.

\[\text{cugwidt}°\text{-, non-aorist cuk'di- lie curled up}\]
\[\text{wik'idi}°\text{-, non-aorist wîk'di- lie heaped about}\]
\[\text{t'gup'lidî} \text{(box, canoe) lies bottom side up}\]

5. -t°-. This consonant has been found as an evident suffix in:

\[\text{bå}°\text{dî}°\text{nî}°\text{nt}°\text{tana}°n \text{I strung (dentaria) on line (59.9) (cf. dink}°\text{-stretch out)}\]
\[\text{t'gemê}°\text{t}°\text{uaw}° \text{it gets dark 188.14 (cf. t'ge}°\text{mt}°\text{ga'mx it is quite dark [cf. 196.7]; alt}°\text{ge'm black 162.4; [196.6]}}\]

\[\text{1 s°om-d- and s}°\text{ûûmad}°-d- \text{are parallel forms of one verb that seem to be used with no difference in meaning, though their aorist stems are formed according to different types.}\]

§ 42
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:

- tell him a myth
- I wash him (64.5)
- I drill for fire with it (88.12)
- he will pinch me (116.8,12) (cf. -k!us-ū'k!uw'as'i he always pinches me)
- I finish it (61.8; 176.6)
- I put holes in his ear (22.1) (cf. dāa-dele'p'i he stuck it across his ear)
- I run after him (59.13; 75.3; 120.19, 20)

Examples of its use in adjectival intransitives are:

- he feels hot, it is hot (57.15)
- it is good, he does right (180.11)
- I feel cold (90.3)
- I shall be full, satiated (128.11)
- I am lazy

Further examples of -k'- that are difficult to classify are:

- I tell the truth (184.3)
- you blow your nose
- I dive (connected with yal- lose [?]) (60.10,11; 61.11)

In wa-tilik'nin I GAVE EACH ONE (130.4) and in the morphologically analogous dāa-minsk'da'n I TAUGHT HIM (future dāa-mind'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 we'd- (verb-stem wede-) lack it:

- (from *wēl'si) he took it from me (17.3)
- he will take it from you (16.10,11)

7. **-k!-, -k!w-**. These elements seem to be characteristic of transitives. Examples are:

- he is surrounded on all sides (transitives and passives are closely related) 48.5,13; (176.14)
- I burn it (73.9,12; 96.26) (cf. al-p!i-t's!u'l-ts!a!lhip' do ye burn it! 198.10)
di’-sgü’yük!i’n I make it fall (48.7,8,12)
he’-de-le’lek!i’n I finish talking 50.4
di’nik!a’n I stretch it out (see under suffix -t!-) (59.9; 62.1)
he’ye!ki’n I left it over (61.7; 196.8)
p!üwü”k!a’n I name him (158.5) (cf. p!ü’wüplausi he keeps calling me)
tsi’ini’k’ he pinched it 31.1; (32.7)
ba-i-yunu’k!i’n I pull it out forcibly
he’-i-le’mek!i’n I killed them off (14.13; 43.1; 108.20)
ți-goyoyi’t!i’n I pushed him (49.2) (cf. t!i-goyogiyi’t!i’n I kept pushing him)
ba-i-s’in-x’ilik!wi’n I blow my nose (cf. xin mucus)
p!a-i-t’gwili’k!wanat’n I spill (water, blood) (58.1; 72.8) (cf. t’gwili’i’t’gwalk it keeps dropping)
-k!- seems to occur also in the perhaps only secondarily intransitive:
böa-s’owö”ki’ap!de’ (=s’owö”k!-hap’) I jump up (48.15; 49.1)
(cf. s’o’wösa’us’a’us keeps jumping [112.5,10])

8. -ts!-:. Only in a very few cases is this suffixed consonant met with:
t’geits’!i round thing lies (138.24)
di’-t’gumu’tel’i’n I squeeze and crack it (cf. di’-t’gumu’t’gimi’t!n I squeeze and crack many insects)
yowo’ts!ana’n I cause him to start
ha-yar-t’ge’nets’!i’n I put it about my waist
ha’w-ți-ha’nats’i’n I made it stop (raining) (152.16)

Judging from these few examples, -ts!- is characteristic, like -b!, -g!, -p!, -k!, -t!, of transitive verbs; t’geits’!i is probably related to a transitive *t’ge’yet’s!a’t!n, as is diink!i IT LIES STRETCHED OUT TO di’nik!a’n.

-s!- occurs as an evident suffix in:
di’-ti’isi’i’n I mashed them (cf. di’-tiyi’tiy’ya’n I mashed them one after another)

9. -(a)l!-. This suffix includes both intransitives and transitives:
al-gesegasa’lt’!e’ I was washing
k’ebili’t!e’ I was long absent (124.20)
s’u’wil’t!e’ I sit, (21.1); 72.9; (178.21)
yaml’t!e’ I look pretty (=['] = fat, sleek; cf. ya’mx fat, grease 54.5)
al-ve’!al’a’n I shine (126.3; 128.14)
ti’-wüyi’ili’t!i’n I make it whirl up
ți-k!e’wil’t!i’n I whirl it around
ti’-ge’yi’ili’t!i’n I roll it around
al-t’qi’ya’lx (tears) roll down his face 138.25
bö-t’gwü’la’lx (children) run about
k’ewe’k’awa’lx he barks
de-gülit’k’al!a’lx it was blazing 188.15

§ 42
The idea of unbroken continuity is fairly evidently shown by these examples to be connected with the suffix -(a)n-

10. -(a)n-. Quite a number of intransitives are found that have this element, to which no particular meaning can be assigned. Such are:

- **sas'int'e5** I stand (34.1; 77.9; 144.14,17)
- **moyūgwa'nt'e5** I'm spoiled
- **hūíh'nt'e5** I am tired (102.1) (cf. **hūíh'hilint'e5** I used to be tired [48.11])
- **ligint'e5** 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:

- **lawadana'nt'n** I hurt him (186.12)
- **ts'ilibina'nt'n** I make a speech to him (146.11; 178.11)
- **wa-t'ilib'ni'n** I gave each one (130.4)
- **k!elemnc'n** I 'shall make it (28.2,13,14) (aorist without object k!elemnc'za5 he makes)
- **wa-ūgwin'i'nt'n** I drink it with it (ūgwa'nxde5 I drink)
- **he-e-wa-ūgwin'i'nt'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:

- **hiwiliüt'e5** I ran to (24.1), but **hiwihlt'e5** I used to run to
- **sgeleUt'e** I shouted (196.1), but **sgelelt'e5** I kept shouting (59.3)

Examples of this group of verbs are:

<table>
<thead>
<tr>
<th>Aorist</th>
<th>Future (non-aorist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sgele'ut'</td>
<td>sgelwa'it' he will shout</td>
</tr>
<tr>
<td>hiiwiti'ns</td>
<td>hiiwila'it' he will run to</td>
</tr>
<tr>
<td>bili'ut'</td>
<td>bulwa'it' he will jump</td>
</tr>
<tr>
<td>de-wiilwa'ldan</td>
<td>de-wiilwa'ldan I shall fight him (derivative of intransitive)(27.3)</td>
</tr>
<tr>
<td>hii'ut'</td>
<td>hiiwa'it' he will climb</td>
</tr>
</tbody>
</table>

1Still, 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 sgele'ut' is for an older sgele'ut' e. This supposition is greatly strengthened by the future sgelwa'it' e I'LL KEEP SHOUTING (cf. sgelwa'da' e you will shout).

§ 42
In non-aoristic forms the phonetic conditions may, as usual, necessitate an inorganic -a-:

- ge wila’u run there! (29.10)
- sgela’ut’e I shall shout
- bila’ute 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:

- temeyana’us (second a inorganic) he goes with woman to see her married (148.5)
- temeya’nwia’us they (indef.) go with her to see her married (178.1)

(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’n I eat it 30.11 (gayat he ate it 54.5); future ga-iwa’n 128.18; noun of agent ga-iwa’s eater (of it) 94.3; but imperative ga’ eat it! 32.4; gark’ he ate it (inferential) 142.19
- al-sgalawi’n I turn my head to look at him; future sgälwi’n; part. sgala’uk’ (-a’- is inorganic) 144.17; but sgälk’a I looked at him turning my head (inferential)
- al-sgalawi’n (Type 8) I keep turning my head to look at him; future sgalwalwi’n; but sgelelxi he keeps turning his head to look at me
- ba-i-de-yega’giwida’n you will drive (sickness) out of (body) 198.4,5; imperative -ye’ga’u
- wägilwi’n I brought it to him (176.17); future wagawi’n; but wägsa’sbi’n I brought it to you (194.11)
- la'alwi’uhi he caused them to become (lä’- 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 (gat from *gaw; sgälk’a from *sgälwk’a*). 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 wäga’n I brought it (110.17) as com-
pared with waagjwjen 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 waagjwjen stands by the side of wāga'sbi'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'n: al-sgala'xbi'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 sūmmt'a- BOIL with constant -a-, though ending in a finally permissible consonant-cluster, because of aorist ts'lümūmt'a-; contrast non-aorist somd- BOIL without -a- because of aorist somd-). The following are examples of verbs of the character described:

<table>
<thead>
<tr>
<th>Aorist</th>
<th>Non-aorist</th>
</tr>
</thead>
<tbody>
<tr>
<td>swadāt'ga he followed him 75.3</td>
<td>swa't'ga follow him!</td>
</tr>
<tr>
<td>mats!āsqa he always put it 132.9</td>
<td>masqa' put it! 104.5</td>
</tr>
<tr>
<td>ts'lümūmt'a he boils it 30.2</td>
<td>sūmt'a boil it!</td>
</tr>
<tr>
<td>dās-minik' da he taught him</td>
<td>dās-miunt'a teach him! (contr-</td>
</tr>
<tr>
<td></td>
<td>trast wāhīmt' talk to him!</td>
</tr>
<tr>
<td></td>
<td>with aorist -kimid-)</td>
</tr>
</tbody>
</table>

If the verb is instrumental in vocalism (see § 64), the constant a is replaced by the instrumental i. Thus:

-vktlos'ōs' gi 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* or wāga'sbi'n) is shown by the fact that it is changed to -i- when-

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ever the object is not of the third person, in reciprocals, in reflexives, and in verbs with non-agentive -x-:

sweed'gixi he followed me
dän-minx'dixbi he taught you
yowō'snungxbi'n I cause you to start (but parallel yowō'utslanxbi'n with connecting a)
wayänhixbi'n I put you to sleep; wanhixigam I was put to sleep
i-k'us's'us'gixi he keeps pinching me; i-k'us'gi'xink' he will pinch me
i-tlene'hisdam you hold me 86.13,14.
i-lasgi'xant'p' touch one another!
i-lesg'i'k'wil' touching himself
bä-'t'ełhixde 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

lebe- pick up and eat (seeds)
loho- cause to die
wog- arrive
t'oxox- (aorist) gather
döux- (non-aorist)
hen-d- wait for
odo- hunt for
og- give to
döom- kill
wĩ- go, travel
plöq- swim
ts'iwu-d- split
sgip!- cut
hül-p!- skin, peel off bark
hog- run
he'tl- sing
al-ha|x- hunt

Repetitive

le'ep'láp' (non-aorist) · pick and eat many (seeds)! 34.2
loho'lahana'n I used to kill them
wogowa'k' many arrived 112.2
waii-d t'oxoxt'ixi'n I used to gather them
waii-d döxda'zk' they have been gathering them (inferential)
hene'handan' I always used to wait for him
odo'at' she always hunted for them 116.6
ogo'ak'i he always gave them 112.17
dömda'mk' he used to kill them (inferential) 25.1; 27.15
weyivwe'et's I used to go (there) 96.1
plaga'plak' he used to swim
xaii-ts!iwiz!ts!au he split it to pieces
sgiit p'sga'p'gam they had been all cut up (21.2; 138.7)
hetei-huítalal he kept peeling off bark (160.5)
hogo'hek'ede's I am always running
hele'hale' he used to sing
al-hyi'hyi'he's he always hunted (-hvi'=-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 13a, directly from the simple bases leb- (verb-stem levp'lab-, aorist lebelab-) and loh- (verb-stem lohlah-, aorist loholah-). Similarly, a form like plaga'plak' shows no trace of the aorist stem plagai- 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'sgidin' n I CUT IT TO PIECES (144.2) (cf. sgo'nda'n I CUT IT 72.10, base sgotl- § 43
45.10. Suffixes with no distinct derivative signification drop off in the frequentative (cf. ts:tiu-d- and bül-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:’ümümt’a he boils it; ts:’ümü’t’s:’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, tlooxox-, but of frequentative, tloox-o-tlx- with retained tl-. Such verbs as aorist tlooxotlx, non-aorist döwxdax-, are to be considered as of mixed type (in this case partly 8, partly 13a).

Verbs like odo’ad- and ogo’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’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 13c). Such are:

<table>
<thead>
<tr>
<th>Verb-stem</th>
<th>Repetitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>wa-yanagwa’n</td>
<td>wa-yana-inagwa’en</td>
</tr>
<tr>
<td>him</td>
<td>I used to run after him</td>
</tr>
<tr>
<td>waître</td>
<td>wayañhíde’</td>
</tr>
<tr>
<td>I shall sleep (71.15; 142.14)</td>
<td>(-h- conditioned by accent)</td>
</tr>
<tr>
<td>he’l-yoena’n</td>
<td>yonoina’en</td>
</tr>
<tr>
<td>I shall sing a song (106.7)</td>
<td>I always sing it</td>
</tr>
<tr>
<td>waga’n</td>
<td>wagão’k’na’en</td>
</tr>
<tr>
<td>I shall bring it</td>
<td>I used to bring it (ʔ= *wagawng-, but see 4, footnote) (45.6)</td>
</tr>
</tbody>
</table>

A very peculiar type of frequentative formation is illustrated by:

loha’lhih’ (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 loholah-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
---|---
*kleme*-[*n-]* | *kleme*'-*amga*n I always make it (instead of *kleme*'-*klama*n) *(77.5)*; *klema*'-*mk* (=*-amg-*k' he used to make it (inferential) *122.18*

*tomo* | *tomo*-'*amda*n I used to kill them (instead of *tomo*'-*tlama*n) *(13.10; 54.3)*

*k!uwe* | *k!uwe*'-*aga*n I used to throw them away (instead of *k!u-*we*k'!awa*n) *(134.6)*

*p!uwe*- | *p!uwe*-'*ega*n I keep calling his name *(100.21)* (instead of *p!uwe*'-*plau*k!a*n; cf. *p!uwe*'-*plau*k!a*ni he keeps calling me by name)

*de-nts*| *de-nts*-'*anx* he always died (instead of *nts*-'*nts*!'anx) *74.7*

*l!eme*- | *l!eme*'-*amk*' he used to take (everything) (instead of *l!eme*!'amk*')

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!uwe*'-*auk* (from *k!uwe*k!au) is dissimilated to *k!uwe*'-*auk*. Similarly a theoretical *p!uwe*'-*auk* (from *p!uwe*!*plau*k') is dissimilated to *p!uwe*'-*auk*. The non-aorist frequentative forms of these verbs sometimes follow the first method of formation (cf. *do*mda*rmk* under method 1), sometimes the second (as *klem*'-*amg*).
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!emèt HE MADE IT and -n- of k!eme'nxa¯ HE MAKES, also the aorist characteristic of dī-t!ūgūi HE WORE IT, are not found in their corresponding frequentative forms.

4. $v + c + v^r + c$. The large number of verbs whose frequentatives follow this formula (1a 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:

<table>
<thead>
<tr>
<th>Aorist stem</th>
<th>Repetitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>dī-t!ūgūi- wear</td>
<td>dī-t!ūgūi't' he keeps wearing it, used to wear it</td>
</tr>
<tr>
<td>k!oso-g- pinch</td>
<td>ī-k!osō-gi he is always pinching him</td>
</tr>
<tr>
<td>himi-d- talk to</td>
<td>wā-himi'mda'èn I used to talk to him</td>
</tr>
<tr>
<td>baxam- come</td>
<td>baxāxmia'es they keep coming</td>
</tr>
<tr>
<td>t!ūlū-g- follow</td>
<td>ha-t!ūlū'lgα'èn I keep following in (trail)</td>
</tr>
<tr>
<td>al-sgal-aw- turn head to look at</td>
<td>al-sgalā-lwii'm I keep turning my head to look at them</td>
</tr>
<tr>
<td>gaya-w- eat</td>
<td>gayā'wda'èn I used to eat it</td>
</tr>
<tr>
<td>hene-d- wait for</td>
<td>hene'nda'èn I keep waiting for him</td>
</tr>
<tr>
<td>p!alag- tell a myth</td>
<td>p!alā'lgα'n the myth is always told</td>
</tr>
<tr>
<td>hem-g- take out</td>
<td>ba-i-heme'mgu'èn I always took them out</td>
</tr>
<tr>
<td>āyū's- laugh</td>
<td>āyū'è̊s'de (dissimilated from <em>āyū'è̊s</em>- [?]) I keep laughing</td>
</tr>
<tr>
<td>ts!ayag- shoot</td>
<td>ts!ayark' he used to shoot them</td>
</tr>
<tr>
<td>yilim- ask for</td>
<td>yili'mna'èn I keep asking for it (see § 21)</td>
</tr>
</tbody>
</table>

§ 43
Aorist stem  Repetitive

\textit{ts'aya-m-} hide  \textit{ts'aya-ima'\textsuperscript{tn}} I always hide it (134.8)

\textit{gini-g} go to  \textit{ginink'} they went there one after another 46.11

\textit{mats!ag-} put  \textit{mats!asga} they always put it away 132.9

\textit{wits!im-} move  \textit{wits!'ismade\textsuperscript{e}} I keep moving

\textit{sgelew-} shout  \textit{sgelelt'\textsuperscript{e}} (see \S\ 18) I keep shouting (59.3)

\textit{hiwiliw-} run to  \textit{hiwilitl'\textsuperscript{e}} (see \S\ 18) I keep running

The verb \textit{yewei-} \textit{return} seems to form its frequentative according to method 4, but with added \textit{-g-}:

\textit{yewè'ok'} he used to come back 47.4; 116.2; \textit{yewèoga't} you used to come back; \textit{yewèok'de}, \textit{yewèak'de\textsuperscript{e}} 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 \textit{ts'aimk'} \textit{HE HID IT} is \textit{ts!aimik'} \textit{HE WAS ALWAYS HIDING IT}
of \textit{bil\textsuperscript{a}1c'} \textit{HE JUMPED} it is \textit{bilwàlk'} (= \textit{THEY ALWAYS JUMPED} 160.16. From \textit{gàrk'} (inferential) \textit{HE ATE IT} 142.19 is formed \textit{gayàrk'} (if really inferential in form; perhaps third person subject aorist \textit{gayag}- in contrast to \textit{-gayàw} of other persons, see above) \textit{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 \textit{-w-}. The form \textit{wits!'is\textsuperscript{e}made\textsuperscript{e}} \textit{HE WILL KEEP MOVING}, given as the future of \textit{wits!'ismade\textsuperscript{e}}, can not, for want of parallel forms, be accounted for. From \textit{sgàl\textsuperscript{w-}}, non-aorist of \textit{sgalaw-}, is formed the frequentative \textit{sgalw-alw-} (perhaps according to Type 8, \textit{lw-} being a consonatic unit).

5. \textbf{Vowel lengthening.} Many verbs, particularly such as belong to Type 2, obtain a usitative significiation by merely lengthening the short repeated vowel of the stem, this vowel, when stressed, assuming the falling accent. Examples of this simple process are:

\footnote{It is not at all certain that the \textit{-o-} (\textit{-u-}) of these forms really represents the \textit{-w-} of the stem. It is quite probable that there is a distinct type of frequentative in \textit{repeated vowel+-og-}, in which case \textit{waguv'\textsuperscript{k'wàs}\textsuperscript{i} I USED TO BRING IT} (see above under 1) would be another example.}

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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. ɓ + (c+) ha. The accented vowel (ɓ) 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:

<table>
<thead>
<tr>
<th>Simplex</th>
<th>Repetitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>yimi's'a$ he dreams</td>
<td>yimi$'s'a$ he is always dreaming</td>
</tr>
<tr>
<td>lük!ü'xa$ he sets traps</td>
<td>lük!ü'xxa$ he used to set traps</td>
</tr>
<tr>
<td>geyeswa'lxde'da$ ba-ɪk'iyi'k' when I ate he came</td>
<td>geyeswa'lxde'da$ ba-ɪk'iyi'k' whenever I used to eat he came</td>
</tr>
<tr>
<td>k'ewe'k'awal he barks</td>
<td>k'ewe'k'awal he is always barking</td>
</tr>
</tbody>
</table>

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$ I SHALL JUMP, not *bilate, because of inorganic -a-). They also illustrate the loss in the frequentative of a non-radical element (-i-) of the simplex; in s'ü'alt'ha$ the loss of the -i- involves also the transfer of the verb to the first class of intransitives (second person singular, Class I, s'ü'alt'hat' YOU STAY AROUND; Class II, s'ü'wil't'am YOU SIT).
7. $v + \text{ilha}$. 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:

<table>
<thead>
<tr>
<th>Aorist (or verb) stem</th>
<th>Repetitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>$t!oxox$- gather</td>
<td>$wa^{-t-i-t!oxöllhi^e}n$ I always gather them</td>
</tr>
<tr>
<td>($bä^{a-t}ek!-x$ emerge)</td>
<td>$[bä^{a-t}ek!elhixia^e]$ they all emerged 60.11</td>
</tr>
<tr>
<td>($sgip!-$ cut)</td>
<td>$xa^{-t-i-sgip!ilhi}$ he cut them all through 26.11</td>
</tr>
<tr>
<td>$klo^t'k!ad$- break</td>
<td>$xa^{-t-i-yä^{a-k!odo}lhi}$ he always just broke them in two 29.1</td>
</tr>
<tr>
<td>($al-xik!-$ see)</td>
<td>$al-xik!ilhi^e$ I used to see him</td>
</tr>
<tr>
<td>$gwidl(k^w-d)-$ throw</td>
<td>$gwidilha$ he kept throwing it (164.11)</td>
</tr>
<tr>
<td>($lok!-$ trap)</td>
<td>$lok!öllha$ he was always trapping them 78.4; 100.4</td>
</tr>
</tbody>
</table>

The non-aoristic forms of these frequentatives dispense with the repeated vowel ($\bar{o}$) 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!ölha 108.8 from verb-stem sgöt!- cut, aorist sgöd-, like sgöt!o'sgat').

8. $v + w + v + \text{ilha}$. Only two verbs have been found that follow this very irregular formula for the frequentative:

<table>
<thead>
<tr>
<th>Simplex</th>
<th>Repetitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>$láp'$ 'became!' 25.2</td>
<td>$[lawa'llhip'$ always become! (78.5)</td>
</tr>
<tr>
<td>$läsle'$ 'it became' 22.7</td>
<td>$[dahöza lava'llhida^e$ whenever it became evening 44.1; 78.6</td>
</tr>
<tr>
<td>$ligigwa^u^n$ I fetch (game)</td>
<td>$liwi'llhagwa^u^n$ I always come home (70.3,5; 164.4)</td>
</tr>
</tbody>
</table>

The latter of these shows at the same time an unaccountable loss of the $-g$- of the stem; the future of the simplex, $li'gwa'n$, probably does not exhibit an absolute loss of the $-g$-, but rather a contraction of $li'g-gw$- to $li'gw$-.
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 -*e* = -tx- ro, indirective -an(an)- ron, 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 (ə) 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-, -i-) 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:

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Causative</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>yelnada’</em> you will be lost (a palatalized by preceding y to -<em>e-</em> ) 14.3</td>
<td><em>yalnanda’</em> you will lose it</td>
</tr>
<tr>
<td><em>yowo’</em> he is 21.1</td>
<td><em>bâ</em>-î- *yowoni’*n I woke him up (literally, I caused him to be up with my hand) 16.4</td>
</tr>
</tbody>
</table>

§§ 44–45
Intransitive

t'awu'ek' he is hot 94.15
ba-i-biliwata' you ran out 24.15
hax it burns 94.18
t'aga'te he cries 62.2
hoyotta' he dances 46.12
hoida'te' he will dance

yana-go (aorist)
yana-go (non-aorist)
hene'n they were used up 184.6
yowo's he started, was startled 186.10
yo'sesdäa he will start 186.10
t'obigta he lies like dead
t'obaga'sdä he will lie like dead (148.8)
sas'int he stands 144.14
s'a'santäa he will stand
de-güli'kalx it blazes 188.15
pele'xan he goes to war 126.13
dak'-limimxgwa (tree) falls on him (108.12)

Causative

ba-i-yowoona't'n I miss him in shooting (I cause him to be out) (138.5)
ba-i-yowonna't'n I make him hot
ba-i-biliwana't' he ran him out
hänna he burned it 98.8
hänanka'wa he burned him up 27.16
t'agana'tn I make him cry
t'egenzi he makes me cry
hoyodana't'n I make him dance
hoidana'n I shall make him dance
yäna'n he made him go; yä-nana'n I made him go
yänha (= *yan-nha) he made him go; yänha'n I made him go.
yänna'n I shall cause him to go
t-henenini't'n I used them up
yowo'sts'anxb' I startled you
(yowo's)snixhi'n (for change of a to i see § 42, 12)
yo'slanan I shall startle him
yowo'sman

yo's'änham I shall make him stand
s'as'ínänha'n I make him stand
s'as'änha'n I shall make him stand
de-güli'kalzna'n I make fire blaze
p'ele'xana'n I make him go to war
dak'-limimxgwa'dini'n I chop (tree) on to him

1 Also yana'k'nan I SHALL MAKE HIM GO, with inserted and unexplained suffix -k'.

§ 45
Intransitive

\[\text{ywèwè}^{te} \quad \text{he returned} \quad 49.10\]

Causative

\[\text{bà}^{w}^{-}i \quad \text{ywèwèn} \quad \text{he cured him (literally, he caused him with his hand to return up)} \quad 15.2\]

The causative in \(-\text{ënhà-}\) is sometimes usitative in meaning:

\[\text{lòhònha} \quad \text{he used to kill them}; \quad \text{lòhòn} \quad \text{he killed them} \quad 142.9\]

Examples occur of transitives in \(-n\)- formed from intransitives in which no causative notion can be detected:

\[\text{da-lònhà}^{n} \quad \text{I lied to him}; \quad \text{de-lùnhizì} \quad \text{he lied to me (intransitive \(\text{da-lo}^{t}e^{e}\) I shall lie \([110.23]\))}\]

\[\text{gel-wayà}^{n} \quad \text{na}^{n} \quad \text{I slept with her \([26.4]\)}; \quad \text{gel-wa-inà}^{n} \quad \text{I shall sleep with her \([108.3]\) (intransitive \text{wàyàn}^{t}e^{e} \text{I sleep} \([188.22]\); \text{waà}^{t}e^{e} \text{I shall sleep \([188.20]\)}); \quad \text{but \text{wàyànha}^{n} \text{I cause him to sleep \([162.1]\); \text{waànhàn} \text{I shall cause him to sleep, waànhà put him to sleep \([106.4,8]\)}\]

The connective \(a\) of the causative suffix \(-\text{an-}\) in the aorist is treated differently from the \(a\) of the non-aorist forms in so far as in the former case the \(-\text{an-}\) diphthong, when stressed, receives a raised accent, while in the latter the \(a\), as a strictly inorganic element, takes the falling accent. Thus:

\[\text{Aorist} \quad \text{Non-aorist}\]

\[\text{hò}^{w} \text{gwa}^{n} \text{he made him run} \quad \text{hòghwa}^{n} \text{make him run!}\]

\[\text{(ywèwè he caused him to return)} \quad \text{ye}^{w} \text{wa}^{n} \text{make him return!}\]

\[\text{(p}^{1} \text{agà}^{n} \text{he bathed him \([186.25]\))} \quad \text{plà}^{e} \text{gà}^{n} \text{bathe him!} \quad 186.24\]

In other words, the phonetic relation between aorist and non-aorist illustrated by several verb types (e.g., agàn- : ag\([a]\)\(n\)-) is reflected also in the causative suffix \((-\text{an-}: -[a]\text{n-})\). The same is true of other \(-[a]\text{n-}\) suffixes not causative in signification (see § 42, 10):

\[\text{Aorist} \quad \text{Non-aorist}\]

\[\text{ì-kì}^{w} \text{àma}^{n} \text{he fixed it} \quad 150.13 \quad \text{ì-kì}^{w} \text{àma}^{n} \text{fix it!}\]

\[\text{(kì}^{w} \text{emènxbi}^{n} \text{I make you \([27.9]\))} \quad \text{kìma}^{n} \text{make it!} \quad 186.24\]

§ 46. Comitative \(-\text{(a) gw-}\)

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 \(-\text{gw-}\) (final \(-k^{w}\), rarely \(-k^{w}w\) in monosyllables); after a consonant (including semivowel) a connective \(-a-\) appears before the \(-\text{gw-}\), though in a few cases (as in aorist \(yà\text{n}^{n}-\) go) the \(-\text{gw-}\) is directly appended. Dissyllabic stems ending in vowel + \(-g\)- or \(-w\)- often add the comitative \(-\text{gw-}\) 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*-n-* CAUSE TO DIE, but *loho*-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:

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Comitative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>yä<em>n</em>- go (aorist)</strong></td>
<td><strong>yänk</strong> he takes it along (lit., he goes having it) 17.13</td>
</tr>
<tr>
<td><strong>yana-</strong> (non-aorist)</td>
<td><strong>yanagwa’n</strong> he will take it along</td>
</tr>
<tr>
<td><strong>ligi-</strong> come home from hunt</td>
<td><strong>ligi’</strong> he fetched game home 70.3</td>
</tr>
<tr>
<td>(aorist)</td>
<td></td>
</tr>
<tr>
<td><strong>litg-</strong> (non-aorist)</td>
<td><strong>ligwa’n</strong> (= <strong>lig-gwa’n</strong> ) he will fetch game home(130.6)</td>
</tr>
<tr>
<td><strong>gini(g)- go to</strong></td>
<td><strong>ginigwa’n</strong> I take it to (31.11); also <strong>giniyagwa’n</strong> (13.12); future <strong>ginagwa’n</strong> (= <strong>ginag-wa’n</strong> with inorganic a because of preceding n) (146.6)</td>
</tr>
</tbody>
</table>

**Dal-yewey-** run away

**wil-** travel

**lo¹l-** play

**daway-** fly

**henen-** use up, be satiated

**yewey-** return

**yaway-** talk

**he’l-** sing (non-aorist)

**helel-** (aorist)

§ 46
Intransitive

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tlobagas-</td>
<td>lie like dead (non-aorist)</td>
</tr>
<tr>
<td>uyũs’-</td>
<td>laugh</td>
</tr>
<tr>
<td>baxam-</td>
<td>come</td>
</tr>
</tbody>
</table>

Comitative

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>nax-da-tlobaga’sgwank’</td>
<td>he lies like dead with pipe in mouth</td>
</tr>
<tr>
<td>uyũs’sgwa’n</td>
<td>I laugh at him</td>
</tr>
<tr>
<td>da-yawix baxama’k’we</td>
<td>they came talking (literally, mouth-talking they-came-with) 126.2</td>
</tr>
<tr>
<td>lōw’x biliwagwana’k’</td>
<td>we play at fighting (literally, play we-fight-having)</td>
</tr>
<tr>
<td>wa-bili’gwa’t’n</td>
<td>I jump having it (=*biliugwa’t’n, see §7)</td>
</tr>
</tbody>
</table>

biliw- fight, jump

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:

uyũs’sgwasi he laughs at me
henenagwa’sam he ate us up (192.15)
bãa-wa-dawiyagwa’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 forms built up on intransitive verbs derived from transitives:
lukHi’xagwadinien I trap for him (probably = I cause [-in] him to be having [-gwad-] [some one] to trap [lukHi-xa-] [for him]); but lukHi’xagwasi he traps for me
p’ele’zagwadini’t’n I go to war for him; but p’ele’xagwasi 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 causal suffix -(a)n- between it and the comitative suffix -gw-:
lukHi’xagwant’gwide’ I trap for myself (probably = I cause [-an-] myself [-gwi-] to be having [-gw-] [some one] to trap[lukHi-xa-] for [-t’-][me]).

§ 46
Comitatives in -gw- are formed not only from intransitivized transitives in -xa- (e.g., t-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**

<table>
<thead>
<tr>
<th>Comitative</th>
<th>Non-agentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>sgö'usde' (= sgö'ud-x-de') I cut (without implied object), am across (148.8)</td>
<td></td>
</tr>
<tr>
<td>he'e-me-e-t'bo'u-k't'baX he lay down with his arms folded, lay rolled up and put away (cf. he'e-me-e-t'bo'u-k't'baqa'n I roll it up and put it away)</td>
<td></td>
</tr>
<tr>
<td>wa-i-s'ilgü'siixgwa5n I am sleepy (literally, something like: I am confused having sleep)</td>
<td></td>
</tr>
<tr>
<td>ba-i-s-il'i'x he landed</td>
<td></td>
</tr>
<tr>
<td>wa-i-s'ilgü'siixgwa5n I roll with it wa-i-s'ilgü'siixgwa5n I am sleepy (literally, something like: I am confused having sleep)</td>
<td></td>
</tr>
<tr>
<td>ba-i-s'il'i'xgwa he landed with (his canoe) 13.5</td>
<td></td>
</tr>
</tbody>
</table>

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'-limmítxgwađe5 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'-limim¿mgwa'n. Morphologically similar to dak'-limmítxgwađe5 are doubtless:

heve'kózgwade5 I yawn (literally, I am having —[?])  
yel'e'xgwade5 (= yelet'-x-gwa-) I am sweating (literally, I am —having it, i.e., perspiration [?])

With such an interpretation, the form dak'-limmítxgwađi'n I CHOP IT ON TO HIM becomes readily intelligible as a causative built

---

1 sgö'usde' and sgö'usgwadn are morphologically quite clearly related, though in signification the latter form has widely departed from what must have been its primary meaning.  

§ 46
up on an intransitive in -xgwa-; literally translated it would read I CAUSE (-in) HIM TO BE WITH (-gwad-) (IT) FALLING (limi’tm-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, üyüsgwa- LAUGH AT, sgö*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:

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Comitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>hoyod-</td>
<td>hoyod-agw- dance (a particular kind of) dance 100.15; 102.9</td>
</tr>
<tr>
<td>bāa-yān-</td>
<td>bāa-yān-gw- pick up 24.3; 59.15</td>
</tr>
<tr>
<td>ba-i-gini-gw-</td>
<td>ba-i-gini-lgw- take out (no leg motion necessarily implied)</td>
</tr>
<tr>
<td>xeben-</td>
<td>xebenuy-agw-1 hurt, destroy 136.23</td>
</tr>
</tbody>
</table>

§ 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 derivativ 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-
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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:

<table>
<thead>
<tr>
<th>Aorist</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>ogoyi't' n</td>
<td>o'k'in (170.13; 180.9,16)</td>
</tr>
<tr>
<td>ogu'sbin n</td>
<td>o'sbin (178.15)</td>
</tr>
<tr>
<td>(oyonxbi'n I give you)</td>
<td>(o'nxbin I shall give you)</td>
</tr>
<tr>
<td>wè't'gi'n (for -g- see §42, 5)</td>
<td>wede'k'in (17.10,11)</td>
</tr>
<tr>
<td>took it from him 76.1</td>
<td></td>
</tr>
<tr>
<td>wesbi'n I took it from you (17.3)</td>
<td>wede'sbin (16.10,11)</td>
</tr>
<tr>
<td>al-da-p'òw-p'ivi'n I blew at it(15.1)</td>
<td></td>
</tr>
<tr>
<td>al-da-p'òp'ausbi'n I blew at you</td>
<td></td>
</tr>
<tr>
<td>wà'giwiv'n I brought it to him (for -w- see §42, 11) (176.17)</td>
<td>waga'v'n I shall bring it to him</td>
</tr>
<tr>
<td>(for -w- see §42, 11) (176.17)</td>
<td></td>
</tr>
<tr>
<td>wa'ga'sam n I brought it to us (194.11)</td>
<td>wege'sink' he will bring it to me</td>
</tr>
<tr>
<td>eiyi't'n I hurt him</td>
<td></td>
</tr>
<tr>
<td>eisbi'n I hurt you</td>
<td></td>
</tr>
<tr>
<td>goyai'n he ate him 54.5</td>
<td>ga-iwa'nk' 130.5</td>
</tr>
<tr>
<td>goya'usbi'n I ate you</td>
<td>gaisbink' he will eat you 26.8</td>
</tr>
<tr>
<td>al-yebebi't'n I showed it to him (77.8)</td>
<td>al-yebi'n I shall show it to him</td>
</tr>
<tr>
<td>al-yebìe'psi'n I showed it to you</td>
<td>al-yèpsi show it to me</td>
</tr>
</tbody>
</table>

1 The -p- is peculiar to aorist forms of this verb with a third personal object (oguyi't' YOU TO HIM; ogobi 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 -s- + -g- gives -s-, but *wesdams (=wed-sdams) YOU TOOK IT FROM ME.

§ 47
Some verbs that belong here show the -s-- only in the aorist, other forms having only -x-. Examples are:

\[
\begin{align*}
\text{Aorist} & & \text{Future} \\
he^{e}-i^{i\text{wi'}i}^{\prime}n & \text{I went away from} & he^{e}-i^{i\text{wi'}i}^{\prime}n \\
him & 23.12 & \\
he^{e}-i^{u^{\text{bsbi}}i}^{\prime}n & \text{I went away from} & he^{e}-i^{i\text{wi'}xbin}^{\prime} \\
y^{i}m^{i}^{\text{msbi'}}^{\prime}n & \text{I lent it to you} & 98.15 & yimi'xi lend it to me! 98.14, 21 \\
i-t!a^{u}\text{uiliwi'}^{\prime}n & \text{I catch him} & 33.4 & i-t!\text{a}^{u}\text{wi'}^{\prime}n (33.8) \\
i-t!a^{u}\text{a'usbi}^{\prime} & \text{he caught you} & & i-t!\text{a}^{u}\text{xbin}^{\prime} (140.15) \\
naga^{t}n & \text{I said to him} & 72.9 & n\text{a}^{u}gi'n (15.15; 196.20) \\
naga'sbi'\prime n & \text{I said to you} & 108.4 & n\text{a}^{u}xin (60.3) \\
dak'-da-h\text{a}^{u}\text{tili'}^{\prime}n & \text{I answered him} & (61.6) & dak'-da-hala'xin \\
(134.20) & \\
sa\text{nsa}^{\prime}n & \text{I fight him} (110.20) & sana'\prime n (28.15; 33.9) \\
sa\text{nsa}'nsbi'\prime n & \text{I fight you} & sana'\prime xbin \\
\end{align*}
\]

§ 48. Indirective -(a')Id-

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:

\[
\begin{align*}
hili'\text{te}^{e} & \text{I climb} & hiliwa'\text{lda}^{e}n & \text{I climb for it} (77.8) \\
yada'te^{e} & \text{I swim} (yada\text{-d}) & yada\text{a}^{\prime}lda\text{e}^{n} & \text{I swim for him (to save him from drowning)} \\
bili'\text{ue} & \text{he jumped} 32.13; 78.11 & yeda\text{di}'si & \text{he swims for me} \\
d-o-tlaya\text{tie} & \text{they went to get} & biliwa'\text{lsae}^{n} & \text{they fought (literally, they jumped at, for each other)} 27.4 \\
(\text{something}) & \text{to eat} 75.9 & \\
\text{da-d\text{a}o'ya}^{\prime}te' & \text{(future)} (33.9) & da-t!layaldi'\text{e}^{n} & \text{I went to get it to eat; da-tlay\text{al}t' he went to get it to eat (\text{a} shows by its accent that it is part of stem)} 76.9 \\
sgele'\text{ue} & \text{he shouted} 59.4; 90.8 & da-d\text{a}^{\prime}l\text{di'}^{n} (\text{future}) (33.9) & sgeleva\text{lt'} he shouted to, for him 59.4; (94.1) \\
\end{align*}
\]
wiliw- go, run
xudumaldaen I go and show it to him
dewiliwamndaen I fight him (27.3)
xudumala'ndaen I whistled to him (33.16)

ligi'k'w he fetched home (game)
deligia'lt' he fetched it for him to eat 126.9; 130.9

70.3; 128.12; ligi'k' he came home (with game) 124.22
yonoba'lt' they held nets waiting for fish 32.1

In wō'lt' he went after it 29.12 the -id- 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 dissimi-
lated 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

malagiwut (they are jealous (cf. malag-, malagan- tell)
yalaka'de I dive (61.8)
(lagag- feed)
legwel he sucked it (186.18)
(geleg- twirl)

āwi'tsi laugh
ya'mt' ask him! 70.6

klemem- make
bak'-t'gū'ba'ndaen I put (hat-like object) over as covering

§ 49
§ 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., lohōninini'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

\[
\begin{array}{ll}
\text{wa}^8-tlo\ddot{\text{o}}x\ddot{	ext{oxi}}^\text{e}n & \text{I gather them for him} \\
\text{(192.4)} & \\
\text{\ddot{\text{i}}-\text{k}!\ddot{\text{u}}^*\text{ma}^\text{e}n} & \text{he fixed it for him} \\
\text{(150.13; 186.16,18)} & \\
\end{array}
\]

Indirective

\[
\begin{array}{ll}
\text{wa}^8-tllo\ddot{\text{o}}x\ddot{x}ininini'n & \text{I gather them for him} \\
\text{wa}^8-t!\ddot{\text{a}}\ddot{\text{xanxi}z}i & \text{he gathers them for me} \\
\text{\ddot{\text{i}}-\text{k}!\ddot{\text{u}}^*\ddot{\text{e}}\text{minininini}'s}n & \text{I fixed it for him} \\
\text{\ddot{\text{i}}-\text{k}!\ddot{\text{u}}^*\text{minininini}'nk} & \text{he will fix it for him} \\
\text{\ddot{\text{i}}-\text{k}!\ddot{\text{u}}^*\text{manan'xi}z} & \text{he fixed it for me} \\
\text{\ddot{\text{i}}-\text{k}!\ddot{\text{u}}^*\text{manu\text{e}nh}i} & \text{fix it for him} \\
\end{array}
\]
Transitive

\[\text{lā}^\text{a} \text{ba}^\text{e}^\text{n} \text{I carry it} (178.4,5,6)\]

\[\text{dō}^\text{u} \text{ga}^\text{e}^\text{n} \text{I trap them} (78.5)\]

\[k\text{tādāi}- \text{pick (aorist)}\]

\[\text{kō}^\text{dū} \text{dū}- \text{pick (non-aorist)}\]

\[\text{dē}^\text{2} \text{-wi}^\text{tī} \text{gi}^\text{e}^\text{n} \text{I spread it out} (120.1)\]

\[\text{klemem}- \text{make}\]

\[\text{limimana}^\text{e}^\text{n} \text{I fell tree (cause it to fall)} (108.11)\]

\[\text{lohō}^\text{e}^\text{n} \text{na}^\text{e}^\text{n} \text{I cause him to die} (142.9)\]

\[\text{dō}^\text{u} \text{nk'wan}^\text{k} \text{he will kill him} (116.18)\]

\[\text{sā}^\text{2} \text{gua}^\text{e}^\text{n} \text{I paddle it} (60.1; 112.9)\]

\[\text{p}^\text{1} \text{ahanana}^\text{e}^\text{n} \text{I cause it to be cooked, done}\]

Indirective

\[\text{lā}^\text{a} \text{binini}^\text{e}^\text{n} \text{I carry it for him}\]

\[\text{lā}^\text{a} \text{ba}^\text{e}^\text{n} \text{na}^\text{e}^\text{n} \text{he carries it for me}\]

\[\text{lō}^\text{u} \text{ginini}^\text{e}^\text{n} \text{I trap them for him}\]

\[\text{p}^\text{ii} \text{yin} \text{n} \text{lu}^\text{t} \text{gan} \text{xi} \text{he traps (deer) for me}\]

\[\text{lō}^\text{u} \text{k'linin} \text{I shall trap them for him}\]

\[\text{k}^\text{tādāyini}^\text{e}^\text{n} \text{I pick them for him}\]

\[\text{k}^\text{tāda} \text{dini}^\text{e}^\text{n} \text{I shall pick them for him}\]

\[\text{k}^\text{tē} \text{deyana'nxi he picks them for him}\]

\[\text{k}^\text{tē} \text{dū} \text{dinin}^\text{e}^\text{n} \text{I shall pick them for him}\]

\[\text{de}^\text{2} \text{-ti} \text{-wi}^\text{tī} \text{gan} \text{xi he spreads it out for me}\]

\[\text{klememini}^\text{e}^\text{n} \text{I make it for him}\]

\[\text{klēmnin}^\text{i}^\text{n} \text{I shall make it for him}\]

\[\text{limimini}^\text{e}^\text{n} \text{I fell it for him}\]

\[\text{lohō}^\text{e}^\text{n} \text{ni}^\text{e}^\text{n} \text{i} \text{I killed him for him}\]

\[\text{lohō}^\text{e}^\text{n} \text{na}^\text{n} \text{ni}^\text{e}^\text{n} \text{he killed him for him}\]

\[\text{lūhū}^\text{e}^\text{n} \text{na}^\text{n} \text{xi he killed him for me}\]

\[\text{dō}^\text{u} \text{mana}^\text{n} \text{k'wan}^\text{k} \text{he will kill him for him}\]

\[\text{han-seq} \text{wa}^\text{'} \text{nsin I am paddled across (literally, it, i.e., canoe, is paddled across for me)}\]

\[\text{p}^\text{1} \text{a} \text{hayinini}^\text{e}^\text{n} \text{I make it done for him}\]

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:

\[\text{§ 50}\]

\[\text{1 For the change of suffixed n to y see § 46, second footnote.}\]
There must be a difference in signification, however, between k!edèisi and k!edey'ssxi. 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 d9ise'exi HE OPENED THE DOOR FOR ME (i.e., in order to let me in) (63.12) with de9se'eganxi HE OPENED THE DOOR ON MY BEHALF (perhaps because I was unable to do so myself).

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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!edèisi he picks them for me (literally, he picks to me, alongside of k!edey'ssxi he picks them for me)
me6bëpxip' come and chop out (a hole) for me (to enable me to get out) (literally, come and chop me!) 90.16
gel-t!eye'mxi he hid it from me (158.7); but gel-t!ayamini 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'tugin(in)i'n I TRAP (DEER) FOR HIM built up on a transitive in both form and meaning (i.e., lō'tugan), but lük!ü'xagwa-dini5n I TRAP FOR HIM built up on a formal intransitive (lük!ü'xan). 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'mana'nk'widā he will kill them for himself
tlūmāk'vank'widē I kill them for myself
dēs-i-wit'gank'widē I spread it out for myself
han-seg'gwa'nk'widē I paddle myself across, really, I paddle (canoe) across for myself

1 There must be a difference in signification, however, between k!edèisi and k!edey'ssxi. 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 de9se'ezzi HE OPENED THE DOOR FOR ME (i.e., in order to let me in) (63.12) with de9se'ezzi 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-:

lökli'xagwant'gwi' 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-ži-t'gili'sgwa¹ he scratched his own nose 14.11; 15.7
mānx al-nūa'k'wa (= gw-k'wa) he painted his own face (cf. nōw gw-i'n I paint it)
iz-gaxaga'tgwa²n I scratch myself, i. e., my own (cf. i-gaxagixi'en I scratch him)
i-pli'-nōw'k'wa warm your hands! (188.20) (cf. i-pli'-nōw'k'wi'n I warm his hands)
s'in-de'le'p'gwa he stuck it into his own nose (cf. dān-dele'p'i' he pierced his - another's — ear)
bils 4al-giligī'k'wa²n I covered myself with moss (48.14) (cf. bils 4giligī'k'wa in I covered him with moss)
bils 4giliga'llk'wa²n I covered my hands with moss
gwen-p!iyn'k'wa he lies on pillow (probably = he causes his neck to lie)²
k!edēk'wa'n I pick them for myself (literally, I pick my own)
de-k'iook'aw'k'wa he brandished it before his face 172.11
i-k!i'ma'nak'wa he prepared himself, got ready 172.2 (cf. i-k'wa-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

¹The object, generally a body-part, to which the action refers is printed in Roman characters.
²p!iyn- connected with -pleyen- LIE?

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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-de⁴le'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-de⁴le'p'i would mean he pierced another's ear. The former sentence can also be expressed more analytically by dā-nxla⁴gwa hadele'p'i his-own (-dagwa) -ear he-in-pierced-it; dā-nxla 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'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 zabade I STRETCH (SOMETHING) OUT. Fourthly, a direct reflexive is formed by the suffix -gwi-: ba-i-de-di'ni k'wid!e I 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 xan! n THEY (actively and literally) STRETCH ONE ANOTHER OUT. Sixthly, the non-agentive voice is formed by a suffixed -x-: ba-i-de-dini'x!e 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, bāo-dini'x!e (CLOU D S) 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 -i-, non-aoristic -as-: dinik!t it lies SPREAD OUT, referring to a long string or other elongated body extended on the ground; future dinik!a' s'dāa. A synopsis for the second person singular (and reciprocal plural) of dinik!-(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'xi! we go to fight. Like other non-radical -a- vowels it may be umlauted to i: som-lū-hūxiya'me they (indef.) OPERATE as somloho'txa'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-, [aj]d; 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:

lūbā'xa² she pounded 16.9; ī-lū'pxagwank' she will pound having it (pestle) 55.10 (aorist transitive lōbo'p' she pounded them 16.9)

ti'la'mxade² I went fishing (ti'la'mda'n I fished for them)

kā'wa'nxaz she sifts 57.15 (kā'wa'nda'n I sift acorn meal [16.10])

dak'-t'ak'te'xa² he smokes 96.23 (Type 5 dak'-t'e'g'itn I give him to smoke [170.13])

plebë'xa² he beat off (bark) 55.6 (plabab- chop [90.11])

lebe'sade² I sew (lebeda'n I sew it)

sgīl'd'xa² he is cutting 92.2 (Type 5 aorist sgīd- 72.10)

al-zikt'ixa² he looked around 102.12 (Type 5 aorist al-zig- 124.8)

lūk'lù'xa² he traps (Type 5 aorist lōg'z- 78.5); future lū't'xagwa-dinin I shall trap for him

wā-himi'xade² I was talking to somebody (wā-himida'n I talked to him [59.16])

dak'-da-hele'balxade² I always answer (dak'-da-hā'litn I answer him [146.14])

dak'-hene'xa² he waits; future dak'-henxa't'e² I shall wait (dak'-heneda'tn I wait for him)

yimis'a² (= -s'-xa²) he dreams; future yimsa't'e²; imperative yimsa'

In k'teme'nxade² I was making, working (future klemxat't'e²) the loss of the -n- in the non-aorist forms (cf. klemna'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'om5k'wide I kill myself (from t'omom-)
- al-yebe'p'gwi' he showed himself (yebeb-)
- al-zt'ik'wit' he looked at himself
- plagänk'wide I bathed (literally, I caused myself to bathe; cf. plagän'na't'en I bathe him)
- se'la'mt'gwide I shall paint myself (se'la'mdan I shall paint him)
- t'gwaaxänk'wide I tattooed myself (t'gwaaxän I tattooed him)
- t'gwaaxän't'gwide I shall tattoo myself (= for myself)
- 'gis'ga's'gwide I tickle myself
- al-wa-ts'eyek'wide I washed myself with it
- dä'-delega'mt'gwide (=dä'-dele'p'gwa'n) I pierce my ears
- (yäl') klenemk'wit' they made themselves (strong) 27.12
- xuma ogok'wide I give food to myself (= I food-give myself)
- t-lesgi'k'wide I shall touch myself

Before the imperative endings -p', -p'anp' the reflexive suffix becomes lengthened to -gwi-:

- kët'gwi'p' pick them for yourself!
- degwa'lt'gwi'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: nagai-k'wit' he said to himself 104.1 (cf. nagai'k'wa, §62).

§ 55. Reciprocal

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 këdëlsi 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 (këdëshi); see §31, 6.

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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:

- **kloyošxinik** we go together, accompany one another (33.15)
- **ūlēunixinašni** let us play shinny!
- **ū-latslašxinik** we touch one another
- **al-sin-lōºxašn** they meet each other (literally, they thrust noses to one another)
- **tūmōxan** they kill one another (33.10)
- **gel-wayanxašn** they were sleeping together (literally, they caused each other to sleep facing each other) 190.2
- **al-xššan** they looked at each other

Examples of -s-an-, i.e., of indirect reciprocals, are:

- **nagašsašn** they said to each other 31.9 (cf. **nagaššbin** I said to you [100.1]; future **nāxanšt** (cf. **nāxbin** [60.3])
- **sāºnsašnsašn** they fight one another (23.14; 184.13) (cf. **sāºnsašns-**
- **bišn**); future **sanašxanšt** (23.15) (cf. **sanašxbin**)
- **hēš-šāšašn** they went away from one another (cf. **heš-šūšbišn** [184.14]); future **hešš-šwišxanšt** (cf. **hešš-šwišxbin**)
- **lōšmašlasašn** they quarreled with each other 27.2; 86.10
- **wōº-himišsašn** they talked to one another 124.14 (cf. **wōº-himišbišn**)
- **lōºqwaššinistas** let us play 32.5 (cf. **lōºqwaššbin** future)
- **tūššššlalšinistas** let us play at gambling-sticks (**tūššl**) 31.9
- **al-segešššcinik** we keep nodding to one another; **sešškašš-**
- **sank** we nodded to one another (inferential) 172.10 (but unreduplicated **al-seššxinik** 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 $x^a-ts\cdot liwi\cdot xa^e$ (aorist transitive $ts\cdot liwi\cdot d\cdot$); in the latter, by $x^a-ts\cdot liwi\cdot s\cdot$ (= $ts\cdot liwi\cdot d\cdot x$). It is true that in some cases the use of $-x$ does not seem to be logically justified (e.g., al-hu'gaxde$^e$ I hunt 136.18; al-ho-yoiya'te$^e$ 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 limim-x-gwa-, §46). Examples of the non-agentive are:

<table>
<thead>
<tr>
<th>Transitive</th>
<th>Non-agentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>i-k'wâ'agwî'n I awakened him</td>
<td>k'wâ'axde$^e$ I awoke (16.3) (future k'wâ'axde$^e$ [190.5])</td>
</tr>
<tr>
<td>leme$^e$h' they took them along</td>
<td>leme$^e$x they all went 136.7</td>
</tr>
<tr>
<td>16.4 (future i-k'wâ'k'win)</td>
<td></td>
</tr>
<tr>
<td>i-t'ge'yîlî'en I roll it</td>
<td>t'ge'ya'l'x it rolls</td>
</tr>
<tr>
<td>de-ts\cdot tibi'p' he closed door</td>
<td>de-ts\cdot tibi'x (door) shut</td>
</tr>
<tr>
<td>p'la-i-ha-u-t'gû'p' he upset it</td>
<td>p'la-i-ha-u-t'gû'apx it upset 60.8</td>
</tr>
<tr>
<td>wa$^a$-t'teme'm he assembled them</td>
<td>wa-t'lemexia$^e$ people assembled 144.23</td>
</tr>
<tr>
<td>110.3</td>
<td>ha-u-hana'te$^e$s (= -a't$^e$tx) it stopped (152.15; 198.9)</td>
</tr>
<tr>
<td>ha$^w$-i-ha'nats$^e$t'n I made it stop</td>
<td></td>
</tr>
<tr>
<td>48.7, 8</td>
<td></td>
</tr>
<tr>
<td>dî-sgu'yu:k'tî'n I knock it down</td>
<td>dî-sgu'yu:k$x$k' it fell (nobody pushing) (59.11; 62.1)</td>
</tr>
<tr>
<td>(108.21; 138.3)</td>
<td>hû'lb'ln'k'wa (tiredness) gwidig-wa's (= -a'tx) he was plumb tired out (probably = he tottered with tiredness) 120.12</td>
</tr>
<tr>
<td>i-gwidiqwa't'î he threw them down</td>
<td>smili'smat$^e$xdex$^e$ I swing$^1$ (73.2)</td>
</tr>
<tr>
<td>bâ$^a$-t'e$'gi$'en I lift it up (Type 5)</td>
<td>bâ$^a$-t'ek't'et'ax it bobs up and down (60.11,13,14)</td>
</tr>
</tbody>
</table>

In some verbs $-alx$ (= continuative $-al$- + non-agentive $-x$-) seems to be quite equivalent to the intransitive $-xa$-:

geyewa'lx$^e$ I am eating (31.3) (but, hortatory, getxaba$^e$ let us eat) le$^e$ba'nx$^e$ I carry (178.6) (lâ'ba'te$^e$ n I carry it [178.3,4]) w$^u$'gwa'nx$^e$ 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

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$^1$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.

§ 56
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 *tgwilik'w*- (*tgwili'x*- *water, blood drops, drips* 58.1) are formed:

- *p!a-i-tgwili'kh'wana'n* I (voluntarily) drop, spill it
- *p!a-i-tgwili'x'na'n* I have it drop (unavoidably), spill it (72.8, 16)

§ 57. Positional-*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 -*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'id!i* IT (box-like object) LIES UPSIDE DOWN is a verb expressing the result of the action defined in *p!a-i-ha-u-t'gù'ba'n* I USET IT and *p!a-i-ha-u-t'gù'p'x* IT USET 60.8. From one point of view the suffix -*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!i* long, stretched out object lies (transitive aorist *dinik!*-)
- *t'geits'!i* round object lies (138.24) (*t'geyets'!-*)
- *p'il!i* flat object lies
- *t'obigi* corpse, dead-looking body lies
- *s'eini* box-like object with opening on top lies
- *p!a-i-ha-u-t'gup'id!i* box-like object with opening below lies (*t'gù'b-*)
- *s'ugwid!i* curled-up object (like bundle of rope) lies
- *da-sgali* scattered objects (like grain on floor) lie
- *wik'id!i* several objects heaped together lie (*w!i'g-*)
- *s'as'ini* erect object is, he stands 34.1; 45.12; 77.9
- *s'w'wili* sitting object (person) is, he sits, dwells 21.1; 57.2
- *k'eb!i* absent object is, he is long absent 124.20

Not so clearly positional are:

- *lãal!i* (generally heard as *lã!te*) it becomes 33.17; 45.3
- *yam!i* 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.

57 §
Certain Takelma place-names in -i (or -i-k', -i'-k' with suffix -k' characteristic of geographical names) can hardly be otherwise explained than as positional verbs in -i-, derived from nouns and provided with local prefixes defining the position of the noun. Such are:

- **Dil-dani** (Table Rock (probably = rock [da'n] is [-i] west [dī-])); west of the rock would be dī'-dana' (cf. dana't k' my rock)
- **Dak'-tgam-i-k'** (cf. Dak'-tgamia' person from D.) (= place where [-k'] elks [t'ga'm] are [i] above, on top [dak'-])
- **Dal-dani'k** (cf. Dal-daniya' one from D.) (= place where [-k'] in brush, away from creek [dal-] is [-i] rock [da'n])
- **han-xilmī** ghost land (= across river [han-] are [-i] ghosts [xila'm])
- **de-dī'wi** near the falls of Rogue River (= in front [-de-] are [-i] falls [dīa])

§ 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'nia'us** people go 58.14; 152.5
- **wa'zi-tlemēzia'us** people assemble 144.23
- **e'bia'us** people are 192.7 (cf. e'bi'k' we are 180.13)
- **tsläa yō'ya'uk'** there was ( Inferential) deep water (cf. 188.14)
- **sā'nsa'xinia'us** fighting is going on 23.14
- **dōmzbiya'ut'** people will kill you (intransitive; but transitive with definite third personal subject dōmzbihk' 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:

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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 Dī'tani'.

§ 58
loptodiao'te it is raining, hailing, or snowing 90.1; 152.11 (but
definitely nōx lop!o't it rains 90.1; (198.9); ts!elam lop!o't it
hails; plā'as lop!o't it snows 90.2; 196.7)
lep'inia'uk' it has gotten to be winter
samgia'at'e it will be summer (92.9)
samgiaugulugwana it is about to be summer (literally, it is sum-
mer-intended, see § 68) (ci. 48.13)
t'ūwūgia'atse it is hot (i.e., it is hot weather; but t'ūwū't'k' it, some
object, is hot [25.10]; 94.15)
we'gia-uda' when it is daybreak 73.6; 126.13


§ 59. INTRODUCTORY

Every Takelma verb except, so far as known, the defective copula
eit'ē 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 charac-
terized by a -k'(-g-) following the objective, but preceding the sub-
jective, 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 fulfill-
ment, as in GO AWAY! while the command expressed by the future

§ 59
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:

\[ \text{mena}' \ (\text{bear}) \ y\acute{a}p\acute{a} (\text{man}) t\lott\acute{e}k'w\acute{a} (\text{it killed him}) \]

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:

\[ \text{mena}' \ y\acute{a}p\acute{a} \ d\lott\acute{e}k'wak' \text{ it seems that the bear killed the man; the bear must have, evidently has, killed the man} \]

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.

§ 59
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:

<table>
<thead>
<tr>
<th></th>
<th>Aorist</th>
<th>Future</th>
<th>Inferential</th>
<th>Present imperative</th>
<th>Future imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>-e', -e'</td>
<td>-e', -e'</td>
<td>-k'-an'</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Second person</td>
<td>-(a')t'</td>
<td>-(a')da'</td>
<td>-k' e't'</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Third person</td>
<td>-e'</td>
<td>-(a')d'</td>
<td>-k'</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Plural:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>-(a)ba'</td>
<td>-(a)ya'm</td>
<td>-k' ana'k'</td>
<td>-(a)ba'</td>
<td></td>
</tr>
<tr>
<td>Second person</td>
<td>-(a)t'p'</td>
<td>-(a')t'ba'</td>
<td>-k' e'tp'</td>
<td>-(a')mp'</td>
<td>?</td>
</tr>
</tbody>
</table>

1 It is possible that this suffix is really -k'aa': -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 intransitives in form (cf. -s'e and -s'oe' as first person singular and plural subject of intransitives); the third person is without ending in both. The ending -k'-aa' is made particularly likely by the subordinate in -k'-aa'na'-da'a' (see § 70).

The imperative is necessarily lacking in the first person singular and third person. The first person plural in -(a)ba' of the present imperative is used as a hortatory: yanaba' LET US GO! 158.11; (cf. 168.11). This -(a)ba' is not infrequently followed by emphasizing particles: -ni' (e.g., yu'ba'a'ni' LET US BE! [cf. 158.8]); -hi (e.g., ye'ba'zhi' LET US RETURN! 63.1; see § 114, 2), or -ha'n (e.g., ya'na'ba'ha'ni' LET US GO 64.1), the last of these being clearly identical with the nominal plural element -han (see § 90); -ni'ha'n is also found (ya'na'ba'a'ni'ha'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' (-daba' 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', -t', and -t'ba' 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

§ 60
pronouns, §§ 91–3) is used after consonants, -"a'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 -a5, 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 ett' THOU ART, ett'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 sa°nsan-san- FIGHT WITH ONE ANOTHER), and an indefinite in -iau- (aorist t'ūwū-g-iau- BE HOT).

**AORIST**

<table>
<thead>
<tr>
<th>Singular:</th>
<th>yowo't'e I run</th>
<th>baxama't'</th>
<th>I come</th>
<th>a'nsa'na'stn</th>
<th>t his y</th>
<th>t'ūwūg'sa't' it is hot</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>yowo'</td>
<td>baxama</td>
<td>a'nsa'na'stn</td>
<td>t his y</td>
<td>t'ūwūg'sa't' it is hot</td>
<td></td>
</tr>
<tr>
<td>Second person</td>
<td>yowo'</td>
<td>baxama</td>
<td>a'nsa'na'stn</td>
<td>t his y</td>
<td>t'ūwūg'sa't' it is hot</td>
<td></td>
</tr>
<tr>
<td>Third person</td>
<td>yowo'</td>
<td>baxama</td>
<td>a'nsa'na'stn</td>
<td>t his y</td>
<td>t'ūwūg'sa't' it is hot</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plural:</th>
<th>yowo'st'</th>
<th>baxama't'</th>
<th>a'nsa'na'stn</th>
<th>t his y</th>
<th>t'ūwūg'sa't' it is hot</th>
</tr>
</thead>
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<tr>
<td>First person</td>
<td>yowo'st'</td>
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<tr>
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<td>yowo'st'</td>
<td>baxama't'</td>
<td>a'nsa'na'stn</td>
<td>t his y</td>
<td>t'ūwūg'sa't' it is hot</td>
</tr>
</tbody>
</table>

**FUTURE**

<table>
<thead>
<tr>
<th>Singular:</th>
<th>yu't'e</th>
<th>baxm't'e</th>
<th>a'nsa'san't'</th>
<th>t'ūwūg'sa't'</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
<tr>
<td>Second person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
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<tr>
<td>Third person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Plural:</th>
<th>yu't'e</th>
<th>baxm't'e</th>
<th>a'nsa'san't'</th>
<th>t'ūwūg'sa't'</th>
</tr>
</thead>
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<tr>
<td>First person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
<tr>
<td>Second person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
</tbody>
</table>

**POTENTIAL**

<table>
<thead>
<tr>
<th>Singular:</th>
<th>yu't'e</th>
<th>baxm't'e</th>
<th>a'nsa'san't'</th>
<th>t'ūwūg'sa't'</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
<tr>
<td>Second person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
<tr>
<td>Third person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plural:</th>
<th>yu't'e</th>
<th>baxm't'e</th>
<th>a'nsa'san't'</th>
<th>t'ūwūg'sa't'</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
<tr>
<td>Second person</td>
<td>yu't'e</td>
<td>baxm't'e</td>
<td>a'nsa'san't'</td>
<td>t'ūwūg'sa't'</td>
</tr>
</tbody>
</table>

3045°—Bull. 40, pt 2—12—11  § 60
The -i- of -That evidently corresponds to the -i- in the first person plural aorist -ii, future -igans, 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): haew.ik!emnilxs'E LET US SWEAT, with -i- because of instrumental -i.

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-.

<table>
<thead>
<tr>
<th>Singular:</th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>First person</td>
<td><em>yu'k'w</em></td>
<td><em>bazma'k'a</em></td>
<td><em>sana'zank</em></td>
<td><em>f'wä'gän'k</em></td>
</tr>
<tr>
<td>Second person</td>
<td><em>yu'k'el'it</em></td>
<td><em>bazma'k'el'it</em></td>
<td><em>bazma'k</em></td>
<td></td>
</tr>
<tr>
<td>Third person</td>
<td><em>yu'k</em></td>
<td><em>bazma'k</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plural:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td><em>yu'k'ana'k</em></td>
<td><em>bazma'k'ana'k</em></td>
<td><em>sana'zank'ana'k</em></td>
<td></td>
</tr>
<tr>
<td>Second person</td>
<td><em>yu'k'el'it'p</em></td>
<td><em>bazma'k'el'it'p</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. The -i- of -bas evidently corresponds to the -i- in the first person plural aorist -ik', future -igan', 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): haew.ik!emnilxs'E LET US SWEAT, with -i- because of instrumental -i.

**FUTURE IMPERATIVE**

<table>
<thead>
<tr>
<th>Singular:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Second person</td>
<td><em>yu'k</em></td>
<td><em>bazma'k</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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:

- **eit** thon art 108.2, **eit'p'** ye are 14.10 (contrast yeweya't' thou returnest [58.13], but yeweit'e I return [188.4] like eit e I am 198.2)
- **nagatt** thou sayest 56.5, **nagatt'p'** ye say 170.4 (contrast t'agaya't thou criest, but t'agatt'e I cry [180.5] like nagatt e I say 180.1)

To this somewhat irregular group of verbs belongs probably also *lō*-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* 70.4 (not *lō*), 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 cebik' 190.13, and the (of class II) indefinite ebeb'w 120.7, the latter two with loss of i and intrusive -b-. The third person and the non-aorist forms are supplied by yō- RE.

2. -eb appears also in certain intransitives: *hiscell* he used to run, *sgell* he kept shouting, in which the rising accent is probably radical (see § 43, 4); these forms, furthermore, have lost a w, § 18 (of *hiscell e* I run, *sgell e* I shout).

---

§ 60
loplo't it rains 90.1, 2 (yet loplo'da't you are raining 198.9; lop'da'8t it will rain; lop'da'x to rain, § 74, 1)
hax it burns 98.1 (yet haxa'8t it will burn)

Several intransitive Class I usitatives seem to lack the catch of the third person aorist also:

gini8nk' he always went to 46.11 (from gini'k he went to)
witc!isma he keeps moving (from witc!i'8m 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:

klema'8nk' he made it (verb-stem klemn-)
bila'uk he jumped 160.17 (verb-stem bilw-)

Double diphthongs are often allowed to stand unaltered before -k' (e.g., oct8k'HE GAVE THEM; also imperative otn GIVE THEM!) sometimes doublets, with double diphthong or with inorganic a, are found (e.g., tsla'8mk' or tslaya'mk' HE HID IT; also passive participle tsla'mhak'w HIDDEN, but tslaya'mm HIDE IT! tslaya'mm HIDE ME! tslaya'mmxamk' 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 -k'. Examples are:

he8n8k'w (= -a'gw-k') he consumed them (cf. 48.10); but he8na'k'w consume them!
wa-yana8k'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 *loplo'da't', the form to be expected, as the subordinate is loplo'da'x, not *loplo'da'8a', which would be required by a *loplo'da't' (see § 70). § 60
§ 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 -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:

\[ \text{sene'samte5 I whoop (110.20; 180.15)} \]
\[ \text{wite5 I go about (90.1; 92.29; 122.23)} \]
\[ \text{liginte5 I rest (48.11; 79.2, 4; 102.1)} \]
\[ \text{hii)-11'i'nee5 I am tired (48.4,11; 102.1, 8; 120.11)} \]

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:

<table>
<thead>
<tr>
<th></th>
<th>Aorist</th>
<th>Future</th>
<th>Inferential</th>
<th>Present imperative</th>
<th>Future imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>-t'e', -de'</td>
<td>t'e', -dee</td>
<td>(-p')-ge'</td>
<td>(p')</td>
<td>(-p')-gatm</td>
</tr>
<tr>
<td>Second person</td>
<td>-t'am', -dam</td>
<td>-t'a', -d'ae</td>
<td>(-p')-ke'm</td>
<td>(p')</td>
<td>(-p')-ik'</td>
</tr>
</tbody>
</table>
| Third person | (d') | -d'a, -d'aa | (-p')-k' | (p') | (-p')-

Plural:

<table>
<thead>
<tr>
<th></th>
<th>Aorist</th>
<th>Future</th>
<th>Inferential</th>
<th>Present imperative</th>
<th>Future imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>(p')-ik'</td>
<td>(p')-iga'm</td>
<td>(p')-ga'me'k'</td>
<td>(p')-abat</td>
<td>(p')-abat'</td>
</tr>
<tr>
<td>Second person</td>
<td>-t'ap', -d'ap'</td>
<td>-t'abo, -d'abo</td>
<td>(p')-ke'el'i'p'</td>
<td>(p')-anp'</td>
<td>(p')-anp'</td>
</tr>
</tbody>
</table>

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'm[ = -k' + -am]); the -a- between the -i- 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' ãa 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'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'bi'uw:

sene'sanp'iau there is whooping, se'nsanp'iauw t' there will be whooping

In the third person of the aorist, positionals in -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 -i'. There is every reason to believe that the absence of a -i' 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's- STOP), a reflexive (aorist i-lets!ek'wi- TOUCH ONE'S SELF), a positional (aorist s'as'ini-i- STAND), and one of the miscellaneous verbs (wi'- GO ABOUT).

### AORIST

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>hana'sede' I stop</td>
</tr>
<tr>
<td>Second person</td>
<td>letsik' wide' I touch</td>
</tr>
<tr>
<td>Third person</td>
<td>hana'sdama</td>
</tr>
<tr>
<td>Positionals</td>
<td>letsik' widam</td>
</tr>
<tr>
<td>Reflexives</td>
<td>letsik' wit'</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>sas'init'w I stand</td>
</tr>
<tr>
<td></td>
<td>sas'init'am</td>
</tr>
<tr>
<td></td>
<td>sas'init'</td>
</tr>
<tr>
<td></td>
<td>sas'init'ap'</td>
</tr>
<tr>
<td></td>
<td>sas'init'ap'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
</tr>
<tr>
<td>Second person</td>
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<tr>
<td>Third person</td>
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<tr>
<td>Positionals</td>
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<td>Reflexives</td>
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<td>Miscellaneous</td>
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<table>
<thead>
<tr>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
</tr>
<tr>
<td>Second person</td>
</tr>
<tr>
<td>Third person</td>
</tr>
<tr>
<td>Positionals</td>
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<tr>
<td>Reflexives</td>
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<tr>
<td>Miscellaneous</td>
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<td></td>
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</tbody>
</table>

§ 61
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:

plalē̂p' tell a myth! (cf. plala'p'deś I shall tell a myth, with inorganic second a)

sandē̂p' fight! (cf. sana'p'deś 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 (wök he arrives 47.15; wök'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'ā'elhaś they always dwell 112.2 (from s'uv'wili 21.1; but first person plural s'ā'elhībik'); contrast Class II s'as'a'nhap' he keeps standing (from s'as'int 34.1)
wogovā'k' they keep arriving 112.2 (from wök')
s'o'wō's'aś they keep jumping (112.5,10) (from s'owō'wāk'ap 48.15)
Several non-agentives in -x- drop the -x- and become Class I intransitives in the frequentative:

\[ p!a-i-t'gwili't'gwal^x \text{ (water) keeps dripping down (cf. } p!a-i-t'gwili't'gwal^x \text{ it drips down 58.1)} \]
\[ xä^a-sgot'o'sgat' \text{ it breaks to pieces 62.1 (cf. } xä^a-sgö's^a=-sgö'^d-x \text{ it breaks [61.13]} \]
\[ xä^a-sgö'^ut'sgadat' \text{ it will break to pieces (cf. } xaa_sgo'sda \text{ it will break [148.8]} \]

**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:

\[ dömxbina^x \text{ you will be killed (178.15)} \]
\[ dömxbigulu'k'w \text{ he will kill you} \]
\[ dömxbi's \text{ one who kills you} \]
\[ dömxbiya \text{ to kill you} \]

are analogous, as far as the incorporated pronominal object (-bi-) is concerned, to:

\[ dömxbink' \text{ he will kill you; } tlomöxbi'n \text{ I kill you} \]

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:

*tomôk'wa* it killed him 15.16; 28.11
*he's-rûk'wa* he went away from him
*hâxanôk'wa* he burnt him 27.16
*sâqa'svênk'wa* he fought with him 28.10
*nagaik'wa* he said to him 152.3 (with very puzzling intransitive
-i-; contrast *naga'* he said to him)
*wei'gigwa* she took (it) away from him (49.6)
*lôk'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):

*i-tlana'hagwa* he held him (25.10); cf. *i-tlana'hi* he held it 27.4
*dak'-da-hâlk'wa* he answered him 180.18; cf. *dak'-da-hâ'li*n I answered him (146.14)

It is thus evident that forms with suffixed -k'wa approximate intransitives in form (cf. *nagaik'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 -k'wa, the preceding vowel being lengthened with falling accent. Examples are:

*tlayâk'wa* he found him 71.14; cf. *tlaya'k*' he found it 43.4; 134.17
*malâk'wa* he told him 22.8; (72.14); cf. *malagana'ñhi* 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'k'wa they bit him 74.5 (aorist stem -k!os'og-
he\ě=ileme'ek'wa he destroyed them (50.2); cf. he\ě=ileme'k'i\e^n I
destroyed them (110.2)
mül'ük'wa he swallowed him 72.16; cf. mül'ük'k'a\e^n I swallowed
him (73.1)

Verbs that have a suffixed comitative -(a)gwa- show, in combina-
tion 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\e^n I hurt him [136.23])
uyuiesgigwa he laughed at him 27.5 (cf. uyuiesgwam 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'i\e and o'k'igwak', the latter of which
necessarily refers to a human indirect object. If a noun or inde-
dependent pronoun be put before these apparently synonymous forms,
sentences are framed of quite divergent signification. In the first
sentence (noun + o'k'i\e') the prefixed noun would naturally be taken
as the object (direct or indirect) of the verb (e. g., ne'k'di o'k'i\e, HE WHO-GAVE IT? [= TO WHOM DID HE GIVE IT?]); in the second
(noun + o'k'igwak'), as subject, a doubly expressed object being inad-
missible (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\e-wäk' literally, HE-WHO-HITHER-BROUGHT-IT? WHO BROUGHT IT
TO HIM? with subject ne'k'di reads (as inferential form) ne'k'di
wagawa\e'k'wa (-o- unexplained). HE FOUND THE ANTS is expressed
by tlibisi\i' tlaya'k', but THE ANTS FOUND HIM by tlibisi\i' tlayäk'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
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' = -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 döum (aorist t!omom-) KILL will show the method of combining subjective and objective pronominal elements.

### AORIST

<table>
<thead>
<tr>
<th>Subjective</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person singular</td>
<td>Second person singular</td>
</tr>
<tr>
<td>1st per.</td>
<td>t/tomð3h{n</td>
</tr>
<tr>
<td>2d per.</td>
<td>t/tomð3dam</td>
</tr>
<tr>
<td>3d per.</td>
<td>t/tomð3xi</td>
</tr>
<tr>
<td>Plural:</td>
<td></td>
</tr>
<tr>
<td>1st per.</td>
<td>t/tomð3an</td>
</tr>
<tr>
<td>2d per.</td>
<td>t/tomð3anb{p'</td>
</tr>
</tbody>
</table>

1 Not to be confused with t/om{3zom't{p' YE ARE KILLING EACH OTHER!
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:

- **dümxi** he would kill me
- *döma'n* I should, could kill him
- *döm* 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:

- **dümxi**' he killed me
- *döma'n* I killed us
- *döm* he killed him
- **döma'n**'k' 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', -idaa, -it'baa); this -i- naturally replaces the ending of the object.

---

### Subjective

<table>
<thead>
<tr>
<th>Subjective</th>
<th>First person singular</th>
<th>Second person singular</th>
<th>Third person</th>
<th>First person plural</th>
<th>Second person plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st per.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd per.</td>
<td><em>düm</em>daé</td>
<td><em>dömzbin</em></td>
<td><em>döma'n</em></td>
<td><em>dözmazanban</em></td>
<td></td>
</tr>
<tr>
<td>3rd per.</td>
<td><em>düm</em>xi'k'</td>
<td>*dömzbin'k'</td>
<td>*döma'nak'</td>
<td>*dömzaman'k'</td>
<td></td>
</tr>
<tr>
<td>Plural:</td>
<td></td>
<td></td>
<td><em>döm</em>managam</td>
<td><em>döm</em>za'p'</td>
<td><em>döm</em>za'p'</td>
</tr>
<tr>
<td>1st per.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd per.</td>
<td><em>düm</em>da'aé</td>
<td><em>dömzabinagam</em></td>
<td><em>döm</em>managam</td>
<td><em>döm</em>za'p'</td>
<td><em>döm</em>za'p'</td>
</tr>
</tbody>
</table>

### Present Imperative

<table>
<thead>
<tr>
<th>Subjective</th>
<th>First person singular</th>
<th>Second person singular</th>
<th>Third person</th>
<th>First person plural</th>
<th>Second person plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd per.</td>
<td><em>düm</em>xi</td>
<td><em>dö'm</em></td>
<td><em>dömzam</em></td>
<td></td>
<td></td>
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<td>Plural:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1st per.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2nd per.</td>
<td><em>düm</em>xi'p'</td>
<td>*döma'nak'</td>
<td>*dömzam'p'</td>
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### Future Imperative

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<th>Subjective</th>
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<th>Third person</th>
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<th>Second person plural</th>
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<tbody>
<tr>
<td>Singular:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd per.</td>
<td><em>döm</em>agam</td>
<td>*döma'nak'</td>
<td><em>?</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
carries the umlaut of -am- to -im- with it, but -am- reappears when -i- drops out, cf. inferential dömxämklëit'. 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:

\[\text{naga'z} n \text{ I say to him 72.9, cf. naga' he said to him 92.24}\]
\[\text{sebe'n I shall roast it (44.6); future imperative odo'k' hunt for him! (116.7)}\]

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!omomad'zn, 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:

\[\text{ts!ayaga'z} n \text{ I shoot him (192.10), but wa-ts!ayagi'z} n \text{ I shoot (him) with it}\]
\[\text{i-lats!agi'i' you touched it}\]

§ 64
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'n I gave him to eat (30.12)
lâli'wi'n I call him by name (116.17)
löginini'n I trap them for him (and most other for-indirectives in -anan-)

Examples of -i-verbs with indirect object are:

ogoyi'n I gave it to him 180.11 (contrast oyonak'n I gave it [180.20])
wâgivi'k'n I brought it to him (176.17) (contrast wâga'k'n I brought it [162.13])

A number of verbs have -a- in the aorist, but -i- in all other tenses:

yâmiya'n I lend it to him, but yimi'hin I shall lend it to him
naga'k'n I said to him (second -a- part of stem) 72.9, but nâgi'n I shall say to him; nâgik' say to him! (future) 196.20; nâk'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:

xâ-pi'ti-nâ'k'wa'n 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:

xâ-lâ'tlan I shall put it about my waist, but xâ-lâ'tlin 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'n I told him (172.1)
wa-tomômhi he killed him with it

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I 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: ai-xS'k (inferential) HE SAW uns (*alxik!.k IlcE KILLED HIM), homonymous with al-xi'k (imperative) SEE mM! (*afxi'k/). As soon, however, as the verb becomes distinctly instrumental in force, the a- is a constant element: al-wa-xS'klik (inferential) lIE SAW IT WITH IT.

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It should be noted, however, that many verbs with characteristic -i- either may or regularly do leave out the final -'i:

\[ \text{alxi'k'} \text{ he saw him 124.6, 8 (cf. al-} x\text{'g}i'n I saw him, 188.11) \]
\[ \text{il-lats!a'k'} \text{ he touched him (cf. i-lats!agi'zn } I \text{ touched him) } \]
\[ \text{ba5-i-ye}w\text{a'n revive him! (15.2) (cf. ba5-i-yewe}ni'zn } I \text{ revived him) } \]
\[ \text{he}^e\text{-i-lele'\text{'k}} \text{ he let him go (13.6) (cf. he}^e\text{-i-lele'le}k!i'n I let him go} \]
\[ \text{he}^e\text{-i-lel'\text{'k}} \text{ let him go! 182.15 (cf. he}^e\text{-i-lel'k!in I shall let him go) } \]
\[ \text{ba-i-di-t'gaestgaasstick out your anus! 164.19; 166.6 (cf. ba-i-di-t'gats!a't'gis!i'n } I \text{ stuck out my anus [166.8]} \]
\[ \text{i-k!u}w\text{ma'n he prepared it 190.22 (cf. i-k!u}w\text{mini'zn I prepared it) } \]

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:

\[ \text{aorist ogoy- give to (ogorhi he gave it to him 156.20) } \]
\[ \text{aorist wetg- take away from (wet'gi he took it from him, 16.13) } \]
\[ \text{aorist lagag- feed (laga'ki he gave him to eat 30.12; lāk'i give him to eat! lāk'igana'k we seem to have given him to eat) } \]

and indirective verbs in -anan-. Irregularities of an unaccountable character occur. Thus we have:

\[ \text{he}^e\text{-i-hu he left him (cf. he}^e\text{-i-}w\text{ii'n I left him); but imperative he}^e\text{-i-}whi leave him! (not *-iwi', as we might expect) \]

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 i-) 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:

\[ ^1 \text{The -}i\text{- of these verbs regularly disappears, not only here but in every form in which the normal connecting vowel -a- fails to appear in other verbs: al-} x\text{'k'} (inferential) \text{HE SAW HIM (}al-} \text{lk'k' like döm'k' he killed him), homonymous with al-xi'k (imperative) see him! (=alxi'k'). As soon, however, as the verb becomes distinctly instrumental in force, the -}i\text{- is a constant element: al-} x\text{a}w\text{-}x\text{ift'k' (inferential) HE SAW IT WITH IT.} \]

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la-sī-t'ba'ak he burst it (cf. -t'ba'agizn I burst it)

[i-s'wili's'wal he tore it to pieces (cf. -s'wili's'wili'zn I tore it to

[i-s'wili's'wal tear it to pieces!

[i-s'wīl's'wa'l he tore it (once)

[i-heme'm he wrestled with him 22.10 (cf. -hememi'zn I wrestled

with him

despite the prefixed -i-; but:

la-waya-t'ba'ak'ī he burst it with a knife

han-waya-s'wīl's'wa'hi tear it through in pieces with a knife!

(73.3)

Similarly:

bā-sī-sgāk'sga'k' he picked him up 31.11 (cf. -sgāk'sgigizn I picked

him up)

but:

[kl'māa dan bā-sgāk'sga'k' 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 in-

strumentality, however, can hardly be the most fundamental func-

tion 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 indirect in character) the instrumental -i- (with

retained -hi) is employed. Thus:

ma'xla k'lūwā he threw dust

but:

ma'xla s'alklūwāhi dust he-threw-it-at-him (perhaps best trans-

lated 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'ošpx babat't'i wādi'xda ashes he-clapped-them-over his-body

(perhaps best rendered by: he-beclapped-his-body-with-ashes)

182.9

the logically direct object is k'ošpx, 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 con-

firmed 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:

\[\text{gel-yalâ'axalt'gwiit} \text{ he forgot himself 77.10 (cf. gel-yalâ'axal'i'în I forgot him)}\]

\[\text{ogoîk'wa he gave it to him 96.18 (cf. ogoîhi he gave it to him 188.12)}\]

It is possible that in wet'gigwa he took it from him the -gi- is a peculiar suffix not compounded of petrified -g- (see § 42, 6) and instrumental -i-; contrast i-tlana'hi he held it with i-tlana'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:

\[\text{gale wa-ts'ayagi'n bow I-with-shoot-it (cf. ts'ayaga'în I shoot him)}\]

\[\text{wa-ü'gwiî'n I drink with it (cf. ü'gwa'în I drink it)}\]

If, however, it is desired to keep the old object as well as the new instrumental object, a suffix -an- seems necessary. Thus:

\[\text{yap'la wa-sa'gininî'ê people they-will-be-shot-with-it}\]

\[\text{xi'i wa-ü'gwinî'ê'în water I-drink-it-with-it}\]

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 +aspirated surd:

\[\text{he-ü-î-le'mek'î'î he killed them off, but-le'mek'hî'ê'n I killed them off}\]

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:

\[\text{wa-woo'hin I shall go to get it with it (contrast woo'n I shall go to get it)}\]

\[\text{i-tlana'hi'în I hold it; i-tlana'hi he holds it 27.4}\]

\[\text{di-s'al-yomo'hi'în I shall run behind and catch up with him; di-s'al-yomo'hi catch up with him! (contrast yomo'n I shall catch up with him)}\]

\[\text{wa-sana'hink'î they will spear them with them 28.15 (verb-stem sana-)}\]

A constant -a- used to support a preceding consonant combination is, in -i- verbs, colored to -i-:

\[\text{ü-lasgi'î touch him! (cf. masga' put it! [104.8])}\]

§ 65
§ 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 en-i', § 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 -m-i', -n-i', -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 dä-s-yehë'it YOU GO WHERE THERE IS SINGING and dä-s-yehën (with passive -n) IT WAS GONE WHERE THERE WAS SINGING (from *yehë'tn) can be explained by a simple consideration of syllabic

<table>
<thead>
<tr>
<th></th>
<th>Aorist</th>
<th>Future</th>
<th>Potential</th>
<th>Inferential</th>
<th>Present imperative</th>
<th>Future imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>t’omomi'n</td>
<td>dö-mi'n</td>
<td>dö-mi'n</td>
<td>dö-mhi'at</td>
<td>döml</td>
<td>döml'k'</td>
</tr>
<tr>
<td>Second person</td>
<td>t’omomi’t</td>
<td>dö-mi'da't</td>
<td>dö-mi't</td>
<td>dö-mhi'at't</td>
<td>döml</td>
<td>döml'k'</td>
</tr>
<tr>
<td>Third person</td>
<td>t’omööhi</td>
<td>dö-mi'n'k</td>
<td>döml</td>
<td>döml'k'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plural:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>t’omomina’k</td>
<td>dö-mi’naga’m</td>
<td>dö-mi’nak'</td>
<td>dö-mhi’gana’k</td>
<td>döml</td>
<td>döml’b’</td>
</tr>
<tr>
<td>Second person</td>
<td>t’omom’i’p</td>
<td>dö-mi’t’ba’</td>
<td>dö-mi’t’p</td>
<td>dö-mhi’k’k’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

§ 65. Forms Without Connecting Vowel
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 (-en) stands in sharp contrast to the corresponding form of the great mass of transitive verbs (-en). 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!adâ’na‘k’ and k!adân like k!adân). Examples of transitives with aorist stems ending in long diphthongs not followed by connective -a- are:

<table>
<thead>
<tr>
<th>Transitive Stem</th>
<th>Meaning</th>
<th>Aorist Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>t’gwaxân</td>
<td>I tattoo him</td>
<td>t’gwaxâ’n</td>
<td>you tattoo him</td>
</tr>
<tr>
<td>dî-tâgû’n</td>
<td>I wear it</td>
<td>dî-tâgûî</td>
<td>he wears it</td>
</tr>
<tr>
<td>dâa-yehë’n</td>
<td>I go where there is singing</td>
<td>dâa-yehë’t</td>
<td>you go where there is singing</td>
</tr>
<tr>
<td>dâa-yehë’ni</td>
<td>(third person passive)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>swadân</td>
<td>(passive) they got beaten in gambling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>oyo’n</td>
<td>I give it (= * oyo’n)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>but also oyo’n with connecting -a-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k!emë’n</td>
<td>I did it 74.13</td>
<td>k!emë’î</td>
<td>he did it 92.22; 144.6; 176.1, 4, 5, 7, 8, 9, 14</td>
</tr>
</tbody>
</table>

In aorist k!emë’- make the -i-, actually or impliedly, appears only when the object is of the third person (singular first, k!emë’n; second, k!emë’t; third, k!emë’t; plural first, k!emë’na‘k’; second, k!emë’t’), all other aoristic and all non-aoristic forms replace the -i- by a -n-:

- k!emë’ni make you 27.9
- k!emë’na’n 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-

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1 It may be noted in passing that the Takelma reduction of an over-long diphthong (en to em) 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 *dehse = Skr. dharma, Gk. Δημα, with preserved -e- because followed by -s, a consonant not capable of entering into diphthongal combination; but Indo-Germanic ace. *dehse = Ved. Skr. dhem, Ham. Gk. Δημο with lost -e- 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 yehë’t is, as in dhem, 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:

\[
\begin{align*}
\text{heme'ha}^n & \text{ I mocked him (=} heme'ham \text{ he mocked him} \\
\text{-ham}^n & \text{ 24.4, 5, 8; 182.6, 7} \\
\text{imi'ha}^n & \text{ I sent him (=} -am^n) \text{ 4im'ham}^n \text{ I was sent (43.2)} \\
\text{gel-hewe'ha}^n & \text{ I think (=} -au^n) \text{ gel-hewe'hau he thought 44.11; } \\
\text{gel-hewe'hat} & \text{ you think 142.20} \\
p'la-i-diz\text{-sgimi'sga}^n & \text{ I set them (=} p'la-i-diz\text{-sgimi'sgam} \text{ he set} \\
\text{in ground (=} -am^n) & \text{ them in ground} \\
\text{bä-} & \text{al-mol'om}^n \text{I turned them (=} bä-} \text{al-mol'omal he turned} \\
\text{ma} & \text{over (=} -a}^n \text{ them over (170.16)} \\
\text{sänsa}^n & \text{I fight him (=} -a}^n \text{ sänsa}^n \text{ he fights him (28.10)} \\
\text{ma} & \text{nma}^n \text{ I count them (=} da-ma}^n \text{mnini}^n \text{ I count them} \\
\text{ (=} & \text{up (156.14) (but also mãn= mánm he counted them} \\
\text{=} & \text{78.8; 100.8)} \\
\end{align*}
\]

How explain the genesis of these two sets of contract verb forms,
and how explain the existence of doublets like mo'lo'mal' and mo'-
lo'mal'\text{n, mo'lo'ma}t' and mo'lo'ma}t', oyö^n and oyona}t', sänsa}n
and sän\text{s?} 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 \hspace{1cm} oyö^n \hspace{1cm} mo'lo'mal'n
Second person \hspace{1cm} oyona}t' \hspace{1cm} mo'lo'ma}t'
Third person \hspace{1cm} oyö'n \hspace{1cm} mo'lo'mal

which were then leveled out to:

\[
\begin{align*}
oyona}t' & \hspace{1cm} mo'lo'mal'n \\
oyona}t' & \hspace{1cm} mo'lo'ma}t' \\
oyö'n & \hspace{1cm} mo'lo'mal
\end{align*}
\]

because of the analogy of a vast number of verbs with connecting
-a- in both first and second persons, e. g., tsalayaga}t'n, tsalayaga}t'.
Forms like mo'lo'ma}t', sänsa}t', would arise from leveling to the first

1 This verb is transitive only in form, intransitive in meaning. The true transitive (\text{thINK or employs}
the full stem \text{hewe'hau} with connective -i for third personal object, and -s for other objects: gel-hewe'hau'\text{n I THINK of him; gel-hewe'hau'sdam you THINK of ME.}

2 The stem \text{sgimi'sgam} is interesting as a test case of these contract verb forms. The stem must be
\text{sgimi'sgam}; it cannot be \text{sgimi-ga}, as \text{g} could hardly be treated as a repeated initial consonant. No cases
are known of initial consonant clusters treated as phonetic units.

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person by the analogy of such forms as tlomoma'tn, tlomoma'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., sãns beside sã'snsa'n), as well as to the third person passive and first person plural subject transitive. Such forms as oyö'n 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'èn, not *gayà'n from *gayauèn). 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'-èn I SAY TO HIM and wa-k!oyö-èn I GO WITH HIM,1 non-aorist forms of Type 5 verbs (e. g., odo'-èn), and such isolated irregularities as intransitive e1-t and naga-t (contrast yevey-a't and t'agaya't) and transitive contract verbs like k!adã'n and sãansa'èn.

§ 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)na5 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 dö'm-, instrumental forms being put in parentheses:

<table>
<thead>
<tr>
<th></th>
<th>Aorist</th>
<th>Future</th>
<th>Potential</th>
<th>Inferential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>t'umûzin</td>
<td>dûmzina5</td>
<td>dûmzin</td>
<td>dûmzipam</td>
</tr>
<tr>
<td>Second person</td>
<td>tîmûzbin</td>
<td>dûmaîna5</td>
<td>dûma'n</td>
<td>dûmzipam</td>
</tr>
<tr>
<td>Third person</td>
<td>tlomoma'n (tlomom'ìn)</td>
<td>dûma'n (dûmmina')</td>
<td>dûma'n</td>
<td>dûmkipam</td>
</tr>
<tr>
<td>Plural:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>tîmûzin</td>
<td>dûmzina5</td>
<td>dûmzin</td>
<td>dûmzamp'ìn</td>
</tr>
<tr>
<td>Second person</td>
<td>tîmûzban</td>
<td>dûmzina5</td>
<td>dûmzin</td>
<td>dûmzîmp'ìn</td>
</tr>
</tbody>
</table>

1Some 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 t'lana- HOLD; the constant -a- or -i- of forms like t'lana'hagwa, t'lense'hi-s'dam is perhaps due to the analogy of the instrumental -i- of forms like t'lana'hà'n.

§ 66
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 klemë'n) remains unchanged:

\[ \text{I caught him} \quad \text{he was caught} \]
\[ \text{I said to him} \quad \text{he was spoken to} \]
\[ \text{I made it} \quad \text{it was made} \]

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:

\[ \text{he was dug-up their-own-horns (not his-own-horns) with (in other words, they dug him up with their own horns)} \]

There is no real way of expressing the agent of a passive construction. The commonest method is to use a periphrasis with xebe'n he did so. Thus:

\[ \text{the canoe was kicked to pieces by the deer} \]

§ 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 intransitive 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', plural

§ 67
The -n- appears only in the first person singular and plural (aorist -na'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:

\[
\begin{align*}
\text{gwen-sgut'u'sgat'na'n} & \text{ I cut necks} \\
\text{gwen-sgut'u'sgat'he} & \text{he cut necks (cf. transitive instrumentals} \\
\text{gwen-waya-sgut'u'sgidi'n, gwen-waya-sgut'u'sgati} & \text{144.3)} \\
\text{da-bok'loba'k'na'n} & \text{I make bubbles (or da-bok'lo'p'na'n 102.22)} \\
\text{da-bok'o'p'dam} & \text{you make bubbles} \\
\text{bôd-xada'z'na'n} & \text{I hang them up in row} \\
\text{lobola'p'na'n} & \text{I used to pound them (57.14) (or lobo'lp'na'n)} \\
\text{lobo'lp'dam} & \text{you used to pound them} \\
\text{i-layâ'ak'na'n} & \text{I coil a basket 122.2} \\
\text{i-layâ'ak'} & \text{she coils a basket} \\
\text{k'ada'k'lat'na'n} & \text{I used to pick them up (116.11)} \\
\text{da-daga'da'k'na'n} & \text{I sharpen my teeth (126.18)} \\
\text{ugâ'ak'na'n} & \text{I always drink it} \\
\text{wagaok'na'n} & \text{I always bring it 43.16; 45.6)}
\end{align*}
\]

Morphologically identical with these, yet with no trace of transitive signification, are:

\[
\begin{align*}
\text{i-hegwe'hak'w'na'n} & \text{I am working} \\
\text{xa-heg'ke'k'na'n} & \text{I breathe (78.12; 79.1, 2, 4)} \\
\text{xa-hak'w'na'n} & \text{(third person xa-huk'w'k'')} \\
\text{al-t'wapi't'wapi'na'n} & \text{I blink with my eyes 102.20} \\
\text{al-t'wapi't'wapi'dam} & \text{you blink with your eyes}
\end{align*}
\]

The following forms of i-hegwehaqw- (verb-stem i-hegwaghagw- [ = -hegwaghagw-]) work will serve to illustrate the -n- formation:

<table>
<thead>
<tr>
<th>Singular:</th>
<th>Aorist</th>
<th>Future</th>
<th>Inferential</th>
<th>Present Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st per.</td>
<td>hegwe'hak'w'na'n</td>
<td>hegwa'k'w'maan</td>
<td>hegwa'k'w'na'k (=-kw'= k'at')</td>
<td>-kw'wak'</td>
</tr>
<tr>
<td>2d per.</td>
<td>hegwe'hak'w'dam</td>
<td>hegwa'k'w'dâ'</td>
<td>-kw'wél'</td>
<td>-kw'wak'</td>
</tr>
<tr>
<td>3d per.</td>
<td>hegwe'hak'w</td>
<td>hegwa'k'w'</td>
<td>-kw'w'</td>
<td>-kw'wak'</td>
</tr>
<tr>
<td>Plural:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st per.</td>
<td>hegwe'hak'w'nana'k'</td>
<td>hegwa'k'w'manâ'am</td>
<td>hegwa'k'w'anâ'k'</td>
<td>-kw'wâba'</td>
</tr>
<tr>
<td>2d per.</td>
<td>hegwe'hak'w'dap'</td>
<td>hegwa'k'w'dâ'p'</td>
<td>hegwa'k'w'é'l'p'</td>
<td>-kw'w'éla'n'p'</td>
</tr>
</tbody>
</table>

2. Practically a sub-group of the preceding set of verbs is formed by a very few verbs that have their aorist like i-hegwe'hak'w'na'n, § 67
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:

\[
\begin{align*}
\text{di-ka'la'sna'n} & \quad \text{future } \text{di-ka'la'side}^e \\
\text{di-ka'la'sde'} & \quad \text{I am lean in my rump} \\
\text{di-ka'la'sdam} & \quad \text{future } \text{di-ka'la'sida}^e \\
\text{gwel-sal-te'yesna'n} & \quad \text{future-te'iside}^e \\
\text{no flesh on my legs and feet}
\end{align*}
\]

It may be observed that the existence of a form like *gwel-sal-tlet-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:

\[
\begin{align*}
\text{da'a-sgekt'ya'ni} & \quad \text{I listened : future } \text{da'a-sge'k'it'ee} \\
\text{da'a-sgekt'ya't} & \quad \text{you listened} \\
\text{da'a-sgekt'i} & \quad \text{he listened 102.8} \\
\text{al-we'k'ala'sn} & \quad \text{I shine : future } \text{al-we'k'alt'ee} \\
\text{al-we'k'ala'st} & \quad \text{you shine} \\
\text{al-we'k'ala'na'k'we} & \quad \text{we shine : future } \text{al-we'k'alp'igam} \\
\text{al-geyana'ni} & \quad \text{I turn away : future } \text{al-geyande} \\
\text{my face} \\
\text{da-smayama'ni} & \quad \text{I smile : future } \text{da-sm-a-ima'sde}^e \\
\text{da-smaya'ni} & \quad \text{he smiles} \\
\text{da-smayamana'k'we} & \quad \text{we smile}
\end{align*}
\]

To these should probably be added also da-sgayana'ni I lie down (3d da-sgayan), though no future was obtained. Here again it may be noted that the existence of *da-sm-a-ima'n as a possible (and indeed to be expected) future of da-smayama'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-taliga'n WE ARE SEATED (50.2; 150.20); passive al-taliga'n PEOPLE ARE SEATED 152.18. Similar is sal-xogwi THEY STAND; cf. also gel-isewe'lo 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.

§ 67
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"- 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"-) 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"- suffix is identical with the form it takes in the inferential. Thus:

\[ \text{ba-i-he'nc'uluk'w} \] he will take it out (cf. inferential ba-i-he'ma'k' = -hemg-k'), but imperative ba-i-he'mlk' 16.10

but, without inorganic a:

\[ \text{i-hemguluk'w} \] he will wrestle with him (cf. inferential hemlk')

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"- to form g or k'. This seems to be proved by the form:

\[ \text{loho'k'-di-gulugwa't} \] do you intend to die? (\( \text{di} = \text{interrogative particle} \))

Morphologically the verb-stem with its incorporated object must itself be considered as a verb-noun incorporated as a prefix in the verb -gulug"- and replacing the prefix gel- BREAST of gel-gulugwa'n I DESIRE IT 32.5, 6, 7. Alongside, e. g., of the ordinary future form döma'n I SHALL KILL HIM may be used the periphrastic dö'nm-gulugwa'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 dö'nia' gel-gulugwa'n [= TO-KILL-HIM I-IT-DESIRE]), but a purely formal future. Similarly, dümxi-gulu'k'w is used alongside of the simpler dümxi'k' 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 here-fore given:

\[ \text{yana'-k'ulu'k'w} \] he will go (128.9)
\[ \text{sana'p-gulu'k'w} \] he will fight (cf. 48.10)
\[ \text{yomo'kwagulu'lcw} \] she was about to catch up with him 140.18
\[ \text{alxiexbi_gulu'k'w} \] he will see you
The reason is obvious. The normal futures (yana't' he will go; sana'p'gā'; aksi'xhink') 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 intuitive 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 (= dō'mama'n) and I'm going to kill him (dō'm-gulugwa't'n).

Though a form like dōmxi-guluk' known as will kill me is in a way analogous to sin-im-le's'xi he touches my nose, the incorporated object dōmxi-kill-me of the former being parallel to sin-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 (dō'm-), not formally (-gulug'-), main verb. This difference may be graphically expressed as follows: he-[kill-me]-intends-it, but he-[nose-hand]-touched-me; strict analogy with the latter form would require *dō'm-guluk'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 dōmxi-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)na't:

- dō'm-gulugwa'n he will, is about to, is going to be killed
- dōmxi-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
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'egiaugulugwa'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:

i-di-lasgi'xant'p'-gulugwa't'p' are you going to touch one another? (aorist i-lats!a'xamt'p'; future i-lasgi'xant'ba5)

§ 69. PERIPHRASTIC PHRASES IN na(g)- DO, ACT

The verbal base na(g)1 (intransitive na-; transitive nāg-y-) 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) (=yanat'ce [ga] naga'ce [or nege's'i]) is rendered in Takelma by I SHALL GO (THAT) HE DID (OR HE DID TO ME), in which the quotation yanat'ce 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 lq'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° do (cf. na't'e° I shall say, do)
- s'as' come to a stand (cf. s'as'int he stands 144.14)
- s'il paddle canoe (cf. e-ba-i-s'il'xgwa he landed with his canoe 13.5)
- t'geI° fall, drop
- ts'el rattle (cf. ts'elezm it rattles 102.13)
- t'bo'ux make a racket (cf. t'bo'xde° I make a noise)
- livâ° look (cf. livila'ut'ê° I looked [60.7])
- le'yas lame (cf. qwel-le'ye'sde° I am lame)
- p'iv was jumping lightly (cf. p'iwits!ana'z°n I make it bounce)
- we'kelk' shining (cf. al-we'kelala'z°n I shine)
- sgala'uk' look moving one's head to side (cf. al-sgalawi'z°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'kel-p'-k' (Class IV, 3) he shone

Most frequently employed of those listed is na°, 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-nâk'i say that to him! 55.8, but ga-na°nâk'i do that to him! 182.4; 184.4
- ga-naga'z° he said that 72.12, but ga-na°naga'z° he did that 58.3
- gwalt' a-na°nâ't° the wind will blow as it is blowing now (literally, wind [gwalt'] this [a-]do [na°]-act-will [na't°]) (152.8)
- ga-na°ne'z thus, in that way (literally, that do-acting, doing) 71.6; 110.21; but ga-ne'z that saying, to say that 184.10

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Examples of the other elements are:

- **ei-s'il-naga'** he paddled his canoe (literally, he canoe-paddle-did) 13.5
- **s'as'-naga'** he came to a stand 22.6; 31.14, 15; 55.12; 96.23
- **s'as'-na'gi'n** I shall bring him to a halt (literally, I shall s'as'-do to him)
- **liwâ'-naga'lt'** I looked (55.6; 78.10, 13; 79.5)
- **t'gel'-naga'lt'** I fell, dropped down
- **t'gel' naga'lt'n** he always fell down 62.8
- **tsle'l naga'lt** (bones) rattled (literally, they did tsle'l) 79.8
- **t'bô'u'x naga'** they made a racket so as to be heard by them 192.9
- **we'k'talk'-naga'lt** he shines
- **sgala'uk'-naganâ'lt'** he looked continually moving his head from side to side 144.14, 17
- **gvelxdâ a le'yas-na'k'** his leg was laming 160.17
- **p'iv'was-naga'lt** 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'lt** they passed over it (literally, thereon they did) 190.21
- **ganau-nagana'k'** he went from one (trap) to another (literally, therein he kept doing) 78.5
- **hawi-nâk'i** tell him to wait! (literally, still do to him!)
- **hagwâl'ha'm** (in the road) -naga'lt (he did) (= he traveled in the road)
- **haxiya'** (in the water) -naga'lt (= he went by water)
- **dak'-s'im't'da** (over his nose) -nâbâ'le'ha'n (let us do) (= let us [flock of crows] pass over him!) 144.11
- **da'k'dâ'lda** (over him) -na'u (do!) (= pass over him!)
- **dac'ya'wadé** (over my ribs) -naga'lt (= he passed by me)
- **ge** (there) -naga'lt (= they passed there) 144.18
- **he'et-wila'mxa-hi** (beyond Mount Wila'mxa) -nâk'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'lt** he come-to-a-stand-did, like *ge naga'lt* 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-gongwu'** *I COME IN A CANOE* (literally, I-CANOE-PADDLING-GO-HAVING).

§ 69
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 klem-make and nāqg-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' klemma't do not let him arrive! (literally, not arrive make-him!)

wo'k' klemmana'nxî let me come! (literally, arrive make-me!)

gwel-leis klemma'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 klem-en- are quite similar morphologically to periphrastic futures in -gulu-, the main point of difference being that, while klem-en- occurs as independent verb, -gulu- is never found without a prefix. The forms involving nāqg- 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'yas (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' (-t'a'), serving to subordinate the active forms of the aorist.

- ma', subordinating those of the passive aorist.

- na', subordinating all inferential forms in -k'. Periphrastic inferential forms in eit' and eit'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'â' (-qi'), 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 -daε- forms of an intransitive verb like hōgʷ- RUN are:

**Singular:**

<table>
<thead>
<tr>
<th></th>
<th>Independent</th>
<th>Subordinate</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>hök' deε I run</td>
<td>hök' deε daε when I ran,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I running</td>
</tr>
<tr>
<td>Second person</td>
<td>högwadε</td>
<td>högwadε</td>
</tr>
<tr>
<td>Third person</td>
<td>hök'daε</td>
<td></td>
</tr>
</tbody>
</table>

**Plural:**

|                |                  |                           |
| First person   | högwi'k'         | högwigam                  |
| Second person  | högwadε          | högwadε'baε               |
| Impersonal     | högwiadε          | högwiadε'udaε             |

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 (alxi'xam hōgwiga'm HE SAW US RUN, like alxi'xam hōk'deε daε 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 hōgwiga'm WE SHALL RUN with short o). No form in iFkdae, such as might perhaps be expected, was found. The catch of the first and third person singular of class I verbs disappears before the -daε (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'daε         | when he went   | 58.8 (yaε he went 96.8); cf. 188.17 |
| ba-i-kliyit'k' daε | when he came  | (ba-i-kliyit'k' he came 156.24) |
| yawa'idaε       | as they were   | 130.13 (yawa'ε they talked)  |
| xebendaε        | when he did    | 142.10 (xebed'εn he did so 118.14) |

The subordinate form of the third person aorist of class II intransitives ends in -t'aε if the immediately preceding vowel has a rising accent. Thus:

- s'as'int'aε when he stood (s'as'int he stood 120.12)
- loplot'aε when it rained (loplot'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'baε is not improbably simply formed on the analogy of the corresponding singular form in -daε, the normal difference

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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

---

### Table:  

<table>
<thead>
<tr>
<th>Subjective</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First person singular</td>
</tr>
</tbody>
</table>

#### Singular:

- 1st person:  
  - Singular: t'omôšðiña's (t'omôšði'ni)  
  - Plural: t'omôšðiña'k' (t'omôšði'ni'k')

- 2nd person:  
  - Singular: t'omôšðiñap (t'omôšði'nap)  
  - Plural: t'omôšðiñap (t'omôšði'nap)

- 3rd person:  
  - Singular: t'omôšðiña' (t'omôšði'ni)  
  - Plural: t'omôšðiña' (t'omôšði'ni)

#### Plural:

- 1st person:  
  - Singular: t'omôšðiña' (t'omôšði'ni)  
  - Plural: t'omôšðiña' (t'omôšði'ni)

- 2nd person:  
  - Singular: t'omôšðiña' (t'omôšði'ni)  
  - Plural: t'omôšðiña' (t'omôšði'ni)

---

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:

\[\text{aga’hi ligigwanaga’m} \text{ just-these which-we-brought-home 134.18;}\]

contrast \[\text{li’gwanaga’m} \text{ we shall bring them home}\]

\[\text{yne’ xebeyaqwanaga’m} \text{ if we should slay him (literally, perhaps that-we-slay-him) 136.23;}\]

contrast \[\text{xe’bagwanaga’m} \text{ we shall slay him}\]

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:

\[\text{al-xi’xzbina’s} \text{ when he saw you, but al-xi’xzbina’s} \text{ you will be seen}\]

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’s. Thus:

\[\text{gel-hewe’hana’s} \text{ when he thought 45.2; 142.10, 13, 16 (cf. gel-hewe’hana’ I thought); but gel-hewe’hau he thought 44.11}\]

The subordinate of the form with personal object -k’wa is formed by adding -na’s:

\[\text{malâk’wana’s} \text{ when he told him 72.14 (malâk’wa he told him 142.4)}\]

The aorist passive subordinates cause no trouble whatever, the characteristic -ma’s being in every case simply appended to the final -n of the passive form:

\[\text{t’omoma’nma’s} \text{ when he was killed 146.22 (from t’omoma’n he was killed 148.3)}\]

\[\text{t’omòxanbanma’s} \text{ when you (plural) were killed}\]

The complete subordinate inferential paradigm is rather motley in appearance; -na’s is suffixed to the third personal subject in -k’:

\[\text{plâk’na’s} \text{ when he bathed}\]

\[\text{labâk’na’s} \text{ when he carried it 126.5}\]

\[\text{gatik’na’s} \text{ when he ate it}\]

\[\text{dòmxik’na’s} \text{ when he killed me}\]

The first person singular in -k’a’s(n) becomes -k’anda’s; 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’s:

\[\text{gatik’amna’s} \text{ when it was eaten}\]

\[\text{dòmxamk’amna’s} \text{ when we were killed}\]

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The periphrastic forms in eIt' and eIt'p' become -k' + eida'z and eIt'ba'z in the subordinate; e. g., wāŋhi'mtk'l'aida'z when you answered him. The active inferential subordinates of dōw'm- with third personal object thus are:

Singular:
First person, dōmk'anda'z
Second person, dōwmk'eida'z

Plural:
First person, dōmk'anaga'm
Second person, dōwmk'eit'ba'z
Third person, dōmk'na'z; personal, dōmk'wak'na'z
Impersonal dōwmiwak'na'z

The subordinating element -na'z also makes a subordinate clause out of a -t' participle (see §76):

\[ \text{gwi na't'na'z ga'z aldī naga'n how-he-looked (gwi na't' how-looking) that all he-was-called 60.5; (cf. 78.3)} \]
\[ \text{yapīa ga na't'na'z that number of people 110.15} \]

Also adjectives and local phrases may be turned into subordinate clauses by the suffixing of -na'z:

\[ \text{xilam-na'z when she was sick 188.10} \]
\[ \text{aga dōmk' gwelda-na'z-this log under-it when (=while he was under this log) 190.20} \]

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:

\[ \text{ts'olx (1) ul's'i (2) tūmāxda'z (3) give me (2) dentalia (1), for you have struck me (3) (cf. 15.8)} \]
\[ \text{a'nvē'z (1) gel-gūlūxi (2) gayawa'nda'z (3) he does not (1) like me (2), because I ate it (3)} \]

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gēxde (1) gayawana (2) goyo (3) yapla (4) ald (5) he-i-leme'k'it (6) you killed off (6) all (5) the people (4), because shamans (3) ate (2) your wife (1) 146.11
a'nē (1) ya (2) ēkde (3) mē-wōk'de'da (4) ga'a'l (5) he did not (1) go (2), because I (3) came (4); ga'a'l (on account of, for) is employed to render preceding subordinate unambiguously causal
a'nē (1) s'in-hōk'wal (2) yūk'na (3) ga (4) ga'al (5) shēn (6) xa'm-hī (7) lāp'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:
hō-z-yewwē (1) ald (2) t'loma'nma (3) they all (2) returned far off (1), after (many of them) had been slain (3) 146.22
gōyo (1) gel-lohōigwa'nma (2) when shamans (1) are avenged (2) 148.2
ba-i-ktiγšk' (1) p'im (2) gayawa'nda (3) he came (1) when I was eating (3) salmon (2)
al-xi'gim (1) gwine (2) yā'da (3) I saw him (1) when (2) he went (3)

Relative clauses of one kind and another, including indirect questions, are illustrated in:
a'nē (1) nek (2) yok'oya'n (3) lege'xina (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'n (1) nek (2) laga'ximina (3) I know (1) who (2) gave us to eat (3)
mān (1) mī'zal (2) hā-lohō'nana (3) he counted (1) how many (2) he had trapped (3) 100.8
a'm (1) yok'ōh (2) gwī (3) ginyaqwa'nma (4) he did not (1) know (2) where (3) she had been taken to (4) 13.12
gā'hi (1) d'ak' (2) dī-tūγīt (3) wa-k'odōdī'nma (4) they wore (3) the same (1) garments (2) with which they had been buried (4) 96.16
ɡē (1) na'nagait' e-da (2) na'nak' (3) do (future imperative) (3) what I (1) am doing (2)
i-k'we'xi (1) ulum (2) waśk'anda (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 (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 § 70
verb of saying, such as \( na(g) \)-, it is nearly always necessary to report the exact words of the speaker.

\[
\begin{align*}
al-xi'gin (1) & xebeyigi'1cwanae (2) I saw him (1) hurt him (2) 
yok!oya^z(1) & p'im (2) gatk'nae (3) I know (1) that he has been eating (3) salmon (2) (literally, I-know-him salmon he-having-eaten) 
al-xi'xi (1) & tlom\=oxanbandae (2) he saw me (1) strike you (pl.) (2) 
al-xi'gin (1) & dal-yewe'idae (2) I saw him (1) run away (2)
\end{align*}
\]

Not infrequently an adverb is to be considered the main predicate, particularly when supported by the unanalyzable but probably verbal form \( wala^zsi(\text{na}^z) \), 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:

\[
\begin{align*}
eme (1) & wala^zsi (2) eit'e"dae (3) I am (3) right (2) here (1)  
(\text{literally, here it is really [?] that-I-am}) 
eme (1) & wala^zsi (2) eida' (3) you are (3) right (2) here (1) 
mii (1) & wala^zsi (2) i-\=k\=umanana'nhik'nae (3) he had already fixed it for him (literally, already (1) it-was-really (2) that-he-had-fixed-it-for-him (3))
\end{align*}
\]

Examples of subordinatates depending on predicatively used adverbs without \( wala^zsi \) are:

\[
\begin{align*}
a'nii (1) & wan\=a (2) eme (3) n\=e'idae (4) \text{[it is]} \text{not (1) even (2) here (3) that they did (4) (probably=} \text{even they did not get here}) 
hopi'te'^z (1) & pl\=a'as (2) h\=e's (3) lop\=ot'a (4) \text{it used to snow long ago (long ago [1] that snow [2] almost [3] stormed [4])} 
alit (1) & he\=e\=-i-lene'ki'inda (2) \text{[it is]} right here (1) that I destroy them (2) 108.20
\end{align*}
\]

An example of a subordinate depending on a demonstrative pronoun is:

\[
\begin{align*}
\=daga (1) & yapla (2) s\=as'ini'\=t'a (3) \text{that man is standing (literally, [it is] that [1] man [2] that is standing [3])}
\end{align*}
\]

The form \( wala^zsi\=na^z \) is in all probability a third personal aorist transitive subordinate form in \( -na^z \), 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 \( ei^- \):

\[
\begin{align*}
eme (1) & wala^zsi\=na (2) \=a'kla (3) \text{he (3) is right (2) here (1) (literally, something like: [it is] here that-it-really-is he)} 
ge (1) & wala^zsi\=na (2) \text{he is over there (literally, [it is] there [1] that-he-really-is [2])}
\end{align*}
\]
Most astonishing is the use of *wala'z-s'ina* 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-hâlsbi* HE ANSWERED YOU, is formed the emphatic *dak'-da-wala'z-s'ina*hâlsbina* 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'z-s'ina* is syntactically dependent, the main verb -hâlsbina 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'iz* (-gi*) 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 -gulug*-. The phonetic and to some extent psychologic similarity between the inferential (e. g., *dâmxik* HE EVIDENTLY STRUCK ME) and the conditional (e. g., *dâmxigi* IF HE STRIKES, HAD STRUCK ME) makes it not improbable that the latter is a derivative in -iz* 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'iz* ett'e
- Second person, *yana'k'iz* ett'
- Third person, *yana'k'iz*

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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:

\[
yok!oya't*n (1) nek' (2) läxbigi' (3) I know (1) who (2) will give you to eat (3)
\]

\[
dewe'nxa (1) al-ix'k!in (2) gwit-ne (3) yana'k'iz (4) I shall see him (2) to-morrow (1), when (3) he goes (4)
\]

\[
al-ci'xink' (1) gwit-ne (2) yana'k'iz eit'et' (3) he will see me (1) when (2) I go (3)
\]

\[
gwen-tgaa-bo'k'danda (1) tsot'itiligiz (2) yā' (3) hezne (4) yā' (5) xe'bagwa'n (6) just (3) when they touch (2) the eastern extremity of the earth (1), just (5) then (4) I shall destroy them (6) 144.15
\]

It has a comparative signification (as though) in:

\[
p!i' (1) de-gi'k'alxgiz (2) na'naga'iz (3) it was (3) as though fire (1) were glowing (2) 142.1
\]

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:

\[
ga (1) na'naš-k'iz eit' (2) haxada'iz (3) if you do (2) that (1), you'll get burnt (3)
\]

\[
āk' (1) yana'k'iz (2) gī (3) hono (4) yana't'ez (5) if he (1) goes (2), I (3) go (5) too (4)
\]

\[
wede (1) yana'k'iz (2) gī (3) hono (4) wede (5) yana'k'oz (6) if he does not (1) go (2), I (3) won't (5) go (6) either (4)
\]

\[
gwalt' (1) mañai (2) wο'k'iz (3) ga (4) nā'gī'k' (5) if a great (2) wind (1) arrives (3), say (5) that! (4) 196.19
\]

\[1\text{Just when } = \text{ AS SOON AS.}\]
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:

\[ \text{aga (1) } x\ddot{a}^{2}-sg\ddot{a}^{2}\text{sgi}^{2} \text{ (2) } ga \text{ (3) } loho't'e^{e} \text{ (4) if this (1) string parts (2), in that case (3) I shall be dead (4) 59.10, (11)} \]

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. Examples of such general conditions are:

\[ \text{wi'lau (1) klemninyal}^{k} \text{qi}^{2} \text{ (2) wa-t'ba}^{9} \text{gamdina}^{e} \text{ (3) whenever people will make (2) arrows (1), they (arrows) will be backed (literally, tied) with it (3) (with sinew) 28.2}\]

\[ \text{w}^{a}a^{2}t^{2}^{2} \text{ (1) } d^{2} \text{ (2) ba-i-gin}^{k} \text{wi}^{2} \text{ (3) } \text{goyo}^{1} \text{ (4) } \text{he}^{9} \text{ne} \text{ (5) } d^{9} \text{ma}^{9} \text{ma}^{9} \text{ (6) whenever a shaman (4) goes out with (3) one whose body (1) is good (2), then (5) he shall be slain (6) 146.6}\]

\[ \text{goyo (1) } \text{gel-lohoga}^{2} \text{wi}^{2} \text{qi}^{2} \text{ (2) he}^{9} \text{ne} \text{ (3) } \text{ya}^{9} \text{as}^{a} \text{qi}^{2} \text{ (4) } \text{yap}^{1} \text{a} \text{ (5) } \text{gama}^{d} \text{qi}^{2} \text{ (6) } \text{pi}^{2} \text{et}^{2} \text{ (7) whenever one takes vengeance for (2) a shaman (1), just (4) then (3) ordinary (6) people (5) will lie (7) (i.e., be slain) 146.8}\]

\[ \text{wedeka} \text{ (1) homo}^{9} \text{ (2) } \text{ne}^{9} \text{k}^{9} \text{ (3) al-x}^{9} \text{k}^{9} \text{k}^{9} \text{wak}^{9} \text{ (4) } \text{yap}^{1} \text{a} \text{ (5) } \text{loho}^{9} \text{k}^{9} \text{qi}^{2} \text{ (6) no (1) one (3) will see him (4) again (2), when a person (5) dies (6) 98.10}\]

\[ \text{gama}^{9} \text{nek}^{9} \text{x} \text{ (1) yo}^{9} \text{et}^{2} \text{ (2) } \text{yap}^{1} \text{a} \text{ (3) } \text{gani}^{9} \text{qi}^{2} \text{ (4) thus (1) it shall be (2) as people (3) grow, multiply (4) 146.15}\]

Examples of contrary-to-fact conditions are:

\[ \text{aldi } \text{ (1) yu}^{9} \text{ya}^{9} \text{k}^{9} \text{qi}^{2} \text{ et}^{9} \text{e}^{9} \text{ (2) } \text{mala}^{9} \text{xbi}^{9} \text{n} \text{ (3) if I knew (2) all (1), I should tell it to you (3) 162.5}\]

\[ \text{nek}^{9} \text{ (1) yo}^{9} \text{k}^{9} \text{qi}^{2} \text{ (2) dak}^{9} \text{-limxgwa}^{9} \text{ (3) if it were (2) anyone else (1), it (tree) would have fallen on him (3) 108.11, 13}\]

\[ \text{i'daga } \text{ (1) ge (2) yu}^{9} \text{k}^{9} \text{qi}^{2} \text{ (3) wede (4) } \text{d}^{9} \text{ma}^{9} \text{ma}^{9} \text{ (5) if that one (1) had been (3) there (2), I should not (4) have killed him (5) } \text{gqi}^{9} \text{ (1) ge (2) yu}^{9} \text{k}^{9} \text{qi}^{2} \text{ et}^{9} \text{e}^{9} \text{ (3) bo}^{9} \text{ (4) } \text{yana}^{9} \text{ (5) } \text{haga}^{9} \text{ (6) if I (1) were (3) there (2), he would have gone (5) in that event (4)}\]

In the last example, haga'1 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: "is'ksi (1) keet' e'tk'maulde' (2) he'ne (3) yap'na (4) a'k'taukik (5) whenever the dog (1) barked (2), then (3) he found (5) a person (4).

2 = ginik'e + k'et'x.

3 Causes the death of.
form of the demonstrative pronoun ha't'ga THAT ONE; it is used also with persons other than the third:

yana't'e 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'nī:

yānt'e I went; a'nī yānt'e 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't he will go : wede yana'k' he will not go
yanada't you will go : wede yana'k'te't you will not go
yana't'e I shall go : wede yana'k'a' I shall not go
dömxbin I shall kill you : wede dömxbiga I shall not kill

178.15

dō'mxa'nk' he will kill him : wede (1) ne'k' (2) yap'ta (3)
\hspace{100pt} gama'zdi (4) dō'w'mk' (5) no
\hspace{100pt} (1) one (2) will slay (3) a person (4) who is no shaman
\hspace{100pt} (5) a

Negative imperative:

yana' go! (sing.) : wede yana't do not go!
yana'np' go! (pl.) : wede yana't'p' do not go! (156.9)
dō'm kill him! : wede dō'ma't do not kill him!
\hspace{100pt} ga na'na do that! : wede ga na'naxt'a 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 dō'ma'n 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

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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; use of the imperative constructions lies in such periphrastic sentences as:

\[ \text{Remove (all thought from your mind) that I (inferentially) go (i.e., I shall not go)} \]
\[ \text{Remove (all thought from your mind) that you might, would go (i.e., do not go!)} \]

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 \( \text{wayi'nda} \) is used in preference to the matter-of-fact aorist \( \text{wayi'mnt'eedas} \) because of the implied inference, I WASN'T DEAD, AFTER ALL, ELSE HOW COULD THEY WAKE ME? I WAS REALLY 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:

\[ \text{gemi' di (1) gi (2) wayi'ndaagvat' (3) yu'k'a (4) how (1) should I (2) be (4) daughter-in-lawed (3) (i.e., how do I come to have any daughter-in-law?) 56.10 I didn't know that you, my son, were married!} \]
\[ \text{gi' (1) di' (2) ha'mi't'ban (3) dō'mk'a (4) did I (1) kill (4) your father (3) ? (2) 158.2} \]
\[ \text{s-gwi di' (1) le'mk'ic'auk' (2) where (1) have they all gone (2), any way? 90.25, 27 says Coyote, looking in vain for help} \]
\[ \text{ō + (1) mi (2) di' (3) s'amgi'auk' (4) Oh! (1) has it gotten to be summer (4) already (2) ? (3) says Coyote, after a winter's sleep in a tree-trunk 92.9} \]
\[ \text{ga (1) di' (2) xep'k' (3) ga (4) di' (5) gā'wde'k' (6) ga'k' (7) so it is those (1) that did it (3) ? (2) those (4) that ate (7) my wife (6) ? (5) 142.18} \]

\[^1\text{§2 merely marks the Coyote (see footnote, § 2).} \]
e'me (1) dab'a't (2) di (3) e'ta (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?)

g a (1) di' (2) p'ia'ant (3) gai'k'a (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 gwine when, how long followed by wede and the inferential, to denote a series of repetitions or an unbroken continuity of action. Examples are:

\[ gwine (1) di' (2) wede (3) waik' (4) he kept on sleeping (literally, when [1] did he not [3] sleep [4] ? [2]) 142.11; 152.24 \]


\[ gwine (1) di' (2) wede (3) d'ak'um (4) he kept on being found, they always stumbled upon him again (literally, when [1] was he not [3] found [4] ? [2]) 110.15 \]

Similar psychologically is the non-negative future in:

\[ ge'me'di (1) hono (2) al-dai'gi'nk (3) they never found him again (lit., when [1] will they find him [3] again? [2]) 190.25 \]

### 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.

\[ § 73–74 \]
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., dōmxbiyat'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 -gw'i-, 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:
   - waiđe' your sleeping
   - bā'a-dowi'x to fly up
   - hogwa'x to run
   - t'ēwa'x to play shinny
   - ne'x saying 108.16; 184.10
   - yana'x to go
   - hoida'x to dance
   - lō'x to play 31.7
   - na'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'ey')

   Stems ending in long diphthongs either take -x or -ax. Thus we have either ha-yēw-a'x-dā'ada or ha-yēw-a'x-dā'ada IN THEIR RETURNING 124.15.

2. From Class II intransitives:
   - k'wā't'axgwa to wake up (intransitive)
   - geiwa'lxgwa to eat
   - lāk'wa to become
   - plāla'k'wa to tell a myth
   - t'gelxgwa to run around, roll
   - ba-i-di'nxgwa to march
   - s'a'sank'wa to stand
   - sana'k'wa to fight
3. From Class IV verbs:
- *i-he'gwa'k'wa* (= *he'g'ha'k'wa*) to work
- *al-we'k'talk'wa* to shine
- *da-bo'k'ba'xgwa* to bubble under water (observe verb-suffix -x- of infinitive; but *da-bok'loba'k'na'n* I make bubbles)

4. From -xa- verbs:
- *lū'xwa* (= *lūk'-xa*) to trap
- *p'elxa* to go to war (but also *p'elxa'k'wa*).

5. From reflexives:
- *t'gwaaxa'nt'gwidepxdagwa* to tattoo himself
- *han-se'gwa'nt'gviapxde'k* to paddle myself across

From non-reflexive verbs are derived:
- *ga-iwiapxde'k* my eating
- *wa'xiapxda* his coming to get me

6. From transitives:
- *p!ala'xbiya* to tell you a myth
- *v-gaxga'xgwa* to scratch one's self
- *i-gisa'gisa* to tickle him
- *wayanagwa* to run after him
- *lō'gwa* to play with it
- *dōmk'wia* to kill him

The syntactical usage of verbal nouns of action is illustrated in the following examples:

- *hi1i'n1cwat'f k!ename'k* he will make me tired (literally, my-tiredness he-will-make-it)
- *t!omōxāda wiyina'k* I help him kill (literally, his-killing I-aid-it)
- *ho'gwa'gel-gulugwa'e*n* I like to run (lit., running I-like-it) (196.8)
- *a'ni' yok'lo nexde'k* he does not know what I said (literally, not he-knows-it my-saying)
- *xi-sugwa ga'sa'l* in order to drink water (literally, water-drinking for)
- *ba-i-ki'iyi'k* al-xi'xbiya ga'sa'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; *hazak'wede* to burn (also *hazagwa*).
2 Umlauted from *igisgaria*.

§ 70
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'atl to, at, for. The infinitive, as its inclusion of the object shows, preserves its verbal character almost completely, and may itself govern another infinitive:

*ktemnia' al-we'k’talk’wāq 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*mt’ga’mxgwa darkness
- gina’x passage-way 176.9
- ye’l’sgwix sweat (cf. ye’l’sgwadex)

I shall sweat [140.1]

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, wihiin dōmt’ eit’e (literally, MY-MOTHER HAVING-KILLED I-AM) and wihiin tlomoma’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:

\[
gwi-na’t’ \text{ how constituted, of what kind? (gwi- [how, where] + na’t’ [from na- do, act])} 14.4, 9, 10; 15.6
\]
\[
ga-na’t’ \text{ of that kind, so in appearance 63.12; 192.7}
\]
\[
wumt’ klemēn I make him old (cf. wumant’e I grow old)
\]
\[
t’gā haxa’t’ burnt field (not passive, but really=field that has at one time burned) 92.29
\]
\[
hēlt’ eit’e I know how to sing (literally, singing I am)
\]
\[
yap’ta lohōnt’ eit’e I have killed (many) people (literally, people causing [or having caused]-to-die I am)
\]
\[
loho’t’ having died, dead 148.13
\]
\[
hava’x-xiwi’t’ (it is) rotting
\]
\[
xuda’mt’ eit’e I am whistler
\]
\[
nil’xa yi’lt’ having copulated with his mother (insulting epithet applied to Coyote) 86.5, 6, 16
\]

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 organ-
ically -\(hak\)'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, d\(amhak\)'w (always) 
KILLED or STRUCK PERSON, but wo-d\(uk\)'m\(i\)'k\(i\)'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 nomi-
nal in character, they may be provided with possessive suffixes; e. g., 
d\(amhak\)'w-dek' MY STRUCK ONE. Forms thus arise which, like -t'-par-
iciples 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 t\(daga 
t!omo\(ama\)'n (d\(omk\)'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 t\(daga d\(amhak\)'w THAT ONE IS 
[regularly] SLAIN, STRUCK) necessarily refers to habitual or regularly 
continued activity: t\(daga d\(amhak\)'w-dek' THAT ONE IS MY (regu-
larly) STRUCK ONE thus approaches in signification the finite 
frequentative t\(daga t!omo\(amda\)'n THAT ONE I (always) STRIKE, 
but differs radically in signification from both t\(daga t!omo\(ama\)'n 
I KILLED THAT ONE and t\(daga d\(omt\)'e t\(e\)'n I AM ONE THAT HAS KILLED 
THAT ONE.

Examples of -\(k\)'w- participles are:

gwen-sgu\(u\)'nt\(ok\)'w (those) with their necks cut off (21.2, 4, 5)
xa-\(i\)-sg\(i\)'t\(e\)p\(sgibik\)'w (bodies) cut in two 21.2; 22.3
(m\(i\)\(t\)) g\(ela\)'p\(i\)'ak\(w\) \(w something which is (already) twisted
\(g\(ahak\)'w na\(s\)'ne\(x\) like something planted, sown
\(w\(oa\)'-\(i\)-\(daxik\)'wdek' I have been gathering them (literally, my 
gathered ones)
d\(ak\)-\(wa\)-p\(i\)'\(t\)'lik\'w (manzanita) mixed with (sugar-pine nuts) 178.5
t\(an\) t\(g\(wi\)l gu\(t\)'\(ok\)'\(w\)d\(a\) squirrel has been burying (g\(o\)\(w\)-) hazel-
nuts (literally, squirrel hazel-nuts [are] his-buried-ones) \(s\)(ek\)'ak\'w-dek' \(I (always) shoot (s\(a\)\(g\))- him (literally, my shot one)
\(mi\(la\)'shak\'w-dek' I love her (literally, my loved one)

\(1\) Cf. galaba'n I TWIST IT; -\(e\)' above is inorganic, hence unpalatalized to -e-.
\(2\) t\(g\(wi\)l HAZEL-NUTS) is the grammatical subject; g\(u\)\(t\)'\(ok\)'\(w\)d\(a\) predicates the subject; t\(an\) (SQUIRREL) is 
outside the main core of the sentence, being merely in apposition with the incorporated -\(da\)a (INS) of the 
nominal predicate.

\(\$ 77\)
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 -‘k’w are freely employed to make up instrumental nouns, such as names of implements. Examples are:

- dō-k’-sgū’ut’ik’w log-cut-with (=saw)
- se’l-wa-se’la’mdik’w black paint (writing)-therewith-painted (written) (=pencil)
- ū-smi’lsmilik’w (thing) swung (=swing)
- dūk’-wa-sgū’ut’ik’w dress-therewith-cut (=scissors)
- k’wāt-bā-sgēk’sgigik’w grass-up-pitched-with (=pitchfork)
- yap’la-wa-dō-mi’k’w people-therewith-killed, e. g., arrow, gun
- dō-ma’xau al’-wa-xi’ik’ik’w far therewith-seen, e. g., telescope
- mūlmlilik’k’w something to stir (mush) up with

It is interesting to note that forms in -k’ 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:

<table>
<thead>
<tr>
<th>Noun</th>
<th>Participle</th>
</tr>
</thead>
<tbody>
<tr>
<td>ts’ele’i his eye 86.7, 9</td>
<td>ts’ele’ik’w eye-having 27.9</td>
</tr>
<tr>
<td>ni’xa his mother 17.11; 126.7</td>
<td>ni’xak’w he has a mother</td>
</tr>
<tr>
<td>ma’xa his father 17.12; 126.6</td>
<td>me’xak’w he has a father</td>
</tr>
<tr>
<td>k’a’tlā’p’iťi’i his woman (178.8)</td>
<td>k’eł’el’p’ik’ik’w he has a wife 142.6</td>
</tr>
<tr>
<td>tli’tlā’p’iťi’i her husband 46.1</td>
<td>tli’el’p’ik’ik’w she has a husband</td>
</tr>
</tbody>
</table>

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’xaqwata’ 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-gūla’k’ak’-de’k’ my liked one, I like him (=gel-gūla’zab-at’k’)
- gel-gūla’k’ak’-da they like him (=gel-gūla’zap’)

§ 78
Forms in -xap' are in particular use as names of articles of clothing. Examples are:

gwen-wi't'texap' handkerchief, neckerchief 188.5 (cf. gwen-wi't'tklan I shall wind it about my neck)
dak'-wi't'texap' something wound about one's head
xãa-le'esap' (= -tl-xap') belt (cf. xãa-lã'atlan I shall put it about my waist)
gwen-p'tixap' pillow (cf. gwen-p'tlk'wan I shall lie on pillow)
ha-lu'xap' shirt (cf. ha-lo'kp'tlan I shall put on shirt)
ha-ya-u-tge'n'sap' (= -ts!-xap') vest (cf. ha-ya-u-t'ge'nts!an I shall put it about my middle, ribs)
sge'ezxap' 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, -'s, _saa, -s, 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. -sãa and -sãi, 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). -'s and -xi are used with both transitive and intransitive stems.

§ 80. Nouns of Agency in -(a')s

This suffix is used to form agentives with more freedom than the others seem to be. The ending -s is added directly to the verb-stem, with connective -a' (instrumental -i-) if phonetically necessary. No examples have been found of agentives in -s from intransitives of Class II. Examples are (49.4; 60.10):

- ho'ida'es dancer
- ke'lai'es singer
- p'lãga'es bather
- yãda'es swimmer
- tsi!a-wya'es fast runner 138.2
- ei-sã'gwa'es canoe paddler

- ha'pzi-tã'ga'es child-crier (= cry-baby)
- rut'ma'es whistler
- k'aiwi'wa's-i-dõxi'es one who gathers everything
- xuma-klemna'es food-maker (=cook) 54.4
- dõmxbi's one who kills you
- mala'zimi'es 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-
The strongly verbal coloring of the agentive in -s is perhaps best indicated by its employment as a final clause. Examples of this use are:

\[ \text{ba-i-}k\text{-}i}y\text{-}k\text{-}d\text{e}^s \text{ al-}x\text{-}i}x\text{-}x\text{-}bi\text{z}^s \text{ I came to see you (literally, as one-seeing-you)} \]
\[ \text{me}^s\text{-}g\text{-}i\text{-}n\text{-}i}\text{-}k\text{-}\text{he} \text{ came to see me} \]
\[ \text{hoida}^s\text{ di me}^s\text{-}g\text{-}i\text{-}n\text{-}i\text{g}^t \text{ did you come to dance? (i.e., as dancer)} \]
\[ \text{a}^s\text{-}n\text{-}x\text{-}e\text{ me}^s\text{-}g\text{-}i\text{-}n\text{-}i\text{k} \text{ de}^s \text{ I did not come to play, as player 31.6} \]

(cf. § 74 for another method of expressing this idea)

§ 81. Nouns of Agency in -si, -sā

These, as already observed, are less distinctly verbal in force than the preceding. Some verbs have agentives in both -s and -sā; e.g., he'la's and hēlsā's singer. Not infrequently there is a distinct feeling of disparagement in a -sā -ative as compared with one in -s; e.g., hōg'wa's good runner, but ho'k'sā 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. -sā 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 -si and -sā are:

- he'gwā'k'sī worker
- da-lōsi liar (but non-disparaging lōxi's player)
- ā'isī (= ā'is'sī) k'ëmë'n I make him laugh (literally, laughter)
- al-t'wā'p't'wā'p'sī blinker
- al-t'wā'p't'wā'p'sā go-between (settler of feud) 178.11
- dā-p'liya wīsā one going, dancing by side of fire (= medicine-man)
- yims'sā (= yims'sā'-sā') dreamer (= medicine-man)
- wāsā big sleeper
- ese'sā big sneezer
- se'sansā one knowing how to whoop
- sāna'p'sā one knowing how to fight
- sā'a'sansā one always standing
- s'ā'alsā one always sitting
- nōts!adam yu'sā e'bik' we are neighbors (literally, neighboring-to-us being [stem yu-] we-are)
- t'obaga'sā (= -a's-sā') eit' you are always lying like dead

A few nouns in -sī, in which an agentive meaning can not well be detected, nevertheless doubtless belong here: lōsī' plaything
§ 82. Nouns of Agency in -xi

Only a few verbal derivatives in -xi have been obtained. They are:

- al-huyuxi (= -x-xi) hunter
- ye'xi needle, awl (literally [?], biter [cf. verb-stem ye'g- bite])
- gel-dula'xi et'e I am lazy, one who is lazy
- gel-he'xi stingy (cf. verb-stem he1'x- be left over)
- würnxi' paddle stirrer (cf. sü°m-Ca- boil) (170.16)
- et t'gelxi'l wagon (literally, canoe one-that-rolls)

§ 83. FORMS IN -i'ya

Two or three isolated verb-forms in -i'ya 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'gã° (1) /iaxani'ya (2) mî' (3) al-t!aya'hc' (4) then (3) he discovered (4) a burnt-down (2) field (1) 92.26
- yap!a (1) dã°mî'ya (2) ẽ'ã°t!ayalc (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:

- dî-he'liya (1) wa-õwît' (2) girl (2) who sleeps on a raised board platform (1) (literally, perhaps, up-boarded girl [cf. he'da'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 denoting 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
- *se'el* black paint, writing
- *he'el* song 106.7; (164.16)
- *liw-a* naga*te* he looked (perhaps = his-look he-did) 55.6
- *dük* shirt 96.16
- *tü* gambling-sticks in grass-game
- *xle*ép*te* dough-like mass of camass or fat
- *xän* urine

### Verb
- *se'el-a'md-a* I paint it
- *hël* sing! (170.12)
- *tiwila'-u-t* I looked (152.17)
- *imperative liw 14.11; [60.2]*
- *där-dük* wear it! (55.9; 96.16)
- *tü'lal-simiba* let us gamble at grass-game 31.9
- *s-xlep'e'xle'p-r* I mash it into dough (94.11)
- *xala'-xam-t*e I urinate

A number of cases have been found of stem + suffix serving as noun and verb (e. g., *wiwtha'm* MENSTRUAL "ROUND" DANCE 100.10, 16: *wiwtha'm'te* 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: *hël-gulu'k* HE WILL SING, but *hël-gulu'k* 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'el-se'elamsi* write to me!
- *dün'gwí't dí-dün'gwánk' she shall wear her skirt 55.9

If we analyze noun forms like *tünbagwán't'k* MY PANCREAS and *daa'ndále'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 (*tünba-; daa-) 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., *tünba-wesin 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 $d\dddot{a}a^nxde'k'$ shows no formative element in the proper sense of the word, while the $-gw-$ of $tibagwa'nt'k'$ is such an element (cf. from stem $liu-$ 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 $d\dddot{a}a^nxde'k'$ and $tibagwa'nt'k'$, respectively, are elements of this kind (cf. $ha-da-n-de$ IN MY EAR; $ha-tibagw-an-de$ 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 $ha-t'gâ'null$ IN THE EARTH 33.7 (from $t'gâ$ 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; $d\dddot{a}a^d$-dan-$a'$ beside the rock; $dal$-dan-$a'$ among the rocks; $dan-a'$-t'$k'$ my rock; $dak'$-dan-$a'$-de' over my rock (with constant $-a-$ from $da'n$ rock 16.12)

$ha-gwâ'dl$-a'$m in the road 62.6; $d\dddot{a}a^d$-gwâ'dl$-a'$m along the road; $gwâ$'d-l$-a'$-m-t'$k'$ my road (96.8); $dak'$-gwâ'dl-am-de' over my road (48.6, 8) (with constant $-am-$ from $gwâ'n$ 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 $x\dddot{a}a^d$-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 § 84
(e. g., \(d\ddot{a}^{a}-n-x-d\dot{e}k\)) 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., \(tli\)bagw-a'n-t'k) and of those that lack it (e. g., bëm-t'\(\ddot{a}\) 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:

\begin{align*}
\text{bilg-an-x-de'k} \quad \text{and} \quad \text{bilg-a'n-t'k} \quad \text{my breast} \\
\text{se\textsuperscript{n}s-i-x-da'z} \quad \text{and} \quad \text{se\textsuperscript{n}s-i'-t'} \quad \text{your hair} \\
\text{wö\textsuperscript{a}d-i'-x-du} \quad \text{(92.24)} \quad \text{and} \quad \text{wö\textsuperscript{a}d-i'\textsuperscript{i}} \quad \text{his body} \quad \text{146.6}
\end{align*}

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 \(ei-x-de'k\) \textit{my canoe} (from \(ei\) \textit{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:

\begin{align*}
dagax \text{wö'k'ie} \quad \text{head without} \\
ha-d\ddot{a}^{a}-n-x \text{molhi't} \quad \text{in-ear red (i. e., red- eared) 14.4; 15.13}
\end{align*}

If the local phrase involves a personal pronominal element, the -x-disappears:

\(d\ddot{a}^{a}-n-x-d\dot{e}k\) my ear, but \(ha-da-n-dë\) 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 (\(gwän\)), or incorporated in verb (\(d\ddot{a}^{a}\)).

2. **Derivative element.** Occurs as ending of absolute form of noun whose stem appears only in incorporation: \(tli\)bagw-\(k\)' pancreas.
3. **Noun characteristic.** Occurs with all increments of absolute form of noun; i.e., with pronominal suffix (gwáq-l-a'm-t'k'), with pre-positive (ha-gwáq-l-a'm), and with pre-positive and pronominal element (ha-gwáq-l-am-dë).

4. **Pre-pronominal -x-.** Occurs with pronominal suffix (dáq-n-x-de'k') and pre-positive (ha-dáq-n-x), but never with pre-positive and pronominal element.

5. **Pronominal suffix.** Occurs in two distinct forms: one for nouns without pre-positives (dáq-n-x-de'k'), and one for nouns accompanied by pre-positive (ha-dáq-n-dë).

A tabulated analysis of a few typical words follows:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Derivative</th>
<th>Characteristic</th>
<th>Pre-pronominal</th>
<th>Pronominal</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ha-) wáq-</td>
<td>le'-</td>
<td>k'w-</td>
<td>g-an</td>
<td>t'k'</td>
<td>in the creek</td>
</tr>
<tr>
<td>da-q'á-k'</td>
<td>k'w-</td>
<td>n-</td>
<td>x-</td>
<td>de'k'</td>
<td>my anus</td>
</tr>
<tr>
<td>dán-</td>
<td>n-</td>
<td>i-</td>
<td>t'k'</td>
<td>my medicine-spirit</td>
<td></td>
</tr>
<tr>
<td>bo'k'd-</td>
<td>t'a-p'a-k'</td>
<td>i-</td>
<td>t'k'</td>
<td>my ear</td>
<td></td>
</tr>
<tr>
<td>k'a-k'</td>
<td>t'a-p'a-k'</td>
<td>i-</td>
<td>t'k'</td>
<td>my neck</td>
<td></td>
</tr>
<tr>
<td>ló-</td>
<td>s-t'-</td>
<td>a-</td>
<td>t'k'</td>
<td>my woman</td>
<td></td>
</tr>
<tr>
<td>sge'-</td>
<td>s-x-</td>
<td>a-</td>
<td>t'k'</td>
<td>my plaything</td>
<td></td>
</tr>
<tr>
<td>li'-</td>
<td>s-gu-</td>
<td>a-</td>
<td>de'k'</td>
<td>my hat</td>
<td></td>
</tr>
<tr>
<td>lín-</td>
<td>s-gu-</td>
<td>a-</td>
<td>de'k'</td>
<td>my face</td>
<td></td>
</tr>
<tr>
<td>tó-</td>
<td>s-t'-</td>
<td>a-</td>
<td>de'k'</td>
<td>on his back</td>
<td></td>
</tr>
<tr>
<td>(ha-) yau-</td>
<td>le'-</td>
<td>i-</td>
<td>x-</td>
<td>de'k'</td>
<td>my backbone</td>
</tr>
<tr>
<td>dém-</td>
<td>a-</td>
<td>dë</td>
<td>in my ribs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>zá-m-</td>
<td>a'-</td>
<td>t'k'</td>
<td>my testicles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tó-(zám.)</td>
<td>a'-</td>
<td>t'k'</td>
<td>my urine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i-</td>
<td>a-</td>
<td>de'k'</td>
<td>my hand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(hat-) t-</td>
<td>a-</td>
<td>dë</td>
<td>in my hand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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'óm MOUNTAIN, mèx CRANE, cf. tlan- HOLD, s'óm- BOIL, he'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.

#### § 85
as the aorist naga- is formed from the verb-stem nã°g- SAY TO SOME ONE. Similarly, the noun yelex BURDEN-BASKET is phonetically related to a hypothetical base *yelx-, as is the aorist lem-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 morphological analogy to Type 2 (or 3) verbs like aorist xudum- WHISTLE, verb-stem xutm- (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 yût!u'n DUCK, is very probably identical with the yut!- of aorist yutuyad- 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!iyin DEER and p!iyax FAWN with the aorist -p!iyin-(k'wa-) LIE ON PILLOW (cf. gwen-p!txap 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.

1Improbable, however, if aorist p'egen- 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·ín- nose
- dāw- ear
- gel- breast
- gwen- neck
- dag- head
- s'al- foot
- gwel- leg
- yaw- rib
- ī- hand
- xāw- back
- de- lips, mouth
- ha- woman's private parts

Occurring as absolute nouns:

- nōx rain 90.1
- p'īt fire 62.10; 78.13
- bēm sun 54.3; 122.15; 160.20
- bēm tree, stick 25.5; 48.7
- xi' water 15.1; 57.14
- t'gā land 49.12; 73.9
- t'gwa' thunder 55.8
- pāw'as snow 90.2, 3; 152.16
- p'ī'm salmon 17.12; 30.10
- lān salmon-net 31.2; 33.4
- māl salmon-spear shaft 28.7
- t'gwa'n slave 13.12
- gwān trail 148.7
- bās fly
- dēl yellow-jacket 73.7, 10
- mēx crane 13.1
- xe'm raven 162.8, 12
- s'em duck 55.2; 166.10
- sēl kingfisher
- mēl crow 144.9; 162.7
- yōk' wildcat 42.1; 46.9
- xa'mk' grizzly bear 106.14
- dōp' camass 108.18; 124.12
- k'wār' grass 31.8
- hīx roasted camass 178.4
- ōp'p' tobacco 194.1
- k'wāl pitch 88.13; 158.9
- yōp' woman's basket-cap 178.3

§ 86
Occurring generally with possessive suffix:

\[
\begin{align*}
ma-1 \text{ } & \text{father} 17.12; 70.7; 158.3 \\
h\text{am-} & \text{wād- body} 92.24; 130.24; 146.6 \\
\text{nī-} & \text{brains}
\end{align*}
\]

\[
\begin{align*}
h\text{īn-} & \text{mother} 17.9; 76.10, 13; 172.17 \\
\text{se-} & \text{skin}
\end{align*}
\]

\[
\begin{align*}
gūw- & \text{wife} 13.2; 45.3; 64.5; 142.12 \\
\text{tī-} & \text{male, husband} 45.14; 126.14
\end{align*}
\]

\[
\begin{align*}
\text{āl-} & \text{teats} 30.14 (\text{nā} \text{ found as absolute form 130.9)} \\
\text{plān-} & \text{liver} 120.15 (\text{plān found as absolute form 57.9, 13)}
\end{align*}
\]

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 ge'el, already given above, may be cited:

\[
\begin{align*}
t\text{go'is} & \text{leggings} \\
\text{kla'ls} & \text{sinew} 27.13; (28.1) \\
\text{plel's} & \text{basket-plate 168.15} \\
\text{k'o'ts} & \text{tar-weed seeds 26.15}
\end{align*}
\]

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 o"p', pl'a's, t'i's, and lā'ap', may be mentioned:

\[
\begin{align*}
n\text{e'el} & \text{song 106.7} \\
\text{se'el} & \text{black paint, writing} \\
\text{ge'e't} & \text{xerophyllum tenax} \\
\text{ye'e't} & \text{tears} \\
\text{wā'as} & \text{bush (sp. ?) 25.12}
\end{align*}
\]

\[
\begin{align*}
\text{t'le'k's} & \text{yellowhammer 90.18; 194.15} \\
\text{t'be'k's} & \text{shinny-ball} \\
\text{a'lk} & \text{silver-side salmon} \\
\text{ple'as} (\text{with derivative -s? see § 87, 8}) & \text{flat rock on which acorns are pounded 74.13; 75.2; 118.17}
\end{align*}
\]

For two of these nouns (he'el and se'el) the etymology is obvious. They are derived from the verb-stems hee'l- SING and se'-l-(amd-) PAINT; it may well be that the falling accent here characterizes substantives of passive force (THAT WHICH IS SUNG, PAINTED). Possibly lā'ap' and o"ap' 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 UP¹ (cf. aorist stems lāv'b- CARRY and õv'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'i'xi' dog
- moxo' buzzard 105.23
- sg'i'si coyote 13.1; 70.1; 108.1
- sgwini' raccoon
- k'na'ma spit for roasting 170.17
- yap'ta' person 14.12; 96.2; 128.2
- yana' acorn 15.16; 16.9; 58.9

With probably derivative final consonant are:

- lege'm- kidney
daga'n turtle
ts' iaxa'sn blue-striped lizard
- yulu'm eagle 77.2; 122.15; 164.8
- gu'u'm oak 22.10
- k'ul'lum fish (sp.?)
- loxo'm manzanita 126.17; 178.5

yütlu'n white duck 55.5
pl'i'yn deer 17.1; 42.2; 54.2
gak'lan ladder 176.8

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'gwal'a hooting owl 194.9
tlibis'ti' ant 74.4; 75.5
- hū'sū'u chicken-hawk 142.6
da-uyā's-shaman's spirit (?from daw-y- fly) 164.14
- sūhū'u quail 70.2, 5; 71.4

Compare also t'ọnọ's- below (Type 3); ts' i'li'i'k' - and t'bele's (Type 3) owe their falling accent to the presence of a glottal catch.

Very remarkable is the stem formation of the noun t'uxū'i DRIFTWOOD 75.5. It is evidently formed from the verb-stem dōxox- (aorist stem t'oxox-) GATHER (WOOD) according to aorists of Type 7b, at the same time with vowel ablaut (cf. theoretic t'ūxū-xī 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 õp' is correct, Pit River õp' TOBACCO must be borrowed from Takelma.

§ 86
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.

\[
\begin{align*}
\text{libis} & \text{ crawfish 30.2} \\
\text{nihwii'k'w} & \text{ black bear 116.1; 118.1} \\
\text{ts'i'il'i'k'!} & \text{ elbow} \\
\text{s'idib-i-} & \text{ (house) wall 176.4, 9} \\
\text{lepa'pe's} & \text{ cat-tail rushes} \\
\text{t'bole's} & \text{ pine-nuts} \\
\text{t'we'we'x} & \text{ flea} \\
\text{s'o'elek'w} & \text{ pestle 56.1} \\
\text{s'o'ul'uk'} & \text{ cricket} \\
\text{t'lon'ow's} & \text{ humming-bird (perhaps with derivative -s)}
\end{align*}
\]

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:

\[
\begin{align*}
\text{ts'i'elei-} & \text{ eye 27.8; 86.7; 92.20} \\
\text{k'wedei-} & \text{ name 100.21} \\
\text{k'i'elei-} & \text{ bark 54.6} \\
\text{k'ito'o'i} & \text{ storage basket 61.5; 138.17}
\end{align*}
\]

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'i'elei- has been found incorporated in that form.

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.

5. A few nouns are found that show a repeated initial consonant; they may be compared to Type 10 aorist stems. Examples are:

\[
\begin{align*}
\text{se'ns-} & \text{ hair 136.28 (cf. se'ns- skin)} \\
\text{hi'j!-} & \text{ throat 25.2 (cf. aorist lomol choke)} \\
\text{ts'!u'n's} & \text{ (ts'!unts'!-) deer-skin cap embroidered with woodpecker-scalps}
\end{align*}
\]

\(^1\) Absolute form dega's 178.4; cf. yula'm 164.3 alongside of yulu'm 77.87

\(\S\ 86\)
su̇ns thick, deep (of snow) 90.3 ts'le'nts's' (ts'le'nts's')- wild-rose berry 92.23
bebe'[n rushes bāp' seeds (sp.?)(34.1; 79.9; 94.19)
būb-a' n arm 23.2, 4; (172.4) ts'!a'nts's'- bluejay (onomatopoetic) 22.14; 102.10; 166.11
sēns bug (sp.?)

Here may also be mentioned k!a'mak!a° his tongs (also k!a'mā°).

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:

Also wa-'wī'ti GIRL 55.7; 96.23 doubtless belongs here; the -wī't 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 unrepeated. Such are:

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:

Even all of these are not certain. Those with radical -a- might just as well have been classified with the preceding group (thus

1That -ts' is felt to be equivalent to -ts' is shown by Bluejay's song; te tu'le'te 5-4 gu'a'ton gu'aton 104.7.
2 hel-is felt as the base of this word, cf. Swan's song bēlēdē-ba wa'shina 104.15, which shows reduplication of hel-like aorist hel-el- of hel-sing.
dalda'ł may be very plausibly connected with aorist t'ala-la- from t'ala-, non-aorist dä-alal from dä- (crack); while p'abä'ap' and bobo'p' may, though improbably, show Type 1 reduplication (p'ab-äb- like p'lab-ab- (chop)). This latter type of reduplication seems, however, to be as good as absent in the noun (but cf. sqwogwök'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.

    wäxa his younger brother 54.1, 5  t'awäxa his younger sister 55.2
    wi-t'obä my elder brother 46.10   wi-t'obä my elder sister (55.14)

2. -lä'p'a(kl-). 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- lêp'i- see § 77). -kl- is added to it in forms with possessive or plural affix. For example, from tli'lä'p'a 178.7 MALE, HUSBAND are formed tli'lä'p'ikl'k'MY HUSBAND (142.7) and tli'lä'p'akl'lan HUSBANDS, MEN (130.1, 7). The fact that the stem preceding -lä'p'a appears also as a separate word or with other elements indicates that words containing -lä'p'a may be best considered as compounds.

§ 87
Examples are:

*tläpa* male, husband 178.7 (cf. *tl- husband, male*)

*k'a̱l'p'a* woman 25.9, 12; 108.4, 5 (cf. *k'a̱ contributing female one who has already had courses*)

*mologolap'a* old woman 26.14, 16; 56.3 (cf. *mologol old woman 168.12; 170.10*)

*bö̱t'ba̱ ak'lan orphans* (cf. *bö̱t'ba̱ orphan and bö̱t'ba̱ i-t'k' my orphaned children*)

*lomtivilap'a*k'lan old men 128.11; 130.1 (cf. *lomtivil old man 24.11; 126.19*)

*os'ö̱l'p'a* poor people

3. -k'. A number of place-names with suffixed -k' have been found:

*La'mhik' Klamath river*

*Shink' Applegate creek* (cf. *shin beaver*)

*Gwen-p'u̱n'k' village name 114.14* (cf. *p'u'n rotten 140.21*)

*Ha-tö̱n'k' village name*

*Dak'-t'gamik' village name* (cf. *t'gam elk*)

*Gel-yalk' village name 112.13; 114.8* (cf. *yalk pine*)

*Somolu'k'1 village name*

*Dal-dani'k' village name* (cf. *da'n rock*)

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*Somolu'k'1 village name*

*Dal-dani'k' village name* (cf. *da'n rock*)

4. -n. Nouns denoting PERSON COMING FROM are formed by adding this suffix to the place-name, with loss of derivative -k'.

Examples are:

*Ha-gwa'la person from Ha-gwäl, Cow creek*

*Lamhk'ya person from La'mhk', Klamath river*

*Shin'na person from Shin', Applegate creek*

*Dalsala person from Dal-sala, Illinois river*

*Dö̱m'ya person from Do'mi*

*Gwen-p'u'na person from Gwen-p'u̱n'k*

*Dal-daniya person from Dal-dani'k*

*Somola person from Somolu'k' (see footnote*)

*Ha-tö̱na person from Ha-tö̱n'k*

*La-t'gauwa person from La-t'gau, uplands 192.14*

*Dak'-t'gamiya person from Dak'-t'gami*

*Ha-t'ila person from Ha-t'il*

*Gel-yal'a person from Gel-yalk*

[Dak'-tslí'wa person from dak'-tslí'wa'n, i.e., above the lakes (= Klamath Indian)]

[Dak'-tsli'mala]
Daagelman person from Daagelam, Rogue river (= Takelma Indian)

Di-dalama’n person from Didalaa’m, Grant’s Pass

Judging from the material at hand, it seems that -a’e’n is used only when the place-name ends in -m, though the ease with which a’e’n may be heard as -a’e (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’ib’a’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-as-dek’ my face (cf. verb-stem liu- look)
- da’madagw-a’n-t’k’ my shoulder
- da-u’ya’ek’w-dek’ my medicine-spirit (incorporated da-u’ya’-164.14)
- le’k’w-an-t’k’ my rectum (cf. la’ excrement 122.2)

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’la’m board 176.5 (cf. did-he’l’iya sleeping on board platform 13.2)
- ts’ela’m hail 152.12, 16 (cf. verb-stem ts’el- rattle)
- pi’yin deer 13.10; 42.2 (cf. pi’yax fawn 13.11; 49.11)
- yu’win speech 126.10; 138.4 (cf. verb-stem yiu- talk)
- li’bin news 194.9 (? cf. verb-stem laba- carry)
- yu’tu’n white duck 55.5 (cf. verb-stem yu’t- eat greedily)
- do’lk’im-a- anus (also do’lk’i- as myth form 106.4, 8)
- do’lk’in-i-
- do’lk’in-i- 106.6, 9
- xdan eel (cf. reduplicated hæ-xdan-xdagwa’an I throw away something slippery, nastily wet [49.7])
- s’ugwa’n root basket 124.5 (cf. s’ugwidt it lies curled up like bundled roots or strings)

dan ye’wold-in-i’ rocks returning-to-them, myth name of Otter 160.10, 13 (cf. verb-stem ye’wold- 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'la'm board can not be identified with the -am of ha-gwāla'm in the road, as gwāla'm has no independent existence. The exact morphologic correspondent of gwâla'm-am- is he'lam-a- (e. g., he'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
wōⁿp'u'n-t'k' my eyebrows

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'îm xu'm dried salmon; cf. also xuMû't'k'de' 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
pîelda' slug 105.25
noxva' small pestle
t'elma small pestle 62.1; 116.18, 19; 118.2
ma'xla dust 172.3; 184.5, 9
kîeda' grass for string (sp.?)
tîela' shinny-stick (cf. verb-stem tîeu- play shinny)
tîela' louse (cf. verb base tîel- lick) 116.3, 6, 7, 8, 11
tîiba- 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 -guos 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 gwâla'm-t'k' MY WRIST, in which -n-, inasmuch as it acts as the equivalent of the characteristic -a- (cf. gwâla'm-t'k' MY WRIST with t'k' MY HAND), is itself best considered characteristic element.

§ 87
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:

- ple'es mortar-stone fastened in ground (cf. verb-stem ple- lie) 74.13; 120.17
- la'ps blanket (cf. base lab- carry on shoulder) 98.14, 15, 19, 21
- ple'ns squirrel
- gams (adj.) blind 26.14 (cf. gomha'k'sw rabbit)
- bëls moccasin
- k!u'ls worm (cf. verb-stem gö'n-, aorist kilol-l- dig)
- yöls steel-head salmon (cf. yola' fox)
- bëls moss 43.16; 44.1; 47.15
- bami's sky 79.7 (cf. verb-prefix bam- up)
- bëls (adj.) long 14.5; 15.12, 15 (cf. da-baln'il-ax [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 pî'yax fawn 13.11; 16.8; 17.1, 2 (cf. pî'yin deer)
- xi' in bomxi' otter 13.5; 17.13; 154.13; 156.14; ü'zi seed-pouch;
- hāgpxi' child 13.8, 13 (cf. hāp'da his child 98.13 and hāg'-
- incorporated in hāg'-ktemnda's Children-maker 172.15)
- pluralic -x- in häpsda his children 16.3; 118.1, 14
- x- varies with -s- in adjective häpsdi small; hāgpxi' 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:

- baxdis wolf 13.1; 16.10; 17.10
- domx'a'u Chinook salmon
- yik'a't red deer
- yiba'xam small skunk
- bixa'l moon 196.1
- k'la'nak!as basket cup (probably reduplicated and with derivativ e -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'i' old man 24.11, 12; 126.19 (cf. t'i'- male)
- k'aś's o'k'da girl who has had courses (cf. k'aś'lā'p'a woman)
Independent nouns may, however, be juxtaposed without change of form to make up a descriptive term, the qualifying noun preceding:

- hapxí-t'ī't'ā' child male-person (= boy) 14.1, 6; 17.3, 6; 156.10
- hapxí-wa-īwīt'ī child female-person (= girl) 29.7; 30.1; 71.3
- hapxí-t'ā'gā's child crier (= cry-baby)
- da'n mologol' rock old-woman 170.10, 15, 20; 172.1
- dan hapxí-t'ī't'ā' rock boy 17.8
- dan wīlī'i his rock knife 142.20
- gwā's- wīlī brush house (for summer use) 176.14
- yāx wīlī graveyard house 14.8, 9; 15.5, 6
- wīlī' he'la'm house boards 176.5
- xamk' wa-īwīt'ī grizzly-bear girl 124.10; 130.6, 7, 26
- mena dap!ā'la-ut'ān bear youths 130.11
- yap!ā goyo' Indian doctor 188.12

Examples of compounds in which the first element is modified by a numeral or adjective are:

- wīlī hā'īgo' yap!ā' house nine people (= people of nine houses) 150.16
- yap!ā' alt' gu't'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:

- lasgū'm-ū'uxgwa't snake handed (= lizard) 196.4
- t'gwīl ts'li'k'da hazel its-meat (= hazel-nut)
- t'gwa he'lamā'ō thunder its-board (= lumber) 55.8, 10
- plīqin sge'cexābās deer its-hat (not deer's hat, but hat of deerskins)
- plīqin ts'lu'nts'li' deer its-cap-embroidered-with woodpecker-scalps
- k'ai mologolā'p'oxdā what its-woman (= what kind of woman?) 122.3
- wīlī gwala' houses many (= village)
- ts'li'xi maka'i dog big (= horse)
- p'īm s'intādca salmon its-nose (= swallow) (perhaps so called because the spring run of salmon is heralded by the coming of swallows)
- mena' alt' gun'apx bear + ? (= dormouse [?])
- xīlam sebe't' dead-people roasting (= bug [sp. ?]) 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- (bëvbël-i- [from bëw-bël' arm]), -a- (he'lam-a- [from he'la'm board]), -(a)n (gulm-an- [from gula'm oak]), and without characteristic (bo'k'dan-x-dek' my neck [from bob'an- 15.12, 15]).

1. -(a)n. Examples of this characteristic element are:
   gwit'i-n- wrist (cf. variant gwit'i-ä-)
   tibagw-an- pancreas 45.15; 46.5 (absolute t'ba'k'w 47.17)
   da'madagw-an- shoulder
   lek'w-an- rectum
   dān-x- ear 14.4; 15.13 (incorporated dān-)
   tsīaw-an- lake, deep water 59.16 (absolute tsīā 162.9; 166.15)
   gulm-an- oak (absolute gula'm)
   bob-in-1 alder 94.17 (absolute bo'y')

Its phonetic reflexes -al and -am occur in:
   sōum-al- mountain 124.2; 152.2 (absolute sōm 43.6; 122.16)
   dōum-al- testicles 130.8 (absolute dōm 130.20)
   tsīam-al- (in Dāk'-tsīa'mala' Klamath Indian, parallel to Dāk'-tsīawa'm)
   gwā'am- trail 48.6, 8; 96.8, 9 (absolute gwān 148.7)
   xāam-urine (absolute xān)

-am- is also found, though without apparent phonetic reason, in xāam-ham- back (incorporated xā-).

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'gwāna- slave (absolute t'gwān 13.12)
   he'lam-a- board 55.8, 10 (absolute he'la'm 176.5)
   yōks'w-a- bone 186.1, 196.17 (absolute yōs'w'k'w)

1 This word happened to occur with following emphatic yō'c', so that it is probably umlauted from bob-an-.
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 -a) lack it. They are:

- wi-k’aba’i my son (23.2, 3) : k’aba’-xa his son 138.16
- wi-t’obi my elder brother : o’p-xa his elder brother 48.3; 62.2 (46.10)
- wi-t’obi my elder sister : t’o’p-xa his elder sister 55.14; 56.6
- wi-k!’asi my maternal grandmother : k!’as-a his maternal grandparent 16.1, 2; (154.18)
- wi-zdą́i my paternal uncle : xdą́-xa his paternal uncle 22.14
- wi-hasi’ my maternal uncle : ha’s-a his maternal uncle 63.9; 77.14
- wi-t’adi’ my paternal aunt : t’a’d-a his paternal aunt 22.14
- wi-zaqai my maternal aunt : xaqai’-xa his maternal aunt
- wi-ts’ai my (woman’s) brother's child 22.1; 23.8, 10; my (man’s) sister’s child 148.19; 150.4

§ 89
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:

<table>
<thead>
<tr>
<th>Noun</th>
<th>Vocative</th>
</tr>
</thead>
<tbody>
<tr>
<td>gamdi'-xa</td>
<td>gamda</td>
</tr>
<tr>
<td>siwii'-xa</td>
<td>siwa</td>
</tr>
<tr>
<td>wak'di'-xa</td>
<td>wak'da</td>
</tr>
<tr>
<td>tlomxi'-xa</td>
<td>tlomxa</td>
</tr>
<tr>
<td>lamtsi'-xa</td>
<td>lamtsiá</td>
</tr>
<tr>
<td>yidi'-xa</td>
<td>yida</td>
</tr>
<tr>
<td>nanbii'-xa</td>
<td>nanbä</td>
</tr>
<tr>
<td>ximni'-xa</td>
<td>ximinä</td>
</tr>
</tbody>
</table>

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 tslayã O NEPHEW! 23.1 (beside tslá) and wô'k'dia O COUSIN! 88.14, 15 (beside wak'dã).

The stem ham- with its characteristic -i- is used as the vocative: hamt 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 -lã'p'a regularly take an -i- after the added -k'- of possessive forms: -lã'p'ik!-i-.

4. -u-. Only a few nouns have been found to contain this element as their characteristic. They are:

<table>
<thead>
<tr>
<th>Noun</th>
<th>58.2; 86.13 (incorporated ì-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>gwit!ì'-u-x-</td>
<td>(cf. variant gwit!ì'-i-n-)</td>
</tr>
<tr>
<td>ha-u-x-</td>
<td>woman's private parts 108.4; 130.8 (incorporated ha-)</td>
</tr>
<tr>
<td>t'gä-u-</td>
<td>earth, land 55.3, 4; 56.4 (absolute t'gä 73.9, 11, 13)</td>
</tr>
<tr>
<td>tlomxa'u</td>
<td>wife's parent (cf. tlomxi'xa his wife's parent 154.16; 164.19; see footnote, sub 3).</td>
</tr>
</tbody>
</table>

1 The first person singular shows -u as characteristic: wit!tomxa'u.
2 It is highly probable that this word has been influenced in its form by t'gä- 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, -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
- sal-x- foot
- gwel-x- leg
- de-x- lips
- gwen-ha-u-x- nape
- ei-x- canoe (absolute et)
- dēmo-x- hips
- liugw-ax- face
- bok'dan-x- neck (absolute bo'k'dan)
- hā'n-x- brothers

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., dē'aldal-x-dek' MY FOREHEAD from dē'aldal AT HIS FOREHEAD (but also dē'ala'l't'k' with first personal singular possessive ending directly added to stem or incorporated form dē'ala-); 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:

- haa'ix woman's private parts
- da'gax head
- yu'kdalx teeth
- dayawa'nt'ixi ~ixixi other hand
- gwelx dayawa'nt'ixi other leg

---

1 -x- 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 *dagadē as parallel to -i'm-dē).

2 Perhaps with pluralic -x- as in hādap-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 eius). 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-wilidë in my house, like sa'santë I shall stand
ha-wiltëda in his house, like sa'santëa he will stand

The following table gives the four possessive schemes, together with the suffixes of Class II future intransitives, for comparison:

<table>
<thead>
<tr>
<th>Terms of relationship</th>
<th>Scheme II</th>
<th>Scheme III</th>
<th>With pre-positives</th>
<th>Future intransitives II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>wi-</td>
<td>-la'k'</td>
<td>-la'k'</td>
<td>-da'k'</td>
</tr>
<tr>
<td>Second person</td>
<td>-da'k'</td>
<td>-da'k'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third person</td>
<td>-ka,-a</td>
<td>-da</td>
<td>-da'k'</td>
<td>-da'k'</td>
</tr>
<tr>
<td><strong>Plural:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First person</td>
<td>-da'm</td>
<td>-da'm</td>
<td>-da'm</td>
<td>-da'm</td>
</tr>
<tr>
<td>Second person</td>
<td>-da'm</td>
<td>-da'm</td>
<td>-da'm</td>
<td>-da'm</td>
</tr>
<tr>
<td><strong>Singular reflexive:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third person</td>
<td>-agwa, -agwa</td>
<td>-agwa</td>
<td>-agwa</td>
<td>-agwa</td>
</tr>
<tr>
<td><strong>Plural reflexive:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third person</td>
<td>-agwan, -agwan</td>
<td>-agwan</td>
<td>-agwan</td>
<td>-agwan</td>
</tr>
</tbody>
</table>

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'dadagwan their own enemies (=they are enemies)

The suffixes of the first and second person plural may also have reciprocal significance:

wu'da'm ebi'k' we are enemies (lit., our enemies we are) cf. 180.13

§ 91. TERMS OF RELATIONSHIP

ham- (ma-) FATHER, hin- (ni-) MOTHER, klas- MATERNAL GRANDPARENT, and beyan- DAUGHTER may be taken as types of the nouns that form this group.1

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
<th>Singular reflexive</th>
<th>Plural reflexive</th>
<th>Vocative</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person</td>
<td>hamida'm</td>
<td>ma'zagwa</td>
<td>hami</td>
<td></td>
</tr>
<tr>
<td>Second person</td>
<td>hamida'm</td>
<td>ni'zagwan</td>
<td>[hindi]</td>
<td></td>
</tr>
<tr>
<td>Third person</td>
<td>hamidcs'm</td>
<td>k/a'sawass</td>
<td>[k/nã]</td>
<td></td>
</tr>
</tbody>
</table>

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.

§ 91
Of the other words belonging to this group, only that for friend shows, or seems to show, a double stem: wi:kíwá'ya'm MY FRIEND and kíwá'ya'm o FRIEND! 31.6, 8; 32.4, 6 but kíwá'ya'pa'za HIS FRIEND 190.2, 4 and kíwáyaba'zt (with inorganic rather than characteristic a) YOUR FRIEND 198.2. Irregular is also wi-kíwá'xa' MY SON’S WIFE’S PARENTS: kíwá'xa'm-m-za 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:

wi-kíwá-younger brother 42.1; 64.4 (also t'awá-younger sister 58.1, 5; 188.10)

kíwá-e'b-husband’s parent

wóyau- daughter-in-law ([?] formed according to verb-type 11 from wóy-sleep) 56.8, 9

síyá'p'-woman’s sister’s husband or husband’s brother

hasd'-man’s sister’s husband or wife’s brother 152.22

kíwáya 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 -á, which, as in wá o YOUNGER BROTHER! may be the lengthened form with rising accent of the final vowel of the stem, or, as in kíwáasá o GRANDMOTHER! 16.3, 5, 6; 17.2; 154.18 added to the stem, generally with loss of the characteristic -i-, wherever found. wóyau- and síyá'p'-, both of which lack a characteristic element, employ as vocative the stem with rising accent on the a- vowel: wóyau o DAUGHTER-IN-LAW! and síyá'p' o BROTHER-IN-LAW! (said by woman). This method of forming the vocative is in form practically equivalent to the addition of -á. s'na2 MAMMA! and háik!á 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 whá'szt 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'na into s- (cf. second footnote, p. 8) +ná (vocative of n- in n'xa HIS MOTHER).
derived from the same stem, but employ the vocative form of mother and father respectively. Of other vocatives, k'íw'íyam\textsuperscript{1} o friend! 31.6, 8; 32.4, 6 is the bare stem; hamí 70.5; 71.7, the stem with added characteristic -i-; hindè o mother! daughter! 56.7; 76.10, 13; 186.14 is quite peculiar in that it makes use of the first personal singular ending (-dè) peculiar to nouns with possessive suffix and preceding pre-positive. Only two other instances of a nominal use of -dè without pre-positive or local adverb have been found: mo't'ee my son-in-law! (as vocative) 164.19; and k'wi'naxdè my folks, relations, which otherwise follows Scheme II (e. g., third person k'wi'naxdæ).

The normal pronominal suffix of the third person is -xa; -a is found in only four cases, k'la'sa his maternal grandparent, ha'sa his maternal uncle, t'adá his paternal aunt, and ha'sda his brother-in-law. The first two of these can be readily explained as assimilated from *k'la'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., tadâ and hasdâ) on the other, made it possible for t'adá 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:

\textit{ma'xa wā-himi't} he spoke to his (some one else's) father
\textit{ma'xagwa wā-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:

\textit{k'aba'xagwan} their own son or his (her) own sons
\textit{etadagwan} their own canoe or his own canoes

The final -n of these forms is the indefinite plural -an discussed below (§ 99). Plural (i) -gwan is found also in verb forms (144.12; 150.24).

\textsuperscript{1}k'íyam- is perhaps derived, by derivational suffix -(a)m, from verb-stem kíy- go together with one.
As examples may be taken dagax- HEAD, which follows Scheme II, and wili- HOUSE, dana- ROCK, tibagwa- LIVER, and xaaham- BACK, which follow Scheme III.

A third person plural -dan also occurs, as in dūmhaħ-'wdan HIS SLAIN ONES of 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 -anxeđe'k'; -i't'k' and -ixde'k'). Examples of Scheme II nouns without preceding -x- are:

\[
\begin{array}{llllll}
\text{a-} & \text{is-} & \text{de'k'} \quad \text{my property (though -s' may be secondarily derived from -s'x- or -tx-)} & \text{23.2, 3; 154.18, 19, 20; 158.4} \\
\text{mot'ek'} \quad \text{my son-in-law (152.9) (incorporated mot'-)} & \\
\text{se'lt'ek'} \quad \text{my writing, paint (absolute se' 'l)} & \\
\text{he'lt'ek'} \quad \text{my song (164.16; 182.6) (absolute he' 'l 106.7)} & \\
\text{ts'lt'k'dek'} \quad \text{my meat (44.3, 6; 170.6)} & \\
\text{wila'ut'ek'} \quad \text{my arrow (45.13; 154.18) (absolute wila'u 22.5; 28.1, 2; 77.5)} \\
\text{go'lt'ek'} \quad \text{my bow (154.19; 190.22) (absolute go' 'l)} & \\
\text{la'psdek'} \quad \text{my blanket (absolute la' 'ps 98.14, 15, 19, 21)} & \\
\text{ts'li-xi-maha'lt'ek'} \quad \text{my horse (absolute ts'li-xi-maha'i)} & \\
\end{array}
\]

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., tlela't'k' MY SHINNY-STICK [from tlela']), -i-, -ei- (e. g., ts'lelelt'k' MY EYE [from ts'lelei-]), -n (e. g., sēnt'k' MY SKIN), -m, or -l' (e. g., diiz'at'l't'k'.

\[\text{§ 92. SCHEMES II AND III}\]
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 \(-ä'\) and \(-i'\) respectively. Other forms are:

\[
\begin{align*}
&ts'ele'i \text{ his eye 27.8; 86.7, 9; (cf. 54.6)} \\
&dō^wma'l \text{ his testicles 130.8; 136.5} \\
&xā^l'a'm \text{ his urine} \\
&gwit'i'n \text{ his wrist}
\end{align*}
\]

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:

\[
\begin{align*}
&pā^a'n't' \text{ his liver 120.2, 15} \\
&nō'it' \text{ her teats 30.14; 32.7} \\
&tō'it' \text{ her husband (17.13)} \\
&sō'it' \text{ his discharge of wind 166.8}
\end{align*}
\]

Though the conditions for the loss of a final \(-t'\) are not fully understood, purely phonetic processes having been evidently largely intersected by analogic leveling, it is evident that the proportion \(wit'\) \text{His House: } \(nō'it'\) \text{Her Teats = } s'as'īnī \text{He Stands: } wit' \text{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. \(he'\) \text{Song, but } hel \text{Sing!}). Monosyllabic stems of Scheme III seem to have a rising accent before \(-t'gwa\) as well as in the first person. Thus:

\[
\begin{align*}
lā't'gwa \text{ his own excrement 77.1} \\
tū't'gwa \text{ her own husband (despite } tō'it'') 45.14; (59.16; 60.2); 128.22
\end{align*}
\]

Nouns with characteristic \(-i\) prefer the parallel form in \(-i'x-dagwa\) to that in \(-i'x-gwa\). Thus:

\[
\begin{align*}
&bü'^bini'xdagwa \text{ his own arm, rather than } bü'^bini't'gwa, \text{ despite } bü'^bini't'k' \text{ MY ARM}
\end{align*}
\]

The limitation of each of the two schemes to certain definite phonetically determined groups of nouns (though some probably merely apparent contradictions, such as \(ga'l'-t'ek' \text{ MY BOW and } di'^zal'-t'k'\)

\[1 \text{ -t'k' always requires preceding rising or raised accent. As } ga'l- \text{ bow seems to be inseparably connected with a falling accent (very likely because of the catch in its absolute form), it is, after all, probably a phonetic reason that causes it to follow Scheme II rather than III.}
\]

\[\S \, 92\]
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'ni (as contrasted with -t' and -t'ban) may be inorganic in origin, and intended to support phonetically difficult consonant combinations:

guxda his wife (from *guux-t') 13.2; 43.15; 49.6, like i-lasga' touch it (from stem lasg-)
The -e-, however, of -dek' 32.6 and -de' 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'; third person, -t'.
Reflexive: Third person, -t'-gwa. Plural: First person, -d-a'm; second person, -t'-ban.

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--vü- in hand.

<table>
<thead>
<tr>
<th>Singular: First person</th>
<th>dak'ë over me</th>
<th>waë to me</th>
<th>hawandë under me</th>
<th>haë in my hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second person</td>
<td>dëk'ë</td>
<td>waësë</td>
<td>hAWANDëSë</td>
<td>hAWIdëSë</td>
</tr>
<tr>
<td>Third person</td>
<td>dëk'ëdëda</td>
<td>waëdëda</td>
<td>hAWANDëdëda</td>
<td>hAWIdëdëda</td>
</tr>
</tbody>
</table>

| Plural: First person  | dak'dëm       | wa'dëm    | hawandëm           | hawIdëm       |
| Second person        | dëk'dëbatëm   | wa'dëbatëm| hAWANDëtëm         | hAWIdëtëm     |

| Singular reflexive: Third person | dëk'dagwa | wa't'gwa | hawat'gwa | hawat'gwa |
| Plural reflexive: Third person  | dëk'dagwan | wa't'gwan | hawat'gwan | hawat'gwan |

The apparently double ending -dâëda of the third person of dak'- is not entirely isolated (cf. ha--ye'wa'x-dâëda in their time of returning; he'ëx-dâëda beyond him), but can not be explained. The use of

1It 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 sa-wël being employed in connection with things: san'oda gini'k' he went to him (56.11); 148.6; sörn gua'1 gini'k' he went to the mountain (43.6).
-dagwa and -daba\^n on the one hand, and of -t'gwa and -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'et'an IN FRONT OF THEM 190.13 (but de'eda BEFORE HIM 59.14); x\={a}s'-ogwi't'an BETWEEN THEM (see below, p. 240); w\={a}e't'an TO THEM 160.15. A form in -xa seems also to occur with third personal plural signification: wa'xa ts'ini't's'lanx HE GOT ANGRY AT THEM; dihauxa 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 dalc'de and wade (e. g., no *hadë can be formed from ha-). A number of body-part and local stems take on a noun-characteristic:

haw-an- under (from ha-u-)
x\={a}ham-dë about my waist (from x\={a}-)

The local elements that have been found capable of being followed by pronominal affixes are:

dak'dë over me (56.9; 110.18); 186.4, 5
wade to me (56.15; 60.1; 63.14; 88.13; 150.18; 194.1)
x\={a}hamdë about my waist

gwe\={a}la' under it 190.17

gwe\={a}nda (in Gwenda yu's\={a} = being at its nape, i. e., east of it)
di't'da close in back of him, at his anus 138.2

di\={a}nde behind me (\? = verb-prefix di\={a}- anus, behind + noun-characteristic -n-) (86.9; 138.3; 170.1)
havande under me (71.1, 5, 12)
gelde in front of me, for (in behalf of) me

de\={a}de in front of me (59.14; 124.20)
h\={a}yade around me

he'ed\={a}da beyond him 148.9

ha'nda across, through it
da\={a}l'gwa\=n among themselves 98.2

gwen-ha-ude at my nape; gwen-ha't'gwa in back of his own neck 75.2

di-ha-ude after I went away, behind my back (132.10; 186.8; 192.4)

It is only the different schemes of personal endings that, at least in part, keep distinct the noun x\=oham= BACK and the local element x\=oham- ON BACK, ABOUT WAIST: x\=oham' m HIS BACK, but x\=oham'da ON HIS BACK, AT HIS WAIST; x\=oham'mda ON OUR BACKS and ON OUR BACKS.

§ 93
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., *xaagweldë* BETWEEN MY LEGS), except that *ha-u- UNDER* as pre-positive adds an -a-: *hawa-* (e.g., *hawa-salde UNDER MY FEET*). The various pre-positives found prefixed to nouns with possessive suffixes are:

- **ha-** in
- **hawa-** under
- **dak'-** over
- **dii'-** above
- **dii₃-** alongside
- **al-** to, at
- **de-, da-** in front of
- **xii₃-** between, in middle of
- **qwii-** at nape, east of
- **dzi-** 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'gä EARTH*, however, perhaps for some unknown phonetic reason, does not retain its characteristic -u- before the possessive suffixes (*ha-t'ɡaï IN THE COUNTRY 33.7*, but *ha-t'ɡaïdë IN MY COUNTRY 194.4*) Examples of forms of the type *ha-t'ɡaïdë IN MY HAND* are:

- **ha-dii₃t'ɡwa** in back of him, in his anus (incorporated *dii₃-*) 94.11
- **dii₃-gwaawadë** aside from me (literally, alongside my ribs)
- **dak'-salde** on top of my feet 198.6; (cf. 44.8)
- **hawa-t'ilidë** under my throat
- **dak'-s-iinii'da** over his nose 144.11
- **al-gwaawidam wok'** we have enough of it (literally, to-our-hearts it-has-arrived) 128.1
- **ha-wilikidë** in my house (64.2; 88.18; 120.14)
- **ha-yewaawde** in my returning (= when I return) (124.15)
- **di-delgya'nt'ɡwa** behind himself, at his own anus (72.10)
- **al-waardii't'ɡwan** at one another (literally, to each other's bodies; *wii₃d-i- body*) (96.22; 146.2; 190.19)
ha-sa’lda (thinking) of her (literally, in her footsteps) 142.13
di’-dandë over my ear
di’-ts’eleide over my eyes
ha-dede in my mouth (170.2; 182.17)
gwen-bok’dandë at my nape
xaₐ-s’vinidë resting on my nose (like spectacles)
gwel-s’wādide 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:
xaₐ-s’ogwida’m between us
ha’-vinidë inside of me (73.1; 92.17)
di’-bōwida at my side
da’oldidë close to me (124.9) (cf. adverb da’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’gāₐ-bo’k’dan-da at nape of earth’s neck (= east) 79.6; 102.4
di-t’gāₐ-yu’k!’umāₐ-da at rear of earth’s tail (= west) 146.1; 198.9
ha’-yuwā’-da in earth’s rib (= north) (cf. 194.9)
dāₐ-xi-ts’lekit’s’iɡt’-da alongside water’s backbone (= not far
from shore)
xaₐ-xi-ts’lekit’s’iɡt’-da in middle of water’s backbone (= equally
distant from either shore) 112.4
Ha-yā’l-bā’ls-da in its long (i.e., tall) (bāls) pines (yāl) (= place-
name) 114.9
Di-p’ol-ts’l’l-da over (di’) its red (ts’l) bed (p’ol ditch)
(= Jump-off Joe creek)
Al-dan-k’olo’i-da to its rock (da’n) basket (k’olo’i) (= name of
mountain

Rather difficult of explanation is de-de-wili’-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’olo’i) of independent noun. -da with pre-positives, whether with intervening noun or noun and adjective, consistently demands a falling accent before it.

§ 93
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'ayāda around the rock
- dan da'oldi'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'ya-dana' around the rock
- gel-dana' in front of the rock
- di'nda' 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
§ 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'- 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-waxge'a'n across the creek
han-p'inya' across the fire 168.19
ha'-waxga'n in the creek
ha-ziya' 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-gwal-la'm in the road 62.6; 158.19
ha-s'ugwana in the basket (cf. 124.18)
xx'-s'ama'l halfway up the mountain
xa-gulma'n among oaks
xa°-xo (yá's) (right) among firs (cf. 94.17)
gwel-xi'ya under water 156.19
gwel-t'gā'a down to the ground 176.8
dā'-ts'wa'n by the ocean 59.16
dā'-t'gā'a alongside the field
gwen-t'gā'a east of the field 55.4; 56.4
gwen-waxga'n east along the creek
Gwen-p'unk' place-name (=east of rotten [p'u'n]) 114.14
de-wilt in front of the house (=out of doors) 70.4
dak'-s'ama'l on top of the mountain 188.15
dak'-wilt over the house 59.2; 140.5
dak'-pi'ya' over the fire 24.6, 7
he'-s'ama'l beyond the mountain 124.2; 196.13
al-s'ama'l at, to the mountain 136.22; 152.8; 192.5, 7, 8
hā'ya-p'inya' on both sides of the fire 176.12
hā'ya-s'ama'l on both sides of the mountain 152.2
di-t'gā'a west of the field 55.3
di-waxga'n some distance west along the creek
di-s'ama'l at foot ([?] = in rear) of the mountain
Dī1-dala'm place-name (=over the rock[?])
Gel-yālk' place-name (=abreast of pines) 112.13

¹ Perhaps really Dī-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' ment 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-dâ'nx molhi't' in-ear red 14.4; 15.13; 88.2 (alongside of dâ'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'sal 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
  gid'i (= ga-dî) on, over 49.12
  gid'i' (= ga-di') in back
  gana' u in 47.2; 61.13; 64.4; 110.9
  gada'l among 94.12
  go'a'l to, for, at, from 43.6; 44.4; 55.6; 58.11
  gadâ' by, along 60.1
  gaxâ' between
  gede in front (?) 28.8, 9

and possibly:

  gasal in adverb gasa'lit 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'gâ' gidî upon the land 49.12
  p'iâ' gada'l in between the fire 94.12
  da'n gada'l among rocks
  da'n gadâ alongside the rocks (cf. 60.1)
  wâ'ham-hoidiegwia gadâ' gini'k' he went right by where there was round-dancing (literally, menstruation-dancing-with by he-went) 106.13
  er gana' u in the canoe 96.24; 112.3

§ 96
dola' gana'u in the old tree 24.1  
wa-iwii't'a ga'a'l to the female 15.14  
ga' ga'a'l for that reason 50.2; 124.6; 146.20; 21; 188.6; 194.11  
bixal wi'zin-wii't ga'al ya't he goes every month (literally, month different-every at he-goes)  
da'n gaxa'a between the rocks  
di'a gede' right at the falls 33.13  
Yük'ya'k'wa gede¹ right by Yük'ya'k'wa 188.17

Postpositions may be freely used with nouns provided with a possessive suffix; e. g., elai'k' gada'k' ON MY TONGUE; wii't' gana'u IN HIS HOUSE, cf. 194.7. There is no ascertainable difference in significance between such phrases and the corresponding pre-positive forms, dak'-elade and ha-wili't'da. Sometimes a postposition takes in a group of words, in which case it may be enclitically appended to the first:

ktiyi'x gan'au ba-iqina'xdä 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'a'l above), they have enough individuality to render them capable of being used quasi-adverbially without a preceding noun:

gada'k' s-wii't't' I sat on him  
gadak' tsi'k' tsial'k' de I step on top of it (148.17)  
gidi' gatexwata thereon eating (= table)  
'gidi't'-hi closer and closer (literally, right in back)  
gadä' yeveya'k'w he got even with him (literally, alongside he-returned-having-him) 17.5  
mäl yaxa abu'i dal gede' salmon-spear-shaft only in-house, spear-point thereby 28.7, 9  
gi gana'u I am inside  
gana'u naga't' wili't'k' he went through my house (literally, in he-did my-house [for naga't' see § 69]) cf. 78.5

Other postpositions than those compounded with ga- are:

da'o'l near (cf. da'o-l- as pre-positive in da'o'ldidë near me):  
wili't'k' da'o'l near my house  
wa with (also as incorporated instrumental wa-, § 38) 25.5; 47.5

¹ Yük'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 gada'.
ha-bini in the middle: wili ha'-bini in the middle of the house; ha-be=d-bini noon (literally, in-sun [=day]-middle) 126.21; 186.8
-dis away: eme^dis away from here; dedewili^dadi (possibly outside of) the door 176.6

It is peculiar that mountain-names generally have a prefix al- and a suffix -dis:

al-dauyã'ak'wa-dis (cf. dauyã'ak' supernatural helper) 172.1
al-wila'mxa-dis
al-sawent'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^wila'mxa BEYOND Alwila'mxadies 196.14 and al-dauyã'ak'. 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 without out, which would thus seem to occupy a position intermediate between the other postpositions and the pre-positives. Examples are:

t:telei wa'k'i without eyes 26.14; 27.6
dagak wa'k'i without head
yuk!alx wa'k'i without teeth 57.4
nixa wa'k'i 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 et'e I AM FATHERLESS. wa'k'i is undoubtedly related to wa WITH; the -k'i 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 (=?=nõw DOWN RIVER + demonstrative ga THAT) : nogwa wili BELOW THE HOUSE 76.7; and hinwa' ABOVE, UP RIVER FROM (cf. hinu'UP RIVER) : hi'nwa wili 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 [?] bi'g-z BREAST [?=middle part of body-front]) with characteristic -i-. be-bin SUN'S MIDDLE is compounded like, e.g., t'gan-bok'dan KARTH'S NECK above (§ 93).
§ 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 denoting 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-š'ut'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:

hapxt!it't'a child male (not female) (i.e., boy) 14.1; 156.8
wa-iwi't'a gaš'al yewe'te the-woman to he-turned (i.e., he now proceeded to look at the woman, after having examined her husband) 15.14
mah'a'it'a a'n̂ eš giš na'naga'te 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 wašent'a xeš'ën this his-younger-brother did-it (not he himself)
ktwaš'it'a younger one 24.1; 58.6

§§ 97–98
ā'k'da dāt'a qī'-s-iē vīlsa-ak'-w eit'eē he (āk') (is) handsome (da)
I-but ugly I-am
ū's'i nāzek' aī-ts?!l'tāē give-me my-pipe red-one (implying
others of different color)
waga'tāē di which one?
aga !los'ōt'a v'daga yaxa maha'it'a this (is) small, that but
large (cf 128.7)
v'daga s-ōwē maha'it'a that-one (is) altogether-big (=that one
is biggest)

It seems that, wherever possible, -t'a keeps its ē intact. To prevent
its becoming -da (as in ā'k'da above) an inorganic ā seems to be
added in:

k!ulsa'tāē soft 57.9 (cf. k!u'ls worm; more probably directly from
k!ulsa't' 130.22)

§ 99. PLURAL (-t'an, -han, -klan)

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 -gwam).

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 reci-
procity. 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 per-
sonal 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

§ 99
suffix; the -h- may be a phonetically conditioned rather than morphologically significant element. Examples are:

- **Noun** | **Plural**
--- | ---
-sinsan|sinsanhan
-ts'i'ixi|ts'iixi'han
-yap'la' person|yap'la'han 32.4
-e' canoe|e'han
-wik't'ao' my friend|wik't'ao'mhan
-wits'la'i my nephew|wits'la'i 150.4
-böt'biidit'k' my orphan child|böt'biidit'k'han
-nö'ts!adö neighboring to me|nö'ts!adö'han
-hinde O mother!|hindehan 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: nö'ts!at'an his neighbors. In some cases, as in wa-wi'it'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 the full third personal -t'. -t'a-a-n is perhaps etymologically as well as phonetically parallel to the unexplained dãada of da'k'dãda over him (see §93).

Examples of -t'an are:

- **Noun** | **Plural**
--- | ---
-lomt'i' old man|lomt'i't'an
-mologol old woman|mologol't'an
-wa-iwi' girl|wa-iwi't'an 55.16; 60.2; 106.17
-a'hi' just they (cf. 49.11; 138.11)|a'hi't'an they
-ts'ixi-maha'i horse|ts'ixi-maha'it'an
-lö'si't' his plaything|lö'si't'an
-mö'ut'ã'a his son-in-law|mö'ut'ã't'an their sister's husband 1 150.22; 152.4, 9

1 mor' - 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'i- 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'i- and the plural element -(a)n. Examples of -k'an are:

- t'i'ylā'p'ak'lan men 128.11; 130.1, 7, 25; 132.17
- k'aślā'p'ak'lan women 184.13
- mologolā'p'ak'lan old women 57.14; 128.3, 10 (also mologol'lt'an)
- o'pak'lan her elder brothers 124.16, 20; 134.8; 138.7
- k'aba'zak'lan his, their sons 132.10; 156.14
- ma'xak'lan their father 130.19, 21; 132.12
- t'awāzak'lan their younger sister 148.5
- k'la'sak'lan their maternal grandmother 154.13; 156.8, 15, 18, 21

§ 100. DUAL -di

The suffix -di(-di'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 denoting terms. Examples illustrating its use are:

- gōwmd'i'l we two (restricted from gōw'm we)
- gadil gōw'm ìhēmixinigam we two, that one and I, will wrestle (literally, that-one-and-another [namely, I] we we-shall-wrestle) 30.5
- sqi'sidi'l two coyotes (literally, coyote-and-another [coyote])
- wāxad'i'l two brothers (lit., [he] and his younger brother) 26.12
- sgisi ni'xadi'l Coyote and his mother 54.2

The element -di doubtless occurs as an adjective stem meaning ALL, EVERY, in aldī ALL 134.4 (often heard also as aldī 47.9; 110.16; 188.1); hadedīt'a EVERYWHERE 43.6; 92.29; and hat'gādādīt'a IN EVERY LAND 122.20.

§ 101. -wi'e every

This element is freely appended to nouns, adjectives, and adverbs, but has no independent existence of its own. Examples are:

- be'wi'e every day (literally, every sun) 42.1; 158.17
- xū'ęnwii every night (xū'ę'n, xū'ę'ne' night, at night)

1 It was found extremely difficult, despite repeated trials, for some reason or other, to decide as to whether -k'i- or -q- was pronounced. -k/i- and -k/an may thus be really -q- and -qu.
bixal wi'ınwi'ės ba-ii-wilti'is month comes after month (literally, moon different-each out-goes)
gwel-wāk'wiwi'ė every morning (gwel-wāk'wiwi'ė morning 44.1)
da-hō̃xawī'ė every evening
ha-be'hiiniwi'ė every noon
k'aiwi'ė everything, something (k'a-, k'ai- what, thing) 180.5, 6
ada't'wi'ė everywhere, to each 30.12; 74.2; 120.13

As illustrated by k'aiwi'ė, the primary meaning of -wi'ė 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'wi'ė sometimes, in regard to some 57.12
xā'newi'ė sometimes 132.25

With pronouns it means too, as well as others:

gī'wi'ė I too
mā'awi'ė you too 58.5

Like -di'l, -wi'ė 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'i'n every, different 49.1; 160.20; 188.12.

§ 102. DEICTIC -a'

It is quite likely that the deictic -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'b'a' you ([I am ——,] but you ——) 26.3; 56.5; (cf. 49.8, 13)
maha'ii'a' big indeed
ga'z a' ge wi'iti' 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'a' but nowadays (so it was in former days, but now things have changed) 50.1; 194.5
gē'-hi gī'aa' yoklōya'ę'n that-far I-for-my-part know-it (others may know more) 49.13; 154.7
p'ī'ma' gayaa a he ate salmon (nothing else.

§ 102
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, gi 56.10; 122.8; second person, ma' (mā') 26.7; 98.8; third person, āk' 27.5; 156.12. Plural: First person, gō'm 30.5; 150.16; second person, māp'; 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'as JUST THEY (= āi yā'as) 160.6; ā'ya THEY (= āi-ē'as) 49.11. When unaccompanied by one of these, it is generally pluralized: ā'i'ian (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 (see §101), the deictic -a' (see §102), or the post-positive particles yā'a and enclitic -hi and -si (see §114, 1, 2, 4):

mayā'a just you 196.2
ma'hi you yourself
āihi' they themselves 104.13 (cf. 152.20)
gi's'ī'ī 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'z or -da'zī ( = -da'z + -hi) to the forms given above:

gi'da'z(i) only I
mā'inda'z(i) you alone
āk'inda'z(i) all by himself 61.7; 90.1; 142.20; 144.6
gō'mda'z(i) we alone
māp'da'z(i) you people alone
āida'z(i) they alone 138.11

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The third personal pronouns are not infrequently used with preceding demonstratives:

ha'aga (or i'daga) ak'da'x that one by himself (ak' used here apparently as a peg for the suffixed element -da'x by one's self) ha'a'it'an and i'da'a'it'an those people

ha'a- and i'da-, 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 substantive stem ais'- HAVING, BELONGING, PROPERTY: a-is'de'k' IT IS MINE 23.2; 154.18, 19, 20; a-is'de'z 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, i'da-, and ha'a-e. 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; alt this here 110.2; 188.20
Near second. i'daga that 116.22; i'dalik that there 55.16
Near third. ha'a-e'ga that yonder 186.5; haa'e'li 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'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

i'da- (independently 46.5; 47.5; 192.6) seems to be itself a compound element, its first syllable being perhaps identifiable with i- HAND. i'da'a'it'an and ha'a-e'a'it'an, referred to above, are in effect the substantive plurals of i'daga and ha'aga. ha'a-e- as demonstrative pronoun is doubtless identical with the local ha'a-e- YONDER, BEYOND, found as a prefix in the verb.

§ 104
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 *v’daga* and *hā’æga* with special 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:

\[ a’ga sgi’si \text{ this coyote 108.1} \]
\[ v’daga yapla’ that person \]
\[ ga ʔalṭl all that, all of those 47.12 \]

A demonstrative pronoun may modify a noun that is part of a local phrase:

\[ v’daga he’ez’sī₉₉ma’l beyond that mountain 122.22; 124.1 \]

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’e-*. 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’e-, however, are never compounded with *ge*, as are *a-, īda-, and hāa*- with its pronominal correspondent *ga*; a fifth adverbial stem of demonstrative force, *me*- (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*- here 112.12, 13; 194.4; *me*- hither
Near second. *v’demez* right around there 46.15
Near third. *he’e’emez* yonder 31.13

Of these, *me*- , the correlative of *he’e-*, can be used independently when followed by the local -al: *me’al* on this side, hitherwards 58.9; 160.4. *he’e*- away, besides frequently occurring as a verbal prefix, is found as a component of various adverbs:

\[ he’da’dara”, he’dara” over there, away from here, off 46.8; 194.10 \]
\[ he’e’ne” then, at that time 120.2; 146.6; 162.3 \]
\[ he’e’dar’ on that side, toward yonder \]

§ 104
me'- can be used also with the adverb ge of indefinite reference preceding; the compound, followed by di, is employed in an interrogative sense: *gemesdi* where? when? 56.10; 100.16; 190.25. The idea of direction in the demonstrative adverbs seems less strong than that of position: *he'emese baxem* he comes from over there, as well as *he'emese gini'e* he goes over there. *me*- and *he*- (hå'-), however, often necessarily convey the notions of toward and away from the speaker: *me'yewe* he came and went back and forth.

Demonstrative adverbs may take the restrictive suffix -da'x or -daba'x (cf. -da'x with personal pronouns, §103):

\[
\begin{align*}
eméda'x & 114.4, 5  
emédaba'x & 114.14  
\end{align*}
\]

§ 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 tiumu'xi 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:

\[
\begin{align*}
nek'-di & 46.15; 86.4; 142.9  
k'a'-di & 47.9; 60.11; 86.8  
\end{align*}
\]

k'a'i . . . di occurs with post-positive ga'al:

k'a'i ga'al di' what for? why? 71.15; 86.14; 98.8

As indefinites, they are often followed by the composite particle -si'wa'k'di:

\[
\begin{align*}
nek'-si'wa'k'di & I don't know who, somebody 22.8  
k'ai-si'wa'k'di & I don't know what, something 96.10  
\end{align*}
\]

As negative indefinites, nek' and k'ai are preceded by the negative adverb a'nii or wede, according to the tense-mode of the verb (see § 72):

§ 105
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\(a'ni\) ne'1c nobody 63.4; 90.8, 25
\(a'ni\) k'a'i nothing 58.14; 61.6; 128.23
\(we'de\) nek' it's 'ilk' nobody will give it to me (cf. 98.10)
\(we'de\) k'ai it's 'dam do not give me anything

With the post-nominal -\(w\)vi' every, k'ai forms k'ai\(wi'\)v every, something. No such form as *nek'\(w\)vi', however, occurs, its place being taken by aldil, ald\(l\) 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:

\(gwi'di\) naga\(iti'\) 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\(w\)a\(k\)'di (cf. 190.4):

\(gwis'i\(w\)a\(k\)'di\) in some way, somewhere 54.7; 96.8; 120.21 (also gwi'hap' somewhere)

as negative indefinite, it is preceded by \(a'ni\) or wede:

\(a'ni\) gwi in no way, nowhere 23.6; 62.11; 192.14
\(we'de\) gwi na\(l\)'t do not go anywhere!

As indefinite relative is used gwi'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;

§ 106
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:

\[ ts'ixi-maha'it'ek' \text{ dog-big-my (=my horse)} \]

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:

- \[ wa-iwitt' da \text{ girl pretty 55.7; 124.5} \]
- \[ yapla dalld' \text{ person wild 22.14} \]
- \[ sqii si da-sga'xit' \text{ Coyote sharp-snouted 86.3, 20; 88.1, 11} \]
- \[ p'im xu'm yelex debis'z salmon dry burden-basket full (=burden-basket, full of dry salmon) 75.10 \]

Rarely does it happen that the adjective precedes, in which case it is to be predicatively understood:

\[ gwala yapla' \text{ many (were) the people 180.16 (but ya'p'la gwala' people many 194.10)} \]

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:

\[ yu'kalx (1) wa'k'i' (2), ga (3) gosal (4) deligia'lt'i (5) gwais (6) [as they were] without (2) teeth (1), for (4) that (3) [reason] they brought them as food (5) intestines (6) 130.22 \]
\[ masi'z (1) al-na'nda'e'n (2) naga-ida'z (3) [do] you in your turn (1) [dive], since you said (3) "I can get close to him" (2) 61.9 \]

§ 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 § 107
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'-*du'l* big-headed

2. **dã'-**
   - dã-*molhi't* red-eared 14.4; 15.12; 96.13
   - dã-*ho'k'wal* with holes in ear 166.13, 19
   - dã-*maha'i* big-cheeked

3. **sin'-**
   - sin-*ho'k'wal* with holes in nose 166.13, 18
   - sin-*hu'sgal* big-nosed 25.1; 27.5, 13; 28.6
   - sin-*p'i'l* flat-nosed

4. **de'-**
   - de-*t'ügü't*, de-*t'ügü'u* sharp-pointed 74.13; 126.18
   - de-*bü't'p* dull
   - de-*winii't* proceeding, reaching to 50.4

5. **da'-**
   - da-*sga'xi(t')* long-mouthed 15.13; 86.3; 88.1, 11
   - da-*guli'* short 33.17
   - da-*ho'k'wal* holed 176.7
   - da-*maha'i* big-holed 92.4
   - da-*t'os' * small-holed

6. **gwen'-**
   - gwen-*du'l* slim-necked
   - gwen-*t'ge'm* black-necked 196.6

7. **i'-**
   - i-*to'p'al* sharp-clawed 14.4; 15.13; 86.3
   - i-*ge'wo*z* crooked-handed
   - i-*lo'k* ugly-handed

8. **xã'-**
   - xã-*maha'i* big-waisted, wide
   - xã-*du'l* slim-waisted, notched 71.15; 75.6

9. **di'-**
   - di-*k'elix* conceited

10. **dii'-**
    - dii-*maha'i* big below, big behind
di-ka'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-tla'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'1'1' red
   al-t'gw'i's' white 55.2; 188.11
   al-sgenhi't black 92.19
   al-gwa'si yellow
   al-t'gis'a'mt' green (participle of t'gis'i'm it gets green)
   al-k'iyy'i-x-nat' blue (literally, smoke-doing or being)
   al-k'ok'to'k' ugly-faced 47.2; 60.5
   al-t'es'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'olo-i-ts'1'1' red-cheeked
gwit'ti-tla'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-pl'isya', § 95). In:
   xao-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:

   § 108
ho's'au getting older
maha'\i big 23.1; 74.15; 146.3
bus' wiped out, destroyed, used up 42.2; 140.19
da good, beautiful 55.7; 58.7; 124.4; 146.6
t'\a hot 57.15; 186.25
p'\u'n rotten 140.21
yo't'i alive ([?] yo't being + enclitic -\ha) (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-sqa'xi and de-ts'\i\u'\i\i't' above, § 107):

maha'\i and maha'it' big
al-gwa'si and al-gwa'sit' yellow

1. -(t)i'. 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'es\i't' little-eyed 94.3
(? ) ha'nt' half ([?] cf. han- through) 146.22; 154.9; 192.7
tlott' one-horned 46.7; 47.7; 49.3.
d\a-n-molhi't red-eared 14.4; 15.12; 88.2; 96.13
de-ts'\i\u'\i\i't' sharp-pointed 126.18
k\u'lsa't' soft (food) (cf. k\u'ls worm) 130.22
p!ala'k'\u-goy\u'\u'it' e\ti\i e\ti I am story-doctor (cf. goyo' shaman)

2. -al. Examples of adjectives with this suffix are:

\i-ts'\i\u'\u'\u'al sharp-clawed 14.4; 86.3 (cf. de-ts'\i\u'\i\i't' sharp-pointed;
   for -p'-: -g- cf. § 42, 1, 6)
tl'\i'al thin
(?) dehal five ([?] = being in front ? ) 150.19, 20; 182.21
s'\i\u'-ho'k\u'wal with holes in nose 166.13, 18; (56.9; 166.19; 176.7)
s'\i\u-h\u'sgal big-nosed 25.1; 27.5, 13; 28.6
h\i'p'al flat
\i mi'\u xal how much, how many (used interrogatively and relatively)
   100.8; 182.13
mixa'\u'ha numerous, in great numbers 92.28; 94.1

¹ A few adjectives in -am (= -an) are distinctly nominal in appearance; bita'm HAVING NOTHING; zila'm
SICK (but also as noun, DEAD PERSON, GHOST). It hardly seems possible to separate these from nouns like
he\d'a'm BOARD; te\i\i'\i a'm RAIL.
² Cf. American Anthropologist, n. s., vol. 9, p. 266.

§ 108
3. -di. A few adjectives have been found with this suffixed element: 
  hapsdi' little 192.6; hā'p'di 24.12; 60.15; 61.5 (cf. hāa'pxi' child 128.16) 
  yap'a daldi' wild man (cf. dal- in the brush) 22.14 
  gama'xdi' raw 94.3, 6; 144.5; 182.4 
  gweldi' finished (cf. gwel- leg) 34.1; 79.8; 94.18 

4. -ts!- (-e's). In a small number of adjectives this element is doubt-
   less to be considered a suffix: 
  i'ltslak' 'w bad, ugly 182.1; 186.22; 198.4 (cf. pl. il'a'lsak' 'w) 
  s'in-p'it'l's flat-nosed 
  xā-xdi'lsa1c slim-waisted 71.15; 75.6 (cf. inferential passive xā-i-
   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: 
  gūns blind 26.14 
  bāls long 14.5; 33.16; 158.1 
  s'uñas' 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'geya'px round (cf. al-t'geye'px it rolls) 
  sal-ts!luna'px straight 
  da-ts!āmx sick 90.12, 13, 21; 92.5; 150.16 
  al-t'mila'px smooth 
  da-p'o'a'x crooked (cf. p'owoex it bends) 
  ī-ge'wa'tx 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 
reflective possessive forms in -t'gwa (-xagwa), or to palatalized 
pasive participial forms in -'k'w, themselves derived from 
nouns (see § 77), partly by the addition of -gwa't' to nouns in 
§ 108
their pre-pronominal form (-x). The fact that these various
-gwa'k' 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 participle -k'w. The
-gwa- of forms in -x-gwa'k' is not quite clear, but is perhaps to
be identified with the comitative -gwa- of the verb. An
adjective like yu'k'tal-x-gwa'k' TEETH-HAVING presents a parallel-
ism to a verbal participle like dak'-lim-x-gwa-de' I AM WITH
IT FALLING OVER ME, see § 46) that is suggestive of morphologic
identity. Examples of -gwa'k' adjectives are:

Waya'uxagwat' having daughter-in-law 56.10 (cf. Waya'uxagwa
her own daughter-in-law)
T'gwana't'gwaw slave-having (cf. T'gwana't'gwa his own slave)
Da't'enel'a't'gwaw' Squirrel-Tongued (literally, in-mouth squirrel
his-tongue having [name of Coyote's daughter]) 70.6; 72.4;
75.11
Ni'uxagwat' mother-having (cf. ni'zak'w mothered)
Me_xagwat' father-having (cf. me_xak'w fathered)
K'e'tle'p'igigwat' wife-having (cf. k'e'tle'p'igik'w wived 142.6)
Gwaw'agwat' wife-having 128.4 (cf. Gwaw_x-de'k' my wife 142.9)
Dagaxgwa't' head-having (cf. Da'gax-dek' my head 90.13)
Ts!u'lexgwa't' having Indian money (cf. Ts!u'lix Indian money
14.13)

A form with -gwa'k' and the copula ei- (for persons other than the
third) takes the place in Takelma of the verb have:

Ts!u'lexgwa't' ett'e I have money (literally money-having or
moneyed I-am
Ts!u'lix-gwa't' he has money

Aside from the fact that it has greater individuality as a distinct
phonetic unit, the post-positive wa'k'-te WITHOUT is the mor-
phologic correlative of -gwa'k' HAVING:
Dagax wa'k'-te' head without you-are
da'gaxgwa't' ett' head-having you-are

Similarly:
Ni'xa wa'k'-te' ett'e mother without I-am
Ni'uxagwat' ett'e mother-having I-am

1 The fact that this form has a body-part prefix (da- MOUTH) seems to imply its verbal (participial)
character. -gwa'k' in it, and forms like it, may have to be analyzed, not as -gwa'k' his own + -k', but rather
as -k' his =gwa'k' HAVING + -k'. In other words, from a noun-phrase t'en el'd'a (older el'd'o) squirrel
MS. TONGUE may be theoretically formed a comitative intraspective with prefix: *da'en-el'd-o-gwa'k' 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 -'tgwa' and -'tgwa' on one line: cf. also 73.15.
7. -imikli. A few adjectives have been found ending in this suffix formed from temporal adverbs:

hopënimikli (men) of long ago 168.1 (hopën long ago 58.4, 7, 11)
böënimikli (people) of nowadays (böu 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-wiili'ikli belonging to good folks, not "common" (from ha-wili in the house)
xăa-bëmikli' being between sticks
ha-bami'sikli' dwelling in air
xăa-da'niklikli belonging between rocks (e.g., crawfish)
dak'-pi'kylaki staying always over the fire
ha-pi'kylaki belonging to fire

-ixi. A few adjectival forms in -ixi, formed from local phrases, seem to have a force entirely coincident with adjectives in -(i)k'i:

ha-pi'ya'xi belonging to fire
ha-xi'ya'xi mink (literally, always staying in the water [from ha-xiya' in the water 33.4])

10. -iyixi. This suffix seems to be used interchangeably with -(i)k'i and -ixi. Examples are:

ha-bami'sai'ixi belonging to the air, sky
xăa-da'ni'ti'xixi belonging between rocks
ha-wili'ti'xixi belonging to the house
ha-xiya'itixi belonging to the water
ha-pi'ya'itixi belonging to fire

The following forms in -iyixi, not derived from local phrases, doubtless belong with these:

gëtixi belonging there 160.24
goyoti'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:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>de-bü'es 49.14; 116.5</td>
<td>de-bü'ba'x (dissimilated from -bü'ba'x) 122.17</td>
</tr>
<tr>
<td>vîltsalak'w 182.1; 198.4</td>
<td>ül'alsak'w (dissimilated from ül'als'-)</td>
</tr>
<tr>
<td>maha'i large 23.1; 74.15</td>
<td>mahmi 32.15; 49.10; 130.4</td>
</tr>
</tbody>
</table>

§ 109
Of these, the first two are clearly verbal in type. The probably non-agentive -x of de-bü'tba'x (also singular de-bü'tux from *de-bü'tuk!-x [cf. de-bü'tuk!in I SHALL FILL IT]) and the apparently passive participial -ak"w of ülts!ak"w strongly suggest that the first two of these adjectives are really adjectivally specialized verb-forms. mahmi is altogether irregular in type of reduplication. tlosö'w 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'losö'w's'gwat' HE HAS SMALL CHEEKS. In regard to t'at' 170.18, the plural of t'at' 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, hosö'w 156.11; 158.11; similar is du'tü 58.10 which seems to be the plural of da PRETTY 58.8. yo't'i ([?] yot'-hi) ALIVE forms the plural yot'i'hi ([?] yot'-hi) 128.16. Examples of the peculiarly adjectival plural in -(t')it' are:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>al-t'geya'px round</td>
<td>al-t'geye'p'it'</td>
</tr>
<tr>
<td>al-t'mila'px smooth</td>
<td>al-t'milü'p'it'</td>
</tr>
<tr>
<td>sal-ts!una'px straight</td>
<td>sal-ts!una'nu'pit'</td>
</tr>
<tr>
<td>sal-tla'i' narrow</td>
<td>sal-tla'gat'it'</td>
</tr>
<tr>
<td>da-p'o'a'x crooked (= -ak!-x)</td>
<td>gwit'p'o'o'k'it' c r o o k e d -armored</td>
</tr>
<tr>
<td>v-ge'wa'x c r o o k e d -h a n d e d ( = -ak!-x; cf. aorist geve-k!aw- carry [salmon] bow-fashion)</td>
<td>v-ge'we'k'it'</td>
</tr>
<tr>
<td>de-ts!ügiü't' sharp-pointed</td>
<td>de-ts!ügiühit'</td>
</tr>
<tr>
<td>de-t'üliü'p' dull</td>
<td>de-t'üliü'p'it'</td>
</tr>
<tr>
<td>al-ts!ü'l red</td>
<td>da'k!oloi-ts!ü'lit'it' he has red cheeks</td>
</tr>
<tr>
<td>al-t'guü's' white 55.2; 188.11</td>
<td>da'k!oloi-t'guü's'it' he has white cheeks</td>
</tr>
<tr>
<td>al-t'ge'm black 13.3; 162.4</td>
<td>da'k!oloi-t'ge'net'it' he has black cheeks</td>
</tr>
<tr>
<td>bäl's long 14.5; 15.12, 15</td>
<td>s'ínixda't'an bäl'la'sit' their noses are long</td>
</tr>
</tbody>
</table>
That these plurals are really frequentative or distributive in force is illustrated by such forms as *da'k!oloi-ts* 'li'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

<table>
<thead>
<tr>
<th>Number</th>
<th>Form(s)</th>
<th>Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>mi'sga</em></td>
<td>13.2; 192.8; <em>mi'is</em></td>
</tr>
<tr>
<td>2</td>
<td><em>ga'plini</em></td>
<td>22.7; 110.11</td>
</tr>
<tr>
<td>3</td>
<td><em>xi'bin</em></td>
<td>55.7; 12; 116.1</td>
</tr>
<tr>
<td>4</td>
<td><em>gamaq</em>m</td>
<td>148.5; 184.17</td>
</tr>
<tr>
<td>5</td>
<td><em>dehal</em></td>
<td>150.19, 20; 182.21</td>
</tr>
<tr>
<td>6</td>
<td><em>ha'imi's</em></td>
<td>150.12</td>
</tr>
<tr>
<td>7</td>
<td><em>ha'iga'm</em></td>
<td>188.17</td>
</tr>
<tr>
<td>8</td>
<td><em>ha'ix</em></td>
<td>150.14</td>
</tr>
<tr>
<td>9</td>
<td><em>ha'iga</em></td>
<td>150.14</td>
</tr>
<tr>
<td>10</td>
<td><em>ixd'il</em></td>
<td>13.1; 150.5; 182.22</td>
</tr>
<tr>
<td>11</td>
<td><em>ixd'il mi'sga</em></td>
<td><em>gada</em>'k'</td>
</tr>
<tr>
<td>12</td>
<td><em>yaplami's</em></td>
<td>182.23</td>
</tr>
<tr>
<td>13</td>
<td><em>xi'n ixd'il</em></td>
<td>30.</td>
</tr>
<tr>
<td>40</td>
<td><em>gamaq'm</em></td>
<td><em>ixdi'l</em></td>
</tr>
<tr>
<td>50</td>
<td><em>dehal</em></td>
<td><em>ixdi'l</em></td>
</tr>
<tr>
<td>60</td>
<td><em>ha'imi's</em></td>
<td><em>ixdi'l</em></td>
</tr>
<tr>
<td>70</td>
<td><em>ha'iga'm</em></td>
<td><em>ixdi'l</em></td>
</tr>
<tr>
<td>80</td>
<td><em>ha'ix</em></td>
<td><em>ixdi'l</em></td>
</tr>
<tr>
<td>90</td>
<td><em>ha'igo</em></td>
<td><em>ixdi'l</em></td>
</tr>
<tr>
<td>100</td>
<td><em>teimi's</em></td>
<td>23.2, 4, 9, 12, 13</td>
</tr>
<tr>
<td>200</td>
<td><em>gamaq'm</em></td>
<td><em>teimi's</em></td>
</tr>
<tr>
<td>300</td>
<td><em>xin teimi's</em></td>
<td>200.</td>
</tr>
<tr>
<td>400</td>
<td><em>gamaq'm</em></td>
<td><em>teimi's</em></td>
</tr>
<tr>
<td>1,000</td>
<td><em>ixdi</em>dan <em>teimi's</em></td>
<td>1,000.</td>
</tr>
<tr>
<td>2,000</td>
<td><em>yaplami's</em></td>
<td><em>teimi's</em></td>
</tr>
</tbody>
</table>

*mi'sga* is the usual uncompound form of one. In compounds the simpler form *mi's* (stem *mits!-*) occurs as the second element:

- *ha'imi's* six (= one [finger] in the hand)
- *yaplami's* twenty (= one man)

1 Often heard as *ga'plini* 55.2, 5.
Of the two forms for two, \( gā'płini' \) seems to be the more frequently used, though no difference of signification or usage can be traced. \( gā'płini' \) two and \( xi'bini' \) three are evident compounds of the simpler \( gā'm \) and \( xi'n \) (seen in \( ha'xi'n \) eight) and an element \( -bini' \) that is perhaps identical with \( -bini' \) of \( ha'-'bini' \) in the middle. \( gamga'm \) four is evidently reduplicated from \( gā'm \) 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 to explain \( dēhal \) five as an adjectival form in \(-al\) derived from \( de'\) in front. The numerals six, seven, eight, and nine are best considered as morphologically verbs provided with the compound prefix \( ha're- \) 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 \( ha'\text{igo'} \) 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. \( i'xdil \) ten is best explained as compounded of \( i-x- \) hand (but why not \( iūx- \) as in \( iūx-de'k' \) my hand?) and the dual \(-di'l \), and as being thus equivalent to two hands.

It thus seems probable that there are only three simple numeral stems in Takelma, \( mi'ti' \) one, \( gā'tem \) two, and \( xi'n \) three. All the rest are either evident derivations from these, or else (\( dēhal \) probably and \( i'xdil \) 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. \( ga'a'l \) thereto may be used instead of \( gada\text{\'}k' \) over. Twenty is one man, i.e., both hands and feet. One hundred can be plausibly explained as equivalent to one male person. The other tens, i.e., thirty to ninety inclusive, are expressed by

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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 ixdl* 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 (*tteimi’s*), the numeral adverbs (*xin* instead of *xi’n t* in three hundred) preceding *tteimi*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 *tteimi’s*; e.g., *dehaldan ixdl* *tteimi’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-iwi’ t’an girls 56.11
- mologolā’p’a gā’plini old-woman two 26.14 (mologolā’p’ak!an old women 138.10)
- hā’p’da gā’plini his child two 154.17 (hā’p’eda 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 -un) to *gā’m* two and its derivative *gamga’m* four; -t, to *xin* three; -da’n, to other numerals (-ada’n, to those ending in -m and -ts! = -s). *hāzgā’m* seven and *hāxi’n* eight, it will be observed, do not follow *gā’m* and *xin* in the formation of their numeral adverbs, but add -(a)da’n.

It is not impossible that *mūizx* in *mūizxda’n* once is genetically related and perhaps dialectically equivalent to *mūi’s*-, but no known grammatic or phonetic process of Takelma enables one to connect them. *hāziγo’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 (*hāziγo*) THAT (go) 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’m* in two places
- *ha-gamgama’n* 176.2, 3 in four places
- *ha-hāziγo’gada’n* in nine places

§ 111
Cardinals with prefixed *ha-* are also found, apparently with an approximative force, e. g., *ha-dehhal* 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:

- *gi1da't' in my direction (gi 1)*
- *wadēdat' from my side (wadē to me)*
- *ada't' on, to this side 112.17; 144.2*
- *t'dada't' in that direction, from that side (t'da- that)*
- *hā'azda't' from yonder (hā'az- that yonder)*
- *gwi'dat' in which direction? 190.18 (gwi how? where?)*
- *geda't' from there 144.8*
- *eme'zdat' from here*
- *me'zda't' hitherwards 32.10, 11; 55.3 (me'- hither)*
- *he'zdat' thitherwards (he'- away)*
- *nōu'da't' from down river 23.9 (nōu down river)*
handa't' (going) across (han- across) 30.4; 31.16
hã'ndada't' from across (the river) (ha'nda across it) 112.17; 114.17
habamda't' from above (ha- in + bom- up)
haxiya'dat' from water on to land (ha-xiya' in the water)
dak'-wili'dat' from on top of the house (dak'-wili over the house)
27.5; 62.5
gwen-t'gã'- bo'k'dandada't' from the east (gwen-t'gã'-bo'k'danda east) 144.23; (cf. 146.1)

More special in use of -dat' are:

honõxdat' last year (honõx some time ago)
deve'nxada't' day after to-morrow (dewe'nx to-morrow)
deda't' 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:

hõ'xa' yesterday 76.9; 98.21
da-hõ'xa' this evening 13.3; 16.15; 63.8; 78.4
dabalni'xa for a long time (cf. bãl-s long and lep'n'i'xa in winter) 54.4; 108.16
yã'xa continually, only, indeed (cf. post-positive yã'a just) 54.5; 63.3; 78.10
deve'nxa to-morrow 77.14; 112.15; 130.17; 194.1
dap!a'xa toward daylight, dawn 45.4
de' exa 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'n'i'xa in winter 162.20; 176.15
de-bixi'msa ([?J-t-xa) in spring ([?] cf. bi'xal moon)
da-yõ'ga'mxa in autumn 186.3
ts'il'sa ([?]t-xa) at night 182.20
xamõ'ixa by the ocean (cf. xam- into water) 21.1; 55.1
(?) bõ'-nõxa-da's soon, immediately (cf. bõ' now and ne's well! or na-1 do) 90.10; 108.2
(?) da'sma'xau far away (for da's- cf. da's-o'y near) 14.3; 188.21; 190.6

In lep'n'i'x 90.6, a doublet of lep'n'i'xa, -xa appears shortened to -x; this -x may be found also in honõx some time ago (cf. hon'o'c 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

§ 112

1 See Appendix A, p. 290.
catch intervening between the suffix and the stem. Etymologically -ne may be identical with the hortatory particle ne* well, let (us) ——.

<table>
<thead>
<tr>
<th>Adverb</th>
<th>Temporal</th>
</tr>
</thead>
<tbody>
<tr>
<td>he*ne-</td>
<td>he<em>ne</em> then, at that time</td>
</tr>
<tr>
<td></td>
<td>45.6; 49.14</td>
</tr>
<tr>
<td>ge</td>
<td>ge<em>ne</em> so long</td>
</tr>
<tr>
<td></td>
<td>92.10; 198.9</td>
</tr>
<tr>
<td>me*</td>
<td>me<em>ne</em> at this time</td>
</tr>
<tr>
<td></td>
<td>24.14 (cf. also ma*nai around</td>
</tr>
<tr>
<td></td>
<td>this time 178.4)</td>
</tr>
<tr>
<td>e<em>me</em></td>
<td>eme<em>ne (yā</em>a-hi) (right) here</td>
</tr>
<tr>
<td></td>
<td>([?] = now) 190.23</td>
</tr>
<tr>
<td>gwi</td>
<td>gwi*ne some time (elapsed),</td>
</tr>
<tr>
<td></td>
<td>how long? 44.2; 48.9; 148.7</td>
</tr>
</tbody>
</table>

To this set probably belong also:

| xū*ne', xūu*ne' at night, night | 45.3; 46.12; 48.10; 160.22 |
| bē*ne' by day 166.2 (cf. bē sun, day) |
| hop!ē*ne long ago 58.4; 86.7, 9; 192.15; 194.4 |
| xū*newi* sometimes 132.25 |
| bō*ne now, yet 130.23 (cf. bō* now) |

v*ne', which the parallelism of the other forms in -ne' with de, demonstrative stems leads one to expect, does not happen to occur—but probably exists. Curiously enough, he*ne not infrequently may be translated as like, particularly with preceding k'ai (§ 105):

| k'ai he*ne bēm something like wood 186.11 |
| k'ai gwala he*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*gwada some distance down river 54.2 (cf. nō* down river and nō*gwaxa 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', perhaps to be identified with the -da* of subordinate verb-forms:

| bō*nēxada immediately 90.10, 12; 108.2 |
| he*(da)da* away from here 92.5; 172.5; 194.10; 196.11 |
| gwel-wāk'wi* early in the morning 44.1; 63.9; 77.14; 190.1 seems to be a specialized verb-form in -k'i* if, whenever. It is possible that there is an adverbial -t* suffix:
| gwel'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 poly-syllables:

\[ \text{da}^\circ \text{o}'l \text{ near 100.15; but da}^\circ \text{o}'l \text{'i} \ (= \text{da}^\circ \text{o}'l[t'] + -hi) \ 136.7 \]

§ 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:

- \( n\text{đ}^u \) down river 17.9; 63.1; 124.15
- \( n\text{đ}^u\text{w}s' \) next door ([? related to \( n\text{đ}^u \)] 17.4; 188.2
- \( \text{hina}'u \) up river ([? compounded with \( n\text{đ}^u \)] 22.7; 23.1; 61.13; 192.14
- \( \text{da}^\circ -o'l \) near (cf. -t', § 112, and see § 93) 100.15; 102.6; 126.2
- \( \text{dihau}(y\text{â}'a) \) last of all (see § 93) 120.18
- \( y\text{t}^\text{t}i\text{wa} \) far off 48.8; 192.1
- \( \text{aba}'i \) in the house (cf. § 37, 14) 28.8; 43.13; 140.5
- \( \text{hâ}^\text{a}'s\text{ya}' \) on both sides, mutually (cf. § 37, 5) 172.10; 176.6

2. Temporal adverbs:

- \( b\text{ö}^u \) now, to-day 49.13; 50.1; 56.11; 61.11
- \( \text{ha}'\text{wi} \) still, yet (cf. § 37, 9) 78.1; 126.21; 192.8
- \( b\text{ö}^u\text{ne} \text{ hawi } \) soon 128.18
- \( \text{ha}'\text{wi} \text{ bö}^u\text{ne}^e \) soon 128.18
- \( \text{o}\text{l}o'm \) (\( \text{ulu}'m \)) formerly, up to now 43.11; 63.1; 71.15; 166.2
- \( \text{hemdi}^i \) when? 132.24; \( \text{a}'\text{ni}^e \text{ hem} \) never
- \( \text{mi}' \) now, already (often proclitic to following word) 22.4; 63.1; 190.9
- \( \text{ganê} \) 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 \( \text{lå}^\text{u}^\text{hi} \)- **become.** Compare such English substantivized temporal phrases as **afternoon.** Examples are:

- \( \text{sama}'\text{xa} \text{ lå}^\text{p}^\text{k}' \) in-summer it-has-become 92.11
- \( \text{haye}'\text{wa}'\text{xdå}^\text{o}'\text{da} \text{ lå}^\text{o}'\text{le}' \) in-their-returning it-became (=it became time for them to return) 124.15
- \( \text{habebini} \text{ diha}'\text{uda} \text{ lå}^\text{o}'\text{hi}'\text{a}^e \) noon after-it when-it-became (=when it was afternoon) 186.8

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3. Negative and affirmative adverbs:

- hit' no 134.19, 21
- ha'-u yes 24.13; 64.1; 170.12
- a'ni° 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
- nî° not? (with following subordinate): s'-nî° naga' shinda° 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° (rarely heard as hono°n 74.8; this is very likely its original form, cf. °n for °ne, §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° just so, for fun
- vana' even 47.10; 61.3; 71.8; 76.4; 186.2
- yaxa'a°wa however (cf. yaxa, §114, 9; for -wa cf. gi'te°wa, §113, 1) 72.11; 74.15
- ha'ga explanatory particle used with inferential 28.10; 45.11 (e.g., ga haga wa'la° yu'k' so that one was really he 170.8)
- nakla' in every way, of all sorts (e.g., k'adi' nakla' a'mi° igi°nan what kind was not taken?, i.e., every kind was taken 60.11)
- yewe perhaps 136.23; 180.8; 196.18
- s'o°, s'o° perfectly, well 136.20; 166.1 (e.g., s'o° de°gwa'li°gwit°p° take good care of yourself! 128.24)
- amadi°(s-i°) would that! 142.10 (e.g., amadi°s-i° tlooma'm°n I wish I could kill him; amadi°loho° would that he died! 196.2)
- wi'sa°m (cf. wis, §114, 8) I wonder if 150.2, 3 (e.g., mi°t wi'sa°m ya° 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 wi°biha'n ye°wa's°t° wi'sa°m 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:

- bâ°-gwan° (1) yâ°nia°-uda° (2) bai-yeweya'k°w (3) as soon as (1) they went (2), she took him out again (3) 128.20
- yewe (1) xebe°yagwanaga'm (2) yewe (3) wâ°da (4) hiwili°w's° (5) perhaps (1) that we destroy him (2), perhaps (3) he runs (5)

1 Probably compounded of bâ° now and gan(i) now, then, and then. §113
to her (4) (= should we destroy him, perhaps he would run to her)
waya' (1) he'en' (2) de-k'iwii'k'aukwanna (3) ga (4) na'nak'ik'k' (5) just as (2) a knife (1) is brandished (3), that (4) he did with it (5) 172.12 (cf. he'ne' in its meaning of LIKE, §112, 3)

§ 114. Particles

By particles are nere 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'la', 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 -t'a (§102), but differs from it in that it may be embedded in the verb-form:

i_yā′asgeetsga'it 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 -t'a, the idea of a contrast:

xā′xō yā′a right among firs (cf. 94.17)
he'en'yā′a just then, then indeed 63.13; 128.22; 188.1, 18
dō'mxbin yā′a I shall just kill you 178.15

It has at times a comparative force:

gi′yā′a na'nada′ 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

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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 \[ ya'\ a, \] to which it may be appended:

\[ ga\ ya'\ a\ 'hi \] just under that 190.17
\[ han\ -ya'\ a\ 'hi \] just across the river she emerged 58.3

As emphasizing particle it may even be appended to subordinate verb forms and to local phrases:

\[ yahn'te'da\ 'hi \] just as I went (cf. 138.23; 152.5, 7)
\[ diha\ -ude\ 'hi \] right behind me, as soon as I had gone

It may be enclitically attached to other particles, \[ ya'\ a\ '-hi \] 192.1 being a particularly frequent combination:

\[ gi\ yaxa'\ '-hi \] 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 - -:

\[ mo'\ xo wa'inh\ a \] buzzard, put him to sleep!
\[ s'imhi wa'inh\ a \] (?) put him to sleep!
\[ p'e'lda wa'inh\ a \] 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
\[ ha'n-hi \] across he-canoe-paddled

but:

\[ ei-han-sa'k\ 'w \] he-canoe-across-paddled 112.9, 18; 114.11

where \( han\ -\) as an incorporated local prefix, takes its place after the object \( et\). A number of adverbs always appear with suffixed \( hi\); e. g., \[ gasa'\lli\ ] QUICKLY 16.10. Like \( -a'\), 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 \( -a', y\ a', h\, \) and \( -s\, \) respectively, are well illustrated in \[ mes' \] you, but you (as contrasted with others); \[ ma\ ya'\ a \] just you, you indeed (simple emphasis without necessary contrast); \[ ma\ 'hi \] you yourself; \[ mes\ '-a' \] and you, you in your turn (198.13)

3045\ — Bull. 40, pt 2 — 12 — 18
3. **-hi**. This particle is found appended most frequently to introductory words in the sentence, such as mi, ganē, and other adverbs, and to verb-forms:

\[ \text{mi-} \text{-hi} \text{ t'aga'iz} \] then he returned 62.2; (cf. 188.15)  
\[ \text{ganē-} \text{-hi} \text{ aba-i-gini'iz'k' } \] and then he went into the house 55.16  
\[ \text{naga'-i-} \text{-hi} = \text{naga'iz} \] he said + -hi (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:

\[ \text{ga naga'sa'-n-} \text{-hi} \] that they said to each other, it is said 27.1, 3; 31.9  
-\text{-hi} is also found attached to a verbal prefix (22.1; 140.8, 22, 23).  

4. **-si** 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:

\[ \text{āks'-i} \] he in his turn 61.11; (cf. 47.14; 104.8, 13)  
\[ \text{kal'a' sgi'sid'i'dl mēx'-i} \] Panther and Coyote, also Crane

An example of its use as sentence connector is:

\[ \text{ga naga'ahna' ha-t gā'-de hop't'izn, bō'-} \text{-si} \text{' eme'iz a'ni} \text{ ga naga'iz} \] 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)

-\text{-si} is particularly frequently suffixed to the demonstratives ga THAT and aga THIS, gas'-i and agas'-i 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, agas'-i, or by a word with enclitically attached -si. In an antithesis agas'-i seems to introduce the nearer, while gas'-i is used to refer to the remoter act. Examples showing the usage of gas'-i and agas'-i are:

\[ \text{gas'-i} \text{ de'el ha-de-dill'a ēi-būmā'ak' } \] (I smoked them out), and-then (or so-that) yellow-jackets everywhere swarmed 73.10  
\[ \text{k'owi'iz} \text{ t'omoma'nda' gas'iz' gas'aya'p' } \] something I-having-killed-it, thereupon you-ate-it 90.8  
\[ \text{gas'-i} \text{ gād'ā hūl'īn wa-} \text{-iwi'iz} \text{ t'omxi'vas'iz abā'iz on-one-hand his-} \text{wife (was a) sea woman, her-mother-in-law-but (lived) in-the} \text{house 154.15} \]

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agas’i² yöök! at’k’ yä’a xu’ma-s’i² a’nî³ de’ügü’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’i² a’nî³ mi’t’wa al-t’eye’xi naga’i² yulum’a’ aga’i² xamk’ wa-iwi’i mi³ al-tlayák’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
agas’i² and agas’i² as syntactic elements are not to be confused with the demonstratives ga and aga to which a connective -s’i² happens to be attached. This is shown by:

ga-s’i² ga²al that-so for (= so for that reason)

where ga²al is a postposition to ga. There is nothing to prevent post-nominal -s’i² from appearing in the same clause:
aga’s’i² mëls’i² but Crow-in-her-turn 162.14

When suffixed to the otherwise non-occurring demonstrative -s’i² (perhaps contained in ìda- that) it has a concessive force, Despite, although, even if 60.1:

"ës’i³-hi s’om ga²al ha-de-dîlt’a wî’t a’nî³ al-tlayak’ pîyi’n although-indeed mountain to everywhere he-went, not he-found deer 43.6

ës’i² tlayak’ a’nî³ tomöm gûxdagwa although he-shot-at-her, not he-killed-her his-own-wife 140.17

-hi² (see no. 3) or connective -s’i² may be added to ës’i³, the resulting forms, with catch dissimilation (see § 22), being ës’i³-ihi² and ës’i³-is’i² 47.11; 148.12. When combined with the idea of unfulfilled action, the concessive ës’i³ is supplemented by the conditional form in -k’i² of the verb:

ës’i³-k’ a’i gîlak naqbiyauk’i³, wede ge li³wa’i³ 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’i² is the indefinite particle:
5. -s’i²wak’èdi 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’i²wak’èdi henenagwa’t’ perhaps (or probably) you ate it all up 26.17

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The uncompound wak'idi also occurs:

.ulu'm wa'k'idi k'ai nãk'am formerly I-guess something it-was said to him 166.1
.ga wa'k'idi hogwa'zsdã° that-one, it-seems, (was) their-runner 49.3

Similar in signification is:

6. mĩtwa PROBABLY, PERHAPS 45.8; 63.15. This enclitic has a considerable tendency to apparently be incorporated in the verb:

\textit{i-mĩtwa-tlãatliwin} maybe he was caught \textit{(i-tlãatliwin} he was caught) 49.3
.xã'-i-mĩtwa-sgi'ibi'n mĩtxda'n hi I'll-probably-cut-him-in-two once just 31.13

7. his, hĩs NEARLY, ALMOST, TRYING 44.7; 56.14. This element implies that the action which was done or attempted failed of success:

\textit{mĩ hono} tlonok'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 \textit{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:

\textit{"ha-xiya' mĩtwa sgã'at'ap'dẽ"} nagã'ti'-hi's \textit{"in-the-water probably I-shall-jump,"} he thought \textit{(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'-ek'ẽxe} I used to smoke \textit{(but no longer do)}

8. wis, wĩs IT SEEMS, DOUBTLESS. This particle is used to indicate a likely inference. Examples are:

\textit{mĩ-wis dapã'la-u moyãqwana'n now-it-seems youth he's-to-be-spoiled} (seeing that he's to wrestle with a hitherto invincible one) 31.12
\textit{mĩ wĩs åk'la tlonoma'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

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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'te* 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-heve'hau* only he—is—continually—thinking (i. e., he is always thinking) (cf. 128.18; 146.15)

10. *wala'te (sina'te)* really, come to find out 45.11; 170.8. As indicated in the translation, *wala'te* indicates the more or less unexpected resolution of a doubt or state of ignorance:

*ga haga wala'te wili wa'-i-tla'nik't* 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'te*si (sina'te), evidently an amplification of *wala'te*, 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:

*mân t'i'tse misal di' tlomomana'te* 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'-i-tla'nida'te* 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:

*yu'k!alxde'te mî' di' *a'ni' te 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 *mî* now and *ganê* then, and then, which, though they have been included among the temporal adverbs and may

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indeed, at times, convey a definite temporal idea, are generally weak unaccented introducers of a clause, and have little determinable force:

\[ gānē \ yu^a \] then he went 92.26; 118.19; 152.7
\[ mōl \ lōho^a \] then he died 71.13; 98.19; 122.13

The proclitic \textit{ne} is well used chiefly as introductory to a hortatory statement:

\[ ne^a gō^m-si^a \ dakh-s-inv^da \ nabā^as ha'n \] let us in our turn over his nose let us do (i.e., let us pass over him!) 144.11
\[ ne^a tōmoma^a \] 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 \( * \), \( a \) as in English \textit{bat}, \( ã \) as in \textit{saw}, \( dj \) as in \textit{judge}, voiceless palatal \( l \) [written \( l \)], 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. \textbf{Particles of Address}:

\textit{ama} come on! 96.24
\textit{hene} away from here! get away! 148.8, 10, 11, 13, 14
\textit{dit'gwalam} O yes! (with idea of pity) 29.13; \textit{dit'gwā'aslam wīwā} my poor younger brother! 64.4
\textit{ha-i} used by men in talking to each other
\textit{ha'ik!ā} used by women in talking to each other (cf. \textit{ha-ik!ā} wife! husband!)

2. \textbf{Simple Interjections} (expressing fundamental emotions):

\( ā+ \) surprise, generally joyful; weeping 28.5; 58.2; 150.2
\( ā; ā'; *ā; *ā' \) sudden surprise at new turn; sudden resolve 28.6; 29.7; 55.7; 78.9
\( a^* \) 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
\( ă+ \) fear, wonder 17.3
\( ē^*; *ē^* \) displeasure 27.16; 32.9; 33.6; 122.12
\( ê; hê+ \) (both hoarsely whispered) used by mythological characters (crane, snake) on being roused to attention 122.10; 148.17, 18
†he +; † + call 59.2; 73.7; 75.10; 76.8
† en†; †en disapproval, "what's up?", sarcasm 28.11; 32.10
†En†; †En protest 112.6, 11; 114.3, 6, 13; †En†; †En decided displeasure 198.2
†he† scorn, threat 140.9; 152.14
en† sniffing suspiciously 160.20
En†; En†; En†; En† 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
wā†+ wā†+ (loudly whispered) cry for help 29.12
ha-i alas! 62.4, 7
A†+ groan 182.11
ho† (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†e′hehehe derisive laughter 71.7; 72.11; 73.15; 74.15
s′be′p′ sharp anger 86.6, 22, 24
s′be′+† call for some one to come 92.1
c′a′i say there, you! 92.18, 21
s′gā′ sorrow 100.3

3. SET CALLS (including cries in formulas and myths):

p′ā†+ (loudly whispered) war-whoop 190.15
bā†+ bā†+ (loudly whispered and held out long) war-whoop
136.26 bā wā′ āu wā′ āu . . . . (loudly whispered) war-whoop
110.19 gwā′ lā lā lā lā (loudly whispered) war-whoop on slaying
one of enemy
wā′ wā′ wā′ cry to urge on deer to corral
bō†+ yelling at appearance of new moon 196.5
hā†+; bā†+ (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
hē 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 du)
ximi′+ximi cry of rolling skull 174.5, 6

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ō' + da da da da da cry of people running away from rolling skull 174.9, 10
dō'thi ḏō'thi' taunt (of Pitch to Coyote) 86.2, 8, 10, 17, 21, 23; 88. 1, 2
da'ldalwaya da'ldalwaya da'ldalwaya formula for catching craw-
fish (explained in myth as derived from dalda'l dragon-fly) 29.14, 16
wō'lik'isi “cut off!” (cf. wō'li' his stone knife 142.21) Chicken-
Hawk's cry for revenge 144.1
sgīlbigi' +i 'come warm yourself!’ 25.7 (cf. sgīl'pixde' I warm
myself 25.8)
geve'ek!ewew (cf. geve'k!iwi'n I hold [salmon] bow-fashion) said
by Pitch when Coyote is stuck to him 88.5, 9, 11, 12
pēdi-l-pē't'pēdit7c "my liver!” (cf. paet'pid_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 other-
wise found.

4. Animal Cries and Imitative Sounds:

wa'yami 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
hāu Bear's cry 72.15
pēlēk' pēlēk' "bathe! bathe!” supposed cry of crow
bāk' bāk' bāk' bāk' bāk' sound made by Woodpecker 90.11; 92.2
(cf. bā'k'ba'a red-headed woodpecker 92.2)
plau plau plau plau plau sound made by Yellowhammer 90.19
bām+ bām+ noise made by rolling skull 174.4
tēle'lelelele (whispered) sound of rattling dentalia 156.24 (cf. aorist
stem tēlelem- rattle)
t'ul t'ul t'ul noise made by Rock Boy in walking over graveyard
house 14.8
dēm+ dēm+ dēm+ 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-dā'u-t'gil-
t'ga'lhī he broke it in two with rock 24.4)
t'ut' t'ut' t'ut' noise of pounding acorns 26.12
bāk! "pop!” stick stuck into eye 27.8
hān+ confused noise of people talking far off 190.7
kō'dididi sound of men wrestling 32.14

5. Song Burdens:

wa'yawene ë'o'wana medicine-man's dance 46.14
wa'inhā round dance; lullaby (cf. wa'inha put him to sleep!) 104.15; 106.4, 8; 105 note
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§ 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-o* [plural] *getting big*; adverb *olo'mformerly*); 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 pre-positives 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.
### APPENDIX A

#### 1. Comparative Table of Pronominal Forms

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<td>-e'et</td>
<td>-(a')i'</td>
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<tr>
<td>Aor. subj. intr. II</td>
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<td>-t'am</td>
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<td>Fut. subj. intr. I</td>
<td>-e'e</td>
<td>-(a)da'e</td>
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<td>Fut. subj. intr. II</td>
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<td>-t'a</td>
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<td>Pr. imper.</td>
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<td>-(a')yk'</td>
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<td>Fut. imper. intr. I and trans.</td>
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<td>-(p')g'm</td>
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<td>-(k) e't'</td>
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<td>Obj. trans.</td>
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<td>-bi</td>
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<tr>
<td>Poss. with pre-positives</td>
<td>-dë</td>
<td>-da</td>
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<tr>
<td>Poss. relationship</td>
<td>-t'i</td>
<td>-za, -a</td>
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<tr>
<td>Poss. II</td>
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<td>-de</td>
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<tr>
<td>Poss. III</td>
<td>-(t)'ëk</td>
<td>-(t)'ë</td>
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<td>Independent pronouns</td>
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<td>ma</td>
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2. Scheme of 7 Voices in 6 Tense-modes (2d per. sing. of *dink!*-SPREAD)

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<th>Present imperative</th>
<th>Future imperative</th>
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<td>Trans. (2d per subj.)</td>
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<td><em>dink/uda</em></td>
<td><em>di'nek'tal</em></td>
<td><em>di'neklat</em></td>
<td><em>di'neklat</em></td>
<td><em>di'neklat</em></td>
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<tr>
<td>Passive</td>
<td><em>di'nicosbin</em></td>
<td><em>dink/zizina</em></td>
<td><em>di'ntsbigam</em></td>
<td><em>di'ntsbigam</em></td>
<td><em>di'ntsbigam</em></td>
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<td>Act. intr.</td>
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<td><em>dink/zida</em></td>
<td><em>di'ntsbat</em></td>
<td><em>di'ntsbat</em></td>
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<td><em>dink/zoidor</em></td>
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<td><em>di'nik'widam</em></td>
<td><em>di'nik'widam</em></td>
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<tr>
<td>Recipr. (pl.)</td>
<td><em>di'nicosant'p</em></td>
<td><em>dink/zidar</em></td>
<td><em>di'nik'widam</em></td>
<td><em>di'nik'widam</em></td>
<td><em>di'nik'widam</em></td>
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<td>Non-agentive</td>
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<td><em>dink/k'tam</em></td>
<td><em>dink/k'tam</em></td>
<td><em>dink/k'tam</em></td>
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### 3. Forms of *na*(*g*)- SAY, DO

#### A. Intransitive

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<td></td>
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<tr>
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<td><em>na'tee</em></td>
<td><em>na'tee</em></td>
<td><em>na'k'at</em></td>
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<td><em>na'tk'at</em></td>
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<td>3d per.</td>
<td><em>naga'at</em></td>
<td><em>naga'te</em></td>
<td><em>na'tee</em></td>
<td><em>na'k'at</em></td>
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<td><em>na'tk'at</em></td>
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<tr>
<td>1st per.</td>
<td><em>nagayik't</em></td>
<td><em>naga'tm</em></td>
<td><em>'m</em>naga'yik't*</td>
<td>*na'k'ana'k' *</td>
<td><em>naba'at(ha'n)</em></td>
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<td>2d per.</td>
<td><em>naga'a'tp</em></td>
<td><em>naga'a'tb</em></td>
<td><em>naga'a'tb</em></td>
<td>*na'k'ana'k' *</td>
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<td><em>naba'at(ha'n)</em></td>
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<tr>
<td><strong>Imper.:</strong></td>
<td><em>neGay'e's</em> (subordinate)</td>
<td><em>neGay'e's</em> (subordinate)</td>
<td><em>neGay'e's</em> (subordinate)</td>
<td><em>na'f'</em></td>
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#### FREQUENTATIVE

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<tr>
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<td><em>na'at</em></td>
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<td><em>naga's</em></td>
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<tr>
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<td><em>naga'a'tk'et</em></td>
<td><em>naga'a'tk'et</em></td>
<td><em>naga'a'tk'et</em></td>
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<td><em>naga'tl'et</em></td>
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<td><strong>Imper.:</strong></td>
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<td><em>nagayi'k'</em></td>
<td><em>nagayi'k'</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
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</tbody>
</table>

1 These forms are to be carefully distinguished from *na*-*nada'at*, *na*-*na'at*, and so forth (see §69). It is of course possible to have also *na*-*naga'te*, *na*-*naganada'at*, and so forth.

2 Also *na'k'at* is found, so that it is probable that doublets exist for other non-aorist forms, e. g., *na'k'ada*-*na'k'ada*.

#### B. Transitive

##### Aorist

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<tr>
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<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
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<tr>
<td>2d per.</td>
<td><em>nega's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
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<td>3d per.</td>
<td><em>nega's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
<td><em>naga's</em></td>
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<td><strong>Plural:</strong></td>
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<tr>
<td>1st per.</td>
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* BUREAU OF AMERICAN ETHNOLOGY

[BULL. 40]
## 3. Forms of na(g) - SAY, DO

### B. Transitive—Continued

#### Future

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<tr>
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<td>názimida</td>
<td>názanban</td>
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<td>nák'ida</td>
<td>názamank'</td>
<td>názanbank'</td>
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<td>nášbinagam</td>
<td>náginaq'</td>
<td>názimit'bas</td>
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<td>Singular: 1st per.</td>
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<td>názbiga</td>
<td>nák'ij'at</td>
<td>názamk'/el'</td>
<td>názanp'ga'</td>
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<td>názbiga'</td>
<td>nák'ik'/el't'</td>
<td>názamk'</td>
<td>názanp'k'</td>
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<tr>
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<td>názbiganaka'k'</td>
<td>nák'ipanaka'k'</td>
<td>názamk'/el't'p'</td>
<td>názanp'gana'k'</td>
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#### Potential

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<td>nezin</td>
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#### Passive

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</tr>
<tr>
<td>1st per.</td>
<td>nega'se'sim</td>
<td>nêns'êse</td>
</tr>
<tr>
<td>2d per.</td>
<td>nega'se'si nô</td>
<td>nêns'êse</td>
</tr>
<tr>
<td>3d per.</td>
<td>nega'se'si nô</td>
<td>nêns'êse</td>
</tr>
</tbody>
</table>

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**B. Transitive—Continued**
3. Forms of na(g)- say, do

C. Causative in -n-

<table>
<thead>
<tr>
<th>Subject</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person singular</td>
<td>Second person singular</td>
<td>Third person</td>
</tr>
<tr>
<td>1st per.</td>
<td>nاغنذبًن (nاغذبًن)</td>
<td>nاغذبًن</td>
</tr>
<tr>
<td>2d per.</td>
<td>nاغنذدَذ</td>
<td>nاغذبًذ</td>
</tr>
<tr>
<td>2d per.</td>
<td>nاغذبًذ</td>
<td>nاغذبًذ</td>
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</table>

Future

<table>
<thead>
<tr>
<th>Subject</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>First person singular</td>
<td>Second person singular</td>
<td>Third person</td>
</tr>
<tr>
<td>1st per.</td>
<td>nاغنذبًن</td>
<td>nاغذبًن (nاغذبًن)</td>
</tr>
<tr>
<td>2d per.</td>
<td>nاغنذدَذ</td>
<td>nاغذبًذ</td>
</tr>
<tr>
<td>3d per.</td>
<td>nاغذبًذ</td>
<td>nاغذبًذ</td>
</tr>
</tbody>
</table>

Passive

<table>
<thead>
<tr>
<th>Subject</th>
<th>Aorist</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st per.</td>
<td>nاغذبًذ</td>
<td>nاغذبًذ</td>
</tr>
<tr>
<td>2d per.</td>
<td>nاغذبًذ</td>
<td>nاغذبًذ</td>
</tr>
<tr>
<td>3d per.</td>
<td>nاغذبًذ</td>
<td>nاغذبًذ (nاغذبًذ)</td>
</tr>
</tbody>
</table>

1 Though these forms are simply derivatives of Intransitive aorist nاغذ- (nاغذ-), 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): nاغذه.

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3. Forms of na(g)- say, do

D. Reciprocal Forms

<table>
<thead>
<tr>
<th>Plural:</th>
<th>Aorist</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st per.</td>
<td>naga'ëniük'</td>
<td>naxinîyam</td>
</tr>
<tr>
<td>2d per.</td>
<td>naga'ënum'p'</td>
<td>naxantŐet'</td>
</tr>
<tr>
<td>3d per.</td>
<td>naga'ënum</td>
<td>naxantűj'</td>
</tr>
<tr>
<td>(frequentative nagaš-saũn)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. Nominal Derivatives

**INFINITIVES**

Intransitive: ne'x

<table>
<thead>
<tr>
<th>Object</th>
<th>First person singular</th>
<th>Second person singular</th>
<th>Third person</th>
<th>First person plural</th>
<th>Second person plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitive</td>
<td>nēxiya</td>
<td>nāxbiya</td>
<td>nāxlaš</td>
<td>nāximia</td>
<td>nāxambia</td>
</tr>
</tbody>
</table>

**PARTICIPLE**

Active: nať

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 nagaĩ- in transitive derivatives nagaĩk'wa he said to him (personal) and nagaĩk'wit' he said to himself. Comitatives in -(a)gu- are not listed because their formation offers no difficulty; e.g., second person singular present imperative nāk'w do so and so having it! It is possible that bō- nēxada² immediately is nothing but adverb bōu now + subordinating form *nēxada² of -xa- derivative from nāqg- 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'lam1 sebe't2 hap'da3 loho'k'.4 sgi'sidi'5 no'ts4lat'gwan6
Roasting-Dead-People
his child
it died.
He and Coyote neighboring each
other
yuk7 ga-si8 nak'ik'.9 "laps10 yimi'xi11 hap'dek'12 loho'ida'.13
they were. And that he said to "Blanket lend it to me my child
since it died,
laps10 yimi'xi,'11 naga'-ihi'14 xilam1 sebe't15 "ani15 laps10
blanket
fend it to me," he said, it is said, Roasting-Dead-People.
"Not blankedet
yi'misbi'n 16  gwidi'-si' 17  yo'et' 18  xila'm 1  yëd'k'í' 19  naga'-ihi' 20  
I lend it to you for where they will be dead people if they return? he said, it is said,

gö'si'. 5  no'ê's 21  yewe'le 22  xila'm 1  sebe't. 3  klo'döt' 22  háp'dagwa 23  
Coyote. And next door he returned Roasting-Dead-People. He buried it his own child
loho'ida' 24  ginëhle 25  dabali'xa 26  laële' 27  mihi' 28  sgi'si' 5  háp'da 3  
who had died. And then, it long time it became. Now, it is Coyote his child
is said,

yi'misbi'n 16  gwidi'-si' 17  yëd'k'í' 19  naga'-ihi' 24  
I lend it to you for where they will be dead people if they return? he said, it is said,

xi'lam'sebet' 2 ga' naga'-ihi' 14  "hô'xâ'a 25  ma'a 35  
you said? Roasting-Dead-People that he said. "Last time you

yi'misbi'n. First person singular subject (-'a) second personal singular object (-bl-) of verb yi'mi'zi'n (see yi'mi'zi' above). -bl- indirect object used only in aorist of this verb, elsewhere -z; e.g., future yi'mi'zin 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.

gwidi'-st-. gwidi- general interrogative and indefinite adverb WHERE? SOMEWHERE. di interrogative entific serving to give gwi- distinct interrogative signification. -st- has here slight causal usage: FOR WHERE WOULD THEY ALL BE, IF THEY RETURNED?

yi'misbi'n. Third personal future of verb gwidi' i 1 AM (see yu'k' above). -z- third personal subject future intransitive Class I.

yëd'k'í'. Third conditional personal (-'i') of verb yëd'k'í' Type 41 RETURN; aorist stem yëd'k'í' -gice reflexive suffix.

no'ê's 21. =no'ê's (stem no'ê'- NEXT DOOR) + connective -I. no'ê's may best be considered as local adverbial prefix to yewe'.

eyewe'le'. Third person aorist of verb yewe'le' see yëd'k'í' above (-z- and - as in loho' and naga'-ihi' above)

ki'lo'döt'. Third personal subject, third person aorist aorist of verb klo'dot' i 4 Type 5 I BURY HIM aorist stem klo'do-, verb-stem goad.

hô'xâ'a. See hô'xâ (1). -xâ reflexive suffix. klo'dot' hô'xâ would have meant HE (Roasting-
Dead-People) BURIED HIS (Coyote's) CHILD.

loho'ida'. In this case subordinate form serves merely to explain hô'xâ, and may thus be rendered as relative, WHO HAD DIED.

mi'h 15. =mi' and then (compound of demonstrative ga), used to introduce new turn in narrative, + quotative-st. 

dabali'xa. Temporal adverb LONG TIME. Like many other adverbs, it is difficult of satisfactory analysis. dis- is local body-part prefix, as in several other temporal adverbs; but its application here is quite obscure. bal- radical element, cf. adjective dib's LONG. -s- adverbial (chiefly temporal) suffix-

i'-? (cf. lep'mi's WINTER).

idâle'. Third person aorist intransitive Class II of verb lele' Type 10a and 15a I BECOME; aorist stem lele', verb-stem lele'-p'. -i'=-t= is positional verbs. Corresponding inferential dîp'.

mi'hî. =mi' weak temporal adverb no nO, thEm, serving generally to introduce new statement, + quotative-st. 

loho'ida'. See loho'ida' (2).

ginëhle. Third person aorist of verb ginëhle' Type 2 I GO (somewhere); aorist stem ginëhle', verb-stem

ginëhle-, ginaag- (present imperative ginëhle'; future ginaag'). -hle- third person aorist intransitive Class I. Inasmuch as forms occur derived from base gin- (e.g., reduplicated ginëhle' -e), - must be considered as either petrified suffix, or as trace of older reduplication with vanished vowel in second member: gin- from (?) gin- -p-. ginëhle- can be used only with expressed goal of motion (in this case no'ê's and wo'da'). He went without expressed goal would have been yu'c'. Similarly: baxim COME, met-ginëhle' COME HERE; hô'xâ-run, hîlîhîlî-run (somewhere); jôv'ô'k'ap'- JUMP, billîh- JUMP AT.

dabali'xa. Formed, like no'ê's/tse'min (1), by addition of third personal pronominal suffix -da to local stem wah-; first person wahâ. These forms are regularly used when motion to some person or persons is meant: if goal of motion is non-personal, postposition yow'si' TO, AT is employed.

kâ'. (before di, otherwise k'â') is substantival indefinite and interrogative stem (THING), WHAT, corresponding to adverbial post- (4). di serves also here to give kâ's distinct interrogative force.

naga'. Second person singular aorist of verb naga'. (see naga'-ihi' above). This is one of those few intransitives that take personal endings directly after stem ending in semi-vowel (nagagw-), without connective- (see §65 end).

hô'xâ'a. =hô'xâ' YESTERDAY, (here more indefinitely as) LAST TIME, FORMERLY + delicto -qâ'. -qâ is adverbial (temporal) suffix (cf. dabali'xa above). -qâ serves to contrast LAST TIME WITH NOW.

wo'da. =wo second person singular indefinite personal pronoun + delicto -qâ', which here contrasts you (as former object of supplication) with r (as present object of supplication).
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. "Sgä!" he cried. For that reason people do not nowadays return when they die.
HOW A TAKELMA HOUSE WAS BUILT

They make it. First they set it down, and on top thereof they place (beams) across. Then they set it down, on both sides they finish it. And then they put them houseboards, sugar-pine those boards.

Then they make it; from on top they finish it, and then they put them houseboards, sugar-pine those boards.

They make it, and from on top they finish it. And then they put them houseboards, sugar-pine those boards.

3 86, 1. Predicate appositive to ha-la'm: THEY MAKE THOSE BOARDS OUT OF SUGAR-PINE.

4 § 86, 2; suffix -n, § 87, 6.

5 38-61, 1. The local phrase with pre-positive da- IN FRONT OF and third personal possessive suffix da- is § 93 end. -da postposition § 96 of unclear meaning here.

1 See note 39 of first text; § 86, 2. yap-a is to be understood as subject of all following finite verb forms.

2 § 86, 3; quantity of final vowel varies between -i and -ii. Directly precedes verb as object.

3 Third personal subject, third personal object aorist of verb klemët'a Type 3 I MAKE IT; §§ 63; 65.

4 § 86, 1; object of following verb.

5 post- DOWN § 37, 13; dit- § 36, 10. l0w' third personal subject, third personal object aorist, third personal possessive of verb of personal characteristic -i. Type 6 I SET IT; §§ 63; 40, 6.

6 emë- HERE § 104; -i' conluctive particle § 114, 4.

7 Modal adverb § 113, 4.

8 § 104.

9 Numerical adverb from gamga'm FOUR § 111.

10 Temporal adverb § 113, 3.

11 han- ACROSS § 86, 3; -i't third personal possessive form of noun. characteristic -i- § 89, 3; 92. IlL HOUSE ITs-WALL is regular periphrasis for ROUSE'S WALL.

12 post- position of independent local adverb § 96.

13 See note 12; -i' § 114, 4.

14 mëši-dak'da's numeral adverb ONCE § 111; -ni conluctive particle § 114, 2.

15 ya' post-positive particle JUT § 114, 1; -i' § 114, 4.

16 s'idib- (HOUSE) WALL § 86, 3; -i' third personal possessive form of verb of personal characteristic -i. Type 6 I SET IT; §§ 63; 40, 6.

92 III. HOUSE ITs-WALL is regular periphrasis for HOUSES' WALL.

17 Third personal subject, third personal object aorist of verb mats/aga'ma Type 3 I PUT IT; §§ 63; 40, 3.

18 Noun stem ked-e- with nominal suffix -am dissimilated from -aø §§ 87, 6; 21. wi'lli he-la'm is compo-

19 compound noun § 88.

20 § 86, 1. Predicate appositive to he-la'm: THEY MAKE THESE BOARDS OUT OF SUGAR-PINE.

21 Demonstrative pronoun of indeterminate number modifying he-la'm § 104.

22 Temporal or connective adverb compounded of demonstrative ya and element -ni (?=NEC) of unknown meaning §§ 113, 2; 114 end.

23 Adverb in -at from local element dak'- ABOVE § 112, 1.

24 da- § 36, 2 end; -alaba'k third personal subject, third personal object aorist of verb -italaba'a'm Type 3 FINISH IT; §§ 63; 40, 3.

25 Local adverb § 113, 1.

26 dedewili'dadi's third personal subject, third personal object aorist of verb -wilihka'm Type 3; §§ 63; 40, 3.

27 § 86, 2; suffix -a, §§ 21; 87, 5.
sgap', 33 gwelt'gâ'n 24 gina'x 35 kłemèi; willi s'idi'bi's'i 36 kлемèi. gane places, down to the earth going they make house its wall and they make And ft; then
datlaba'k ha'it bûx't'bxik'w. 37 gane leplès 38 habi'wû'ek'î, 39 gana't' 40 they finish it all cleaned inside. And
then
gidî 41 alxali 42 yapla'; phî 43 yogagna' 44 has'sô' 45 gas'î 46 alxaliyana' 47 they are thereon they sit people; fire its place in the center, so that they being seated
hà'ya-pliya 48 gana'ne'x 49 hopâ'l'n 50 yapla's 51 wi'li', 52 lep'nî'xas 53 on both sides of the fire, then
wili' 54 gana't 55. sama'xas' 56 ana'ne'x 57 alxali, a'nî' 58 wi'li gana'u. 59 5 their
of that house. But in summer in this way they sit, not house therein

gwa's 55 willi yaxa 59 wit'ge'ye 60 k'î, 60 gas'î 5 phî yogagna' 46 kłemèi Brush house just they set it around, so that fire its place make it
habini'. 61 gana'ne'x sama'xas' alxali, anî lep'nî'xas nat' 62 wi'li gana'u. in the middle. In that way in summer they dwell, not in winter like house therein.

23 ad § 36, 7b; s- instrumental § 36, 6; za't- with t to mark hiatus § 6; -agippiaga'g' third person subject, third personal object aorist of verb -agippiaga'g' Type 13a cut it up to pieces iterative of verb -opi'bi'n Type 6; §§ 83; 40, 13; 43, 1.
Local phrase with pre-positive gwelt' down to § 95 and noun-characteristic -a § 89, 4; t'pî § 86, 1.
See note 30; Infinitive used as noun § 74 end.
See note 16: s'i² § 114, 4. s'i² is appended to s'idî'î rather than willi, as willi s'idî'î is taken as unit.
ha- in § 36, 11 b; s- instrumental § 36, 6; ha'sô § 6. -bûx't'bxik'w passive participle with instrumental -I- in -ix'w § 77 from verb -bûx't'bxik'w. Type 13a, verb stem -bûx't'bxik'w; -bûx't'bxik'w ablauted to -bûx't'bxik'w § 31, 2; -bûx't'bxik'w in -bûx't'bxik'w § 31, 3.
ha'it bis'bi'n Type 6; §§ 83; 40, 13; 43, 1.
ha'sô in § 36, 11b. -hà'mâ'k'sô'ik'â = -hà'mâ'k'sô'ik'â 29 end; third personal subject, third personal object aorist of instrumental verb -hà'mâ'k'sô'ik'â Type 13b I SPREAD (MAT) OUT § 64.
Compound of demonstrative ga that and na'ne' participle in -I- § 78 of verb nagai- Type 4 a do, be, verb stem na-; see Appendix A.
Postposition § 96; gi- unmodified from ga- § 8, 4.
al- § 36, 15b, here with unmodified ga- § 93 (see transitive paradigm).
na'ne' in § 36, 15b, here with unmodified ga- § 93 (see transitive paradigm).
na'sôna- § 69, 74, 1; Appendix A.
Temporal adverb in -a § 112, 3.
gapa'sa see note 1; -a deictic post-nominal element § 112 (people of long ago contrasted with those of to-day).
wi'li' or wi'li' third personal pronoun form § 93 II 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.
Third personal possessive of noun yag- (?) § 86, 1 with noun-characteristic -a § 92 II. FIRE ITS-PLACE is regular paraphrasis for FIRE'S PLACE.
Local phrase with pre-positive ha- in; s'i² § 86, 1 does not seem otherwise to occur.
Connective compound of demonstrative ga that and enclitic particle -sô' § 114, 4.
Subordinate form of alxali, note 42; § 70 (see transitive paradigm).
Local phrase with pre-positive ha'ya- on both sides of and noun-characteristic -a § 95; -hî- from phî FIRE.
Modal adverb compound of demonstrative ga that and na'sô'ne' infinitive of verb na'sô'nagai-, verb stem na'sô'na- § 69, 74, 1; Appendix A.
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wi'li' or wi'li' third personal pronoun form § 93 II 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.
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, 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.