

## SOME NOTES ON PINOLTECA GRAMMAR \*

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### INTRODUCTION

This paper deals with some aspects of Pinolteca grammar. Pinolteca is a dialect of Tzeltal —a Mayan language— as spoken in the town known as Pinola or Villa las Rosas in the State of Chiapas of Southern Mexico.

### PRONOMINALS

The following forms were found to occur. They are analyzed as shown below.

|           |                    |                  |
|-----------|--------------------|------------------|
| hoʔon     | hoʔ + on           | <i>I</i>         |
| hoʔotik   | hoʔ + ot + ik      | <i>we</i>        |
| hoʔotikik | hoʔ + ot + ik + ik | <i>we</i>        |
| haʔat     | haʔ + at           | <i>you (sg.)</i> |
| haʔateš   | haʔ + at + eš      | <i>you (pl.)</i> |

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|          |             |                    |
|----------|-------------|--------------------|
| stukel   |             | <i>he, she, it</i> |
| stukelik | stukel + ik | <i>they</i>        |

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The morph segments are classed into morphemes as follows:

|             |   |
|-------------|---|
| {haʔ ~ hoʔ} | <i>demonstrative</i> (see also Demonstratives)                      |
| {-on ∞ -ot} | <i>1st person suffix</i>  |
| {-at}       | <i>2nd person suffix</i>  |
|             | Note that 3rd person is not marked by a parallel suffix. See below. |
| {-ik ∞ -eš} | <i>plural suffix</i>  |

The forms included in the above pronominal set as third person pronominals do not belong to the same paradigm as the others. This is evidenced by the absence of the demonstrative stem in them.

Above, for the first person two plurals are listed: when {-ik} occurs once it is simple plural; when it occurs twice then it indicates a larger number of persons (around twenty or so).

The segmentation above is chosen since the same person and plural suffixes occur in verb paradigms. Two such paradigms are given below.

|                    |                            |
|--------------------|----------------------------|
| ʔašʔoč <u>on</u>   | <i>I enter</i>             |
| ʔašʔoč <u>otik</u> | <i>we enter</i>            |
| ʔašʔoč <u>at</u>   | <i>you enter</i>           |
| ʔašʔoč <u>ateš</u> | <i>you (pl.) enter</i>     |
| ʔašʔoč             | <i>he (she, it) enters</i> |
| ʔašʔoč <u>ik</u>   | <i>they enter</i>          |
|                    |                            |
| ʔatin <u>on</u>    | <i>I bathe</i>             |
| ʔatin <u>otik</u>  | <i>we bathe</i>            |
| ʔatin <u>at</u>    | <i>you bathe</i>           |
| ʔatin <u>ateš</u>  | <i>you (pl.) bathe</i>     |
| ʔatin              | <i>he (she, it) bathes</i> |
| ʔatin <u>ik</u>    | <i>they bathe</i>          |

#### NOMINAL DERIVATION BY PREFIXATION

a) Agentive prefix {h-∞ah-}. Some examples are given below. The prefix is underscored

|                       |                      |
|-----------------------|----------------------|
| <u>h</u> mantal       | <i>messenger</i>     |
| <u>h</u> ʔatel        | <i>worker</i>        |
| <u>h</u> lekop        | <i>prosecutor</i>    |
| <u>h</u> ʔamaw        | <i>receiver</i>      |
| <u>h</u> nopohel      | <i>student</i>       |
| <u>ka</u> hpaspin     | <i>my potter</i>     |
| <u>ka</u> ntentaʔin   | <i>my blacksmith</i> |
| ʔawah <u>mi</u> lawal | <i>your murderer</i> |
| yah <u>ki</u> ntawan  | <i>his musician</i>  |

The agentive prefix is not the same as one of the possessive prefixes (first person), because 1) it occurs with non-possessed forms, and 2) it occurs with possessed forms of the first, second and third persons. See examples above.

Note that the alternant -ah occurs in the possessed forms only.

Below more examples are given to show the position of the agentive prefix in different constructions.

|                 |               |
|-----------------|---------------|
| <u>h</u> alpak' | <i>tailor</i> |
|-----------------|---------------|

This is analyzable into h the agentive prefix, plus ʔal the verbal root, plus pak *cloth* the nominal root.

|                  |                   |
|------------------|-------------------|
| <u>h</u> paskak' | <i>fire maker</i> |
|------------------|-------------------|

This is analyzable into h the agentive prefix, plus pas the verbal root, plus kak' *fire* the nominal root.

|                  |                      |
|------------------|----------------------|
| <u>h</u> lomkak' | <i>robust person</i> |
|------------------|----------------------|

This is analyzable into h the agentive prefix, plus lom the adjectival root, plus kak *fire* the nominal root.

|                   |                  |
|-------------------|------------------|
| <u>ka</u> hpaspin | <i>my potter</i> |
|-------------------|------------------|

This is analyzable into k the first person possessive, plus ah the agentive prefix, plus pas the verbal root, plus the pin the nominal root.

hʔatel*worker*

This is analyzable into h the agentive prefix, plus ʔatel. ʔatel is further analyzable into ʔat the verbal root, plus el the verbalizing suffix.

hʔatelon*I am a worker*

This is analyzable into h plus ʔatel (see the example above) plus -on *I am*.

In the examples cited above the agentive prefix is the first immediate constituent. The constituent that follows the agentive prefix can be simple or complex.

b) Feminine gender prefix {š-}.

Names of women when referred to are prefixed with this morpheme {š-} (and suffix {-on} *I am* which is also affixed). But when not referred to, that is, when the names are used to call the persons, this prefix {š-} (as well as any pronominal suffix e. g. {-on}) is dropped. And when a person is addressed as Mrs. (name) or Miss (name), the prefix is optionally retained.

Some examples are given below for illustration.

šmalon

*Maria*

špeton

*Petrona*

šwanahon

*Juana*

šlupahon

*Lupe*

štinon

*Tina*

šminkahon

*Dominga*

silon

*Sitreria*

srosahon

*Rosa*

sʔasemon

*Asuncion*

Note in the last three examples the feminine gender prefix has the form s-. This is due to regressive assimilation before an /s/. Thus the feminine gender prefix has at least two forms, namely š and s.

mal, pet, wanah, lupah, tin, etc. are the forms used to call the persons by name.

meʔel šmal

*Mrs. Maria*

meʔel mal

*Mrs. Maria*



Note above that š occurring optionally when meʔel *Mrs.* precedes the name.

The morphemes {š-} and {-on} above cannot be treated as a discontinuous {š---on} morpheme, because š occurs when on does not occur. See the example above. This same argument holds for not treating {h---on} below as a discontinuous morpheme.

The feminine gender prefix described above seems to occur with some animal names, as in ščuč *frog*.

There are many animal names where š is the initial, and this phoneme is an integral part of the roots in such cases. This should not be misidentified with the animal prefix š referred to above. Some examples are:

šanič *ant*, šenén *zancudo*, šohk *arador*, šoman *heron*.

### c) Masculine gender prefix {h-}

Names of men when referred to or listed are prefixed with this morpheme (and the suffix -on *I am* is affixed). Otherwise the prefix (as well as suffix) is dropped, except when it is optionally retained as a term of address Mr. (name). The distribution of this morpheme thus parallels the distribution of the feminine gender prefix discussed above in b).

This morpheme {h-} should not be identified with the possessive prefix h- for the following reasons: 1) This masculine gender prefix can co-occur with the suffix -on *I am*, whereas the possessive prefix h- cannot. 2) This stands in contrast with the feminine gender prefix š. In such examples as hnikolon and šnikolon the prefix alone formally identifies the person referred to as male or female.

Some examples are given below.

|                   |                |
|-------------------|----------------|
| <u>hbetohon</u>   | <i>Alberto</i> |
| <u>hšunon</u>     | <i>Juan</i>    |
| <u>hpetulon</u>   | <i>Pedro</i>   |
| <u>hmariyanon</u> | <i>Mariano</i> |

betoh, šun, petul, etc. are the forms used to call the persons by name. When mamal *Mr.* precedes the name h- is optionally retained. mamalhbeto as well as mambeto occur.

## NOMINAL BASE DERIVATION FROM NOUN ROOTS

A note of explanation is required regarding the numbering of suffixes in the following sections: For a suffix listed twice in two different sections such as III and IV, the same numbering is used. For example the suffix -bal is listed under g) in both the sections. When a suffix is listed and it is stated that it does not occur in both the entries, then it is to be understood that this suffix was found to occur in a related dialect. When it is listed, and it is stated that it does not occur after, for example, noun or verb roots, then it is to be understood that further data might probably fill in the gap, or that a negative statement would be a statement on distribution of that suffix, if further data fails to fill in the gap.

The table below summarizes the distribution of suffixes in sections III and IV.

|  |  |
|--|--|
| Occurring in III and IV:                 | <u>-ol</u> , <u>-bil</u> , <u>-waneh</u>   |
| Occurring in III alone:                  | <u>-il</u> , <u>-al</u> , <u>-lal</u> , <u>-iltik</u> , <u>-altik</u> , <u>-tikil</u>  |
| Occurring in IV alone:                   | <u>-el</u> , <u>-ohel</u> , <u>-ib</u> , <u>-leh</u> , <u>-lehal</u> , <u>-aw</u> ,<br><u>-awil</u> , <u>-awal</u> , <u>-weh</u> , <u>-iʔbal</u> , <u>-tamba</u> |
| Not occurring either<br>in III or in IV: | <u>-ul</u> , <u>-bal</u>   |

## a) Suffix {-il}.

## Examples:

|               |                  |
|---------------|------------------|
| wiš <u>il</u> | <i>sister</i>    |
| sik <u>il</u> | <i>cold</i>      |
| bik <u>il</u> | <i>intestine</i> |
| čaʔ <u>il</u> | <i>excrement</i> |

These words can be possessed and pluralized. All the nominal roots above are of CVC shape. The resulting forms after adding the suffix are regularly of CVCVC shape.

b) Suffix {-el}. This suffix was not found to occur after the nominal roots.

## c) Suffix {-al}.

Examples:

|         |  |
|---------|--|
| kinal   | <i>time</i> (kin fiesta)               |
| lumal   | <i>pueblo</i> (lum land)               |
| haʔal   | <i>rain</i> (haʔ water)                |
| lumilal | <i>plains</i> (*lumil land)            |
| pihilal | <i>intelligence</i> (*pihil clearness) |

These words can be pluralized and possessed.

All the nominal roots above are of CVC shape. The resulting forms are regularly formed having CVCVC or CVCVCVC shape depending on whether this suffix immediately follows the root or it follows another suffix. In two of the examples above, the suffix -il (described above in a) precedes the suffix a1. It is obvious that there is further semantic specialization in such cases. Witness the examples lumal *pueblo* and lumilal *plains*, both of which have the same root lum *land*.

## d) The suffix {-ol}.

Examples:

|       |                  |
|-------|------------------|
| holol | <i>head</i>      |
| molol | <i>landlord</i>  |
| wolol | <i>ball</i>      |
| kolol | <i>ball</i>      |
| somol | <i>pit, hole</i> |
| pohol | <i>muleteer</i>  |

These words can be possessed and pluralized.

All the nominal roots above are of CVC shape and the resulting forms after adding the suffix are regularly of CVCVC shape.

## e) Suffix \*{-ul}.

Unlike the suffix -el, this hypothetical suffix was not found to occur even with verbal roots. It is probable further data might reveal such



a suffix. If it is found that this suffix does not occur at all, it would be still interesting to examine the reasons for its absence, especially when all other vowels with l form suffixes.

It should be carefully noted that the suffixes having the general shape of VI have rather peculiar distribution. Some of them are retained when the words including them are pluralized or possessed. But there are others which are not retained when the words with these suffixes are possessed or pluralized. On the basis of distribution and semantic specialization two sets of suffixes of the general shape VI have to be set up. Further, these suffixes should be distinguished from the VI which is part of the root. This is further complicated by the occasional occurrence of the suffix only in possessed forms. Some examples:

|        |                  |
|--------|------------------|
| holol  | <i>head</i>      |
| hol    | <i>my head</i>   |
| holtik | <i>our heads</i> |

Note in this example, that the suffix is lost when the form is possessed and pluralized. (The possessive h- has got assimilated.)

|          |                  |
|----------|------------------|
| lobal    | <i>banana</i>    |
| hlobal   | <i>my banana</i> |
| lobaltik | <i>bananas</i>   |

Note in this example that the suffix is retained throughout.

|        |                 |
|--------|-----------------|
| éjě    | <i>blood</i>    |
| hěiěel | <i>my blood</i> |

Note in this example that the suffix appears only in the possessed form.

#### f) Suffix {-bil}.

Not many words with this suffix formed after nominal roots were found to occur. An example would be si<sup>?</sup>bil *firewood-seller* formed after the nominal root si<sup>?</sup> *firewood*.

This word can be pluralized.



g) Suffix {-bal}.

No example with a nominal root was found to occur.

h) Suffix {-lal}.

Example:

koplal                  reputation (kop word)

This word can be possessed and pluralized. Not many words with this suffix were found.

i) Some words are formed by adding two suffixes to the nominal root, one of them being a plural suffix in i), j) and k).

Suffixes {il + -tik}.

ʔiʔiltik                  chile field  
 ʔumiltik                  pumpkin garden

These words can be possessed, and when possessed lose the -tik.

j) Suffixes {-al + -tik}.

Example:

ʔiʔnaltik                  camote field  
 nalaʂaltik                  orange grove  
 limahaltik                  lemon grove

When these words are possessed they lose the -tik.

k) Suffixes {-tik + -il}.

Examples:

tontikil                  a lot of stones  
 kontikil                  all my sons  
 teʔtikil                  grove, a lot of trees  
 wiʔtikil                  a mountain range

Note above the position of the suffix -tik in comparison with its position in i) and j). When pluralized -tik is not lost.

The suffix -tik has been described as a locative. But note the example kontikil above meaning *all my sons*.

l) Suffixes {-wan + eh}.

The semantics of these suffixes is not very clear to me. Probably -wan refers to the habitual action, and the eh is an agentive suffix.

Examples:

|                   |  |
|-------------------|--|
| <u>poštawaneh</u> | <i>doctor</i> ( <u>poš</u> <i>medicine</i> ) |
| <u>kintawaneh</u> | <i>musician</i>                              |

m - y) Suffixes [-ohel], [-ib], [-leh], [-lehal], [-aw], [-awil], [-awal], [-weh], [-iʔbal] and [-tamba], occurring with the verb roots (see section IV), were not found to occur with the noun roots.

#### NOMINAL BASE DERIVATION FROM VERB ROOTS

a) Suffix {-il}.

This suffix was not found to occur after verb roots.

b) Suffix {-el}.

Examples:

|              |  |
|--------------|--|
| <u>šiwel</u> | <i>fright</i> ( <u>šiw</u> <i>to be scared</i> ) |
| <u>weʔel</u> | <i>eating</i> ( <u>weʔ</u> <i>to eat</i> )       |
| <u>čonel</u> | <i>selling</i> ( <u>čon</u> <i>to sell</i> )     |
| <u>ʔučel</u> | <i>drinking</i> ( <u>ʔuč</u> <i>to drink</i> )   |

All these words can be possessed. The verbal roots above have the CVC shape.

## c) Suffix {-al}.

This suffix was not found to occur after verb roots.

## d) Suffix {-ol}.

Examples:

|              |                                       |
|--------------|---------------------------------------|
| <u>tohol</u> | <i>payment</i> ( <u>toh</u> to pay)   |
| <u>lokol</u> | <i>rent</i> ( <u>lok</u> to come out) |

These words can be possessed and pluralized. The verbal roots have the CVC shape.

## e) Suffix {-ul}.

This hypothetical suffix was not found to occur either with verb roots or with noun roots. (See III e.)

## f) Suffix {-bil}.

Examples:

|               |  |
|---------------|--|
| <u>bohbil</u> | <i>cutting</i> ( <u>boh</u> to cut)      |
| <u>čisbil</u> | <i>stitching</i> ( <u>čis</u> to stitch) |
| <u>čoʔbil</u> | <i>smearing</i> ( <u>čoʔ</u> to smear)   |

These words can be possessed. The verbal roots are of CVC shape.

## g) Suffix {-bal}.

This hypothetical suffix was not found to occur after verb roots.

## h) Suffix {-lal}.

This suffix was not found to occur after verb roots.

i) Suffixes {-il + -tik} expressing collective plural were not found to occur. Note suffix {-il} was itself not found to occur after verb roots. See above a) and compare with III i).



j) Suffixes {-al + -tik}.

These suffixes were not found to occur. (Same as above i.)

k) Suffixes {-tik + -il} were not found to occur. Same as above i) and j).

l) Suffixes {-wan + eh}.

Not many words with these suffixes were found. An example is provided below.

wa<sup>ʔ</sup>tewaneh      assistant (wa<sup>ʔ</sup>te to assist)

m) Suffixes {-oh + -el}.

Examples:

|         |                          |
|---------|--------------------------|
| nopohel | student (nop to learn)   |
| ʔilohel | visitor (ʔil to visit)   |
| kanohel | auctioneer (kan to want) |
| ʔikohel | messenger (ʔik to carry) |
| ɕakohel | holder (ɕak to have)     |

All these words can be possessed and pluralized. For suffix -el see b) above.

n) Suffix {-ib}.

At least one example was found to occur with this suffix.

moyib<sup>ʔ</sup>      porter (moy to mount)

This word can be possessed.

o) Suffix {-leh}.

Examples:

|        |                              |
|--------|------------------------------|
| kušleh | a living place (kuš to live) |
| nakleh | a seat (nak to sit)          |

These words can be possessed and pluralized. Verbal roots have the common CVC shape.

p) Suffixes {-leh + -al}.

Examples:

|                 |                                      |
|-----------------|--------------------------------------|
| <u>kušlehal</u> | <i>life</i> ( <u>kuš</u> to live)    |
| <u>samlehal</u> | <i>longing</i> ( <u>sam</u> to wish) |
| <u>teklehal</u> | <i>height</i> ( <u>tek</u> erect)    |

These words can be possessed. The verbal roots have CVC shape. For suffixes -leh and -al see above p) and III c).

q) Suffix {-aw}.

Examples:

|                         |  |
|-------------------------|--|
| <u>milaw</u>            | <i>fighting or killing</i> ( <u>mil</u> to kill) |
| <u>helaw</u>            | <i>people going to cinema</i> ( <u>hel</u> ?)    |
| <u>we<sup>?</sup>aw</u> | <i>eating</i> ( <u>we<sup>?</sup></u> to eat)    |

These words can be pluralized and possessed. The verbal roots have CVC shape.

r) Suffixes {-aw + -il}.

Example:

|                |                                      |
|----------------|--------------------------------------|
| <u>ʔilawil</u> | <i>onlooker</i> ( <u>ʔil</u> to see) |
|----------------|--------------------------------------|

This word can be pluralized and possessed. Its verbal root has CVC shape.

s) Suffixes {-aw + -al}.

Example:

|                |  |
|----------------|--|
| <u>milawal</u> | <i>fighter or killer</i> ( <u>mil</u> to kill) |
|----------------|--|

This word can be possessed and pluralized. Its root has CVC shape. Compare the word formed from the same root in q) above. There is further semantic specialization here.

t) Suffixes {-iy} + {-weh}.

Examples:

|                 |                                     |
|-----------------|-------------------------------------|
| <u>maliyweh</u> | <i>hoping</i> ( <u>mal</u> to hope) |
| <u>yakiyweh</u> | <i>being</i> ( <u>yak</u> to be)    |

These words can be possessed and pluralized. The roots have the CVC shape. {-iy} is a verbal suffix.

u) Suffixes {-iʔ + -bal}.

Examples:

|                   |  |
|-------------------|--|
| <u>lokesiʔbal</u> | <i>exporter</i> ( <u>lokes</u> to take (bring) out)              |
| <u>čamiʔbal</u>   | <i>a place where animals are enclosed</i> ( <u>čam</u> to hoard) |
| <u>tohkiʔbal</u>  | <i>a place where animals are born</i> ( <u>tohk</u> to be born)  |
| <u>čušuniʔbal</u> | <i>a place for urinating</i> ( <u>čušun</u> urinate)             |

These words can be possessed and pluralized.

v) Suffix {-tamba}.

This suffix indicates reciprocal action.

Examples:

|                 |                                   |
|-----------------|-----------------------------------|
| <u>saktamba</u> | <i>seizing each other</i>         |
| <u>piktamba</u> | <i>grasping each other's hair</i> |
| <u>nučtamba</u> | <i>flirting</i>                   |
| <u>hiptamba</u> | <i>driving each other</i>         |
| <u>čaptamba</u> | <i>getting ready</i>              |
| <u>ʔiltamba</u> | <i>visiting each other</i>        |
| <u>čuktamba</u> | <i>commanding each other</i>      |
| <u>miltamba</u> | <i>killing each other</i>         |
| <u>mahtamba</u> | <i>fighting each other</i>        |

All the roots in above examples have CVC shape.



## NOMINAL BASE INFLECTION FOR PERSON

There are two sets of possessive prefixes indicating first person, second person and third person.

The occurrence of the sets of possessive prefixes is conditioned phonologically. Set 1 occurs before consonants, except /ʔ/ and some /h/. Set 2 occurs before /ʔ/ and some /h/, both of which are lost. They are:

| set 1 | set 2 |                      |
|-------|-------|----------------------|
| h-    | k-    | <i>first person</i>  |
| ʔa-   | ʔaw-  | <i>second person</i> |
| s-    | y-    | <i>third person</i>  |

Some examples are given below to illustrate this distribution.

|              |                             |
|--------------|-----------------------------|
| <u>kal</u>   | <i>milpa</i>                |
| <u>hkal</u>  | <i>my milpa</i>             |
| <u>ʔakal</u> | <i>your milpa</i>           |
| <u>skal</u>  | <i>his (her, its) milpa</i> |
| <u>hoh</u>   | <i>crane</i>                |
| <u>hoh</u>   | <i>my crane</i>             |
| <u>ʔahoh</u> | <i>your crane</i>           |
| <u>shoh</u>  | <i>his crane</i>            |

Note in this example /h/ + /h/ becomes /h/. And /h/ after /s/ is retained. Elsewhere sometimes /h/ is lost in this position. See next example. So there are two kinds of morphophonemic {/H/}: one firm and the other infirm. The latter seems to be the most common.

|              |                            |
|--------------|----------------------------|
| <u>hol</u>   | <i>head</i>                |
| <u>hol</u>   | <i>my head</i>             |
| <u>ʔahol</u> | <i>your head</i>           |
| <u>sol</u>   | <i>his (her, its) head</i> |

Note in this example /h/ after /s/ is lost. This is an example for the commoner infirm {/H/}.

|              |                             |
|--------------|-----------------------------|
| hat          | <i>slice</i>                |
| <u>hat</u>   | <i>my slice</i>             |
| <u>?ahat</u> | <i>your slice</i>           |
| <u>sat</u>   | <i>his (her, its) slice</i> |

Note the morpropronemics as in the above example.

|                |                           |
|----------------|---------------------------|
| pišol          | <i>hat</i>                |
| <u>hpišol</u>  | <i>my hat</i>             |
| <u>?apišol</u> | <i>your hat</i>           |
| <u>špišol</u>  | <i>his (her, its) hat</i> |

Note in this example /s/ in the environment of /š/ (and /č/ becomes /š/). This is an example of regressive assimilation.

|                 |                    |
|-----------------|--------------------|
| ?askal          | <i>panela</i>      |
| <u>kaskal</u>   | <i>my panela</i>   |
| <u>?awaskal</u> | <i>your panela</i> |
| <u>yaskal</u>   | <i>his panela</i>  |

This is an example for set 2.

#### NOMINAL BASE INFLECTION FOR NUMBER

a) Number of the things possessed (that is, the plural of the thing possessed) may be indicated, though it is not always marked. The plurality may be marked by -etik which is analyzable into -et + -ik (see below).

Example:

|                   |                    |
|-------------------|--------------------|
| hmačit            | <i>my machete</i>  |
| <u>hmačitetik</u> | <i>my machetes</i> |

b) Number of the possessor of things (that is, the plural of the possessor) is usually indicated. Singular is not marked. The plural is marked by the suffixes -tik and -tikik for the first person plural possessors, and by suffix -ik for the second and third person plural possessors.

Some examples are given below. Note -tikik is used when the first person plural is a large number, around twenty or more. Otherwise the simple plural -tik is used.

|             |                            |
|-------------|----------------------------|
| hol         | <i>head</i>                |
| hol         | <i>my head</i>             |
| holtik      | <i>our heads</i>           |
| ʔahol       | <i>your head</i>           |
| ʔaholik     | <i>your (pl.) heads</i>    |
| ʔsol        | <i>his (her, its) head</i> |
| solik       | <i>their heads</i>         |
| hpišol      | <i>my hat</i>              |
| hpišoltik   | <i>our hats</i>            |
| hpišoltikik | <i>our hats</i>            |
| ʔapišol     | <i>your hat</i>            |
| ʔapišolik   | <i>your (pl.) hats</i>     |
| špišol      | <i>his (her, its) hat</i>  |
| špišolik    | <i>their hats</i>          |

Note that -tikik is simply composed of the two plural suffixes occurring in first person, and second and third persons. The interpretation given here to -tikik as meaning around twenty or more fits well with the rest of the semantics involving numbers in this language. See XIII Numerals and XIV Nominal Classifiers. The other interpretation that could be suggested is that -tik is *exclusive plural*, and -tikik is *inclusive plural* meaning to include the person or persons addressed.

c) When not possessed, the plural is indicated by -etik, analyzable into -et and -ik. -et indicates that the thing or things are not possessed. Note -ik is used to indicate plurality even when possessed. There is some ambiguity as to when the plural is to be used. That is, the singular and plural dichotomy is not one of "one" and "more than one". When the numbers reach about twenty, the plural suffix will be used, if it is used at all. This situation agrees very well with the vigesimal character of the numeral system. See classifiers (XIV) and numerals (XIII) for similar categorization.

Some examples:



|                     |           |
|---------------------|-----------|
| hun holol           | 1 head    |
| ʔoʃlahuneb' holol   | 13 heads  |
| htab' hololetik     | 20 heads  |
| hbak' hololetik     | 400 heads |
| hun ʔelawil         | 1 face    |
| ʔoʃlahuneb' ʔelawil | 13 faces  |
| ʔhtab' ʔelawiletik  | 20 faces  |
| hbak' ʔelawiletik   | 400 faces |

d) A probable collective plural.

Examples:

|            |                 |
|------------|-----------------|
| lobal      | banana          |
| lobalaltik | lots of bananas |
| nah        | house           |
| nahnahtik  | lots of houses  |
| snahnahtik | all his houses  |

In the above example -altik, analyzable into -tik and the rest of it, and -nahtik, analyzable in the same way into -tik and the rest of it seem to indicate collective plural. Because of lack of further examples, the collective plural is tentatively analyzed as having two morphemes as follows. The first morpheme has positional variants, which are reduplicative morpheme of the final syllable of the stem (as -al and -nah above). The second morpheme is -tik, which preferably is not to be identified with the suffix -tik of the first person plural. The first person plural suffix -tik marks a grammatical contrast with that of second and third person plurals, and further it is a marker of the plural of the possessor. The suffix -tik here, however, is a plural marker of things possessed or not possessed.

It is possible that V1 + tik might indicate collective plural irrespective of the final VC of the stems. If that is true then there are two collective plurals: One is composed of the reduplicative of the final VC of the stem followed by -tik. The second is composed of V1 followed by -tik.

a) Suffix {-tay}.

Probably a causative marker.

Examples:

|               |                          |
|---------------|--------------------------|
| <u>koltay</u> | <i>helps</i>             |
| <u>čomtay</u> | <i>wishes for a girl</i> |
| <u>kebtay</u> | <i>belches</i>           |

b) Suffixes {-ta + -lan + -tik}.

These suffixes together indicate a sort of distributive action, where a group of something is involved needing individual attention. -tik is plural marker. -ta (and -tay) a causative marker, and this is established on the basis that -talantik and -taylantik (see below) do not contrast semantically. -tay is established as a causative marker elsewhere. See f) below. -lan is considered to be the proper distributive suffix.

Examples:

|                    |                                    |
|--------------------|------------------------------------|
| <u>puktalantik</u> | <i>beat many...</i>                |
| <u>hačtalantik</u> | <i>smell (examine) many things</i> |
| <u>čomtalantik</u> | <i>sell many things</i>            |
| <u>kiktalantik</u> | <i>hate many people</i>            |
| <u>kehtalantik</u> | <i>guard many things</i>           |

c) Suffixes {-tay + -lan + -tik}.

Semantic implications are the same as that of b) above. For formal analysis see above.

Examples:

|                     |                          |
|---------------------|--------------------------|
| <u>kawtaylantik</u> | <i>greet many people</i> |
|---------------------|--------------------------|

d) Suffix {-ah}.

This is an intransitive marker.

Examples:

|                |                          |
|----------------|--------------------------|
| <u>ʔak</u>     | <i>place</i>             |
| <u>ʔakotah</u> | <i>dance</i>             |
| <u>ʔan</u>     | <i>circle, (people?)</i> |

|         |                  |
|---------|------------------|
| ʔanimah | <i>encircle</i>  |
| kahtah  | <i>turn into</i> |
| nahtah  | <i>feel</i>      |

The roots are of CVC shape. /ot/ in ʔakotah and /im/ in ʔanimah could not be identified. /t/ and /k/ in kahtah and nahkah are stem formatives which are not dealt with in this paper.

e) Suffixes {-ub ∞ -ob}.

These are intransitive markers.

Examples:

|       |                             |
|-------|-----------------------------|
| ʔikub | <i>hide oneself</i>         |
| yakub | <i>drink oneself</i>        |
| bilub | <i>become slippery</i>      |
| pahub | <i>become sour (rough?)</i> |
| hayub | <i>become thin</i>          |
| poʔob | <i>get torpid, numb</i>     |

f) Suffix {-Vlan}.

It is an iterative marker.

Examples:

|         |   |
|---------|---|
| tihulan | <i>ringing the bell</i>   |
| makulan | <i>stopping others by standing<br/>before them and stretching and<br/>waving the arms</i> |
| yoʔilan | <i>cooling something by blowing<br/>air onto it many times</i>                            |
| malulan | <i>pouring water down</i>   |
| sipulan | <i>tossing something many times</i>   |
| ʔotilan | <i>twisting</i>   |
| kutulan | <i>twisting one's body to relieve pain</i>  |
| ʃihulan | <i>sawing</i>   |



g) Suffix {-lahan}.

This suffix varies freely with {-lehan}. It indicates multiple action.

Examples:

|                 |   |
|-----------------|---|
| <u>kotlahan</u> | <i>crawl</i>                              |
| <u>mašlahan</u> | <i>grope</i>                              |
| <u>čiplahan</u> | <i>sing or repeat sounds (like birds)</i> |
| <u>weʔlahan</u> | <i>greet by shouting</i>                  |

h) Suffix {-tes}. This is a causative marker. Compare with a) above.

Examples:

|               |                             |
|---------------|-----------------------------|
| <u>waytes</u> | <i>put someone to sleep</i> |
| <u>yantes</u> | <i>make someone to flee</i> |

i) Suffix {-in}.

It is an intransitive marker.

Examples:

|                |                     |
|----------------|---------------------|
| <u>ʔil</u>     | <i>see</i>          |
| <u>ʔilin</u>   | <i>get vexed</i>    |
| <u>ʔat</u>     | <i>work; good</i>   |
| <u>ʔatin</u>   | <i>bathe</i>        |
| <u>ʔay</u>     | <i>be</i>           |
| <u>ʔayin</u>   | <i>be born</i>      |
| <u>tek</u>     | <i>stop</i>         |
| <u>tekeyin</u> | <i>stop oneself</i> |
| <u>nak</u>     | <i>feel</i>         |
| <u>nakayin</u> | <i>feel oneself</i> |

The function of -ey and -ay in tekeyin and nakayin is not clear.

j, k) Suffixes {-en} and {-an}.

These are transitive markers.

Examples:

|                         |                       |
|-------------------------|-----------------------|
| l <u>u</u> b <u>e</u> n | <i>make one tired</i> |
| mam <u>b</u> e <u>n</u> | <i>buy</i>            |
| kem <u>b</u> e <u>n</u> | <i>?</i>              |

If the root is of CVC shape -b- is stem formative serving to make extended allomorphs for bases from the roots. The stem-formatives are not dealt with here.

|                        |  |
|------------------------|--|
| pa <u>k</u> a <u>n</u> | <i>correct</i>                                 |
| lo <u>e</u> a <u>n</u> | <i>drink water from the hollowed<br/>palms</i> |
| ki <u>ç</u> a <u>n</u> | <i>peel something (a fruit) by teeth</i>       |

#### VERBAL BASE DERIVATION FROM VERB ROOTS

See section III for a statement on numbering.

The table below summarizes the distribution of the suffixes listed in this and in the following sections.

Occurring with noun and verb roots: -tay, -talantik, -taylantik, -ah, -ub', -ob'.

Occurring with verb roots alone: -Vlan, -lahan, -tes, -in, -en, -an.

#### VERBAL BASE DERIVATION FROM NOUN ROOTS

a) Suffix {-tay}. Same as in VII a).

Examples:

|                             |   |
|-----------------------------|---|
| po <u>š</u> ta <u>y</u>     | <i>cures (po<u>š</u> medicine)</i>                  |
| si <u>m</u> ita <u>y</u>    | <i>blow the nose (si<u>m</u> catarrh)</i>           |
| si <sup>?</sup> ta <u>y</u> | <i>aim to beat (si<sup>?</sup> firewood, stick)</i> |

b) Suffixes {-ta + -lan + -tik}.

Same as in VII b).

Examples:

|                    |                                   |
|--------------------|-----------------------------------|
| <u>puktalantik</u> | <i>distribute to many people</i>  |
| <u>ĕiktalantik</u> | <i>keep the pigs in order (?)</i> |

c) Suffixes {-tay + -lan + -tik}.

Same as in VII c).

Examples:

|                     |                              |
|---------------------|------------------------------|
| <u>kintaylantik</u> | <i>make fiesta</i>           |
| <u>ĕahtaylantik</u> | <i>hunt many rabbits (?)</i> |

d) Suffix {-ah}.

Same as in VII d).

Examples:

|               |  |
|---------------|--|
| <u>biktah</u> | <i>wear out (<u>bik</u> intestine)</i> |
| <u>kišnah</u> | <i>feel hot (<u>kiš</u> hot)</i>       |
| <u>wiʔnah</u> | <i>feel hungry (<u>wiʔ</u> hungry)</i> |

/t/ and /n/ preceding the suffix -ah are stem-formatives which are not considered in this paper.

e) Suffixes {-ub ∞ -ob}.

Same as in VII e).

Examples:

|              |  |
|--------------|--|
| <u>ĕulub</u> | <i>make oneself elegant (<u>ĕul</u> ?)</i> |
| <u>yašub</u> | <i>turn green (<u>yaš</u> green)</i>       |
| <u>ĕahub</u> | <i>get bitter (<u>ĕah</u> laziness)</i>    |
| <u>kanub</u> | <i>turn yellow (<u>kan</u> yellow)</i>     |
| <u>loċob</u> | <i>get curdy (loċ cleft (?))</i>           |

## VERBAL BASE INFLECTION FOR PERSON

a) Intransitive.

Person is marked for intransitives by a set of suffixes identical with those found in the pronominals.

First person is marked by the suffix -on  $\infty$  -ot.

Second person is marked by the suffix -at. And third person is unmarked.

Some examples are given below.

|                 |                            |
|-----------------|----------------------------|
| nuš <u>on</u>   | <i>I bathe</i>             |
| nuš <u>otik</u> | <i>we bathe</i>            |
| nuš <u>at</u>   | <i>you bathe</i>           |
| nuš <u>ateš</u> | <i>you (pl.) bathe</i>     |
| nuš             | <i>he (she, it) bathes</i> |
| nuš <u>ik</u>   | <i>they bathe</i>          |

|                 |                              |
|-----------------|------------------------------|
| lub <u>on</u>   | <i>I am tired</i>            |
| lub <u>otik</u> | <i>we are tired</i>          |
| lub <u>at</u>   | <i>you are tired</i>         |
| lub <u>ateš</u> | <i>you (pl.) are tired</i>   |
| lub             | <i>he (she, it) is tired</i> |
| lub <u>ik</u>   | <i>they are tired</i>        |

b) Transitive.

Person is marked for transitives by a set of prefixes identical with those found in the possessed nouns. But there are certain free variations here, which are absent for the prefixes of the possessed nouns.

|               | set 1 | set 2 |
|---------------|-------|-------|
| First person  | h-    | k-    |
| Second person | ?a-   | ?aw-  |
| Third person  | s-    | y-    |

Set 1 occurs before consonants except /ʔ/. Set 2 occurs before /ʔ/. Second person marker -?a always has the shape /?a/ before /h/. Before other consonants often it is either reduced to /ʔ/ or to zero. So is -?aw often reduced to /w/. /h/ after third person marker /s/ is lost. Initial /ʔ/ is always lost when, in combination, it becomes non-initial.



## Examples:

|                     |                             |
|---------------------|-----------------------------|
| <u>h</u> çet        | <i>I cut</i>                |
| <u>ʔ</u> açet       | <i>you cut</i>              |
| <u>s</u> çet        | <i>he (she, it) cuts</i>    |
| <u>h</u> çetik      | <i>we cut</i>               |
| <u>ʔ</u> açetik     | <i>you (pl.) cut</i>        |
| <u>s</u> çetik      | <i>they cut</i>             |
| <u>h</u> tah        | <i>I meet</i>               |
| <u>ʔ</u> atah       | <i>you meet</i>             |
| <u>s</u> tah        | <i>he (she, it) meets</i>   |
| <u>h</u> tahtik     | <i>we meet</i>              |
| <u>ʔ</u> atahik     | <i>you (pl.) meet</i>       |
| <u>s</u> tahik      | <i>they meet</i>            |
| <u>h</u> pas        | <i>I appear</i>             |
| <u>p</u> as         | <i>you appear</i>           |
| <u>s</u> pas        | <i>he (she, it) appears</i> |
| <u>h</u> pastik     | <i>we appear</i>            |
| <u>p</u> asik       | <i>you (pl.) appear</i>     |
| <u>s</u> pasik      | <i>they appear</i>          |
| <u>h</u> o ʔkoy     | <i>I ask</i>                |
| <u>ʔ</u> aho ʔkoy   | <i>you ask</i>              |
| <u>s</u> o ʔkoy     | <i>he (she, it) asks</i>    |
| <u>h</u> o ʔkoytik  | <i>we ask</i>               |
| <u>ʔ</u> aho ʔkoyik | <i>you (pl.) ask</i>        |
| <u>s</u> o ʔkoyik   | <i>they ask</i>             |
| <u>k</u> ik         | <i>I call</i>               |
| <u>ʔ</u> awik       | <i>you call</i>             |
| <u>y</u> ik         | <i>he (she, it) calls</i>   |
| <u>k</u> iktik      | <i>we call</i>              |
| <u>ʔ</u> awikik     | <i>you (pl.) call</i>       |
| <u>y</u> ikik       | <i>they call</i>            |
| <u>k</u> il         | <i>I see</i>                |
| <u>w</u> il         | <i>you see</i>              |

|               |                          |
|---------------|--------------------------|
| <u>yil</u>    | <i>he (she, it) sees</i> |
| <u>kiltik</u> | <i>we see</i>            |
| <u>wilik</u>  | <i>you (pl.) see</i>     |
| <u>yilik</u>  | <i>they see</i>          |

c) Indirective.

Suffix -b- occurs before -on *me* and -et *you* first and second person object suffixes respectively. And -bey occurs before third person object suffix which is unmarked. It likewise occurs before imperative -a.

Examples:

|                |                                     |
|----------------|-------------------------------------|
| <u>tohbon</u>  | <i>pay me</i> (i.e. it to me)       |
| <u>tohbet</u>  | <i>pay you</i>                      |
| <u>tohbey</u>  | <i>pay him</i> (her, it)            |
| <u>mambon</u>  | <i>buy me</i> (i.e. it for me)      |
| <u>mambet</u>  | <i>buy you</i>                      |
| <u>mambey</u>  | <i>buy him</i>                      |
| <u>kambon</u>  | <i>ask me</i> (i.e. it from me)     |
| <u>kambet</u>  | <i>ask you</i>                      |
| <u>kambey</u>  | <i>ask him</i>                      |
| <u>mambeya</u> | <i>you buy it</i> (i.e. it for him) |

VERBAL BASE INFLECTION FOR NUMBER

Number is marked by different suffixes in transitives and intransitives.

In intransitives as well as in transitives the singular is not marked.

In intransitives first and third person plural is marked by the suffix -ik. Second person plural is marked by the suffix -eš.

In transitives second and third person plural is marked by the suffix -ik, whereas first person plural is marked by -tik.

For examples see IX Verbal Base Inflection For Person.

## VERBAL BASE INFLECTION FOR ASPECT

a, b, c) Suffixes -oh, -eh and -em.

These suffixes indicate perfective aspect. The distribution of these suffixes is predictable to a certain extent. The suffixes -oh and -eh usually occur with transitives, whereas -em occurs with intransitives. The suffix -eh can be preceded by other suffixes like -ob', -tes, etc.

Examples:

|           |                                 |
|-----------|---------------------------------|
| ʔiloh     | <i>have visited</i>             |
| kayoh     | <i>have sung</i>                |
| kanoh     | <i>have asked</i>               |
| bikoh     | <i>have swallowed</i>           |
| čanoh     | <i>have scolded</i>             |
| ʔaloh     | <i>have said</i>                |
| mahoh     | <i>have paid</i>                |
| manoh     | <i>have bought</i>              |
| čuneh     | <i>have believed (?)</i>        |
| ʔateh     | <i>have worked</i>              |
| koponeh   | <i>have spoken</i>              |
| ʔoyineh   | <i>have made friendship (?)</i> |
| kupineh   | <i>have tasted</i>              |
| ʔelkaneh  | <i>have stolen</i>              |
| ʔakobeh   | <i>have given</i>               |
| kanobeh   | <i>have asked</i>               |
| kotesineh | <i>have danced</i>              |

Note above in ʔalkaneh the stem has CVCC shape. The root is ʔel.

|       |                     |
|-------|---------------------|
| hulem | <i>have come</i>    |
| talem | <i>have come</i>    |
| tunem | <i>have served</i>  |
| ʔočem | <i>have entered</i> |
| lokem | <i>have left</i>    |

|               |                     |
|---------------|---------------------|
| <u>ba</u> hem | <i>have gone</i>    |
| <u>mo</u> yem | <i>have climbed</i> |
| <u>ko</u> tem | <i>have arrived</i> |

d) Suffix -bel.

This suffix marks the continuative aspect.

Examples:

|                |                |
|----------------|----------------|
| <u>ʔa</u> lbel | <i>saying</i>  |
| <u>ka</u> mbel | <i>asking</i>  |
| <u>ʔi</u> lbel | <i>looking</i> |
| <u>ʔo</u> mbel | <i>selling</i> |
| <u>huy</u> bel | <i>beating</i> |
| <u>ma</u> mbel | <i>buying</i>  |

NOTES ON NOMINAL CONSTRUCTIONS

a) When compounds are possessed the second member of the construction is possessed according to the person (first, second or third). The first member of the construction, however, is not so possessed, but preceded by {s-}, the third person possessive. See section V.

Examples: Possessive prefixes are underlined.

|                              |                           |
|------------------------------|---------------------------|
| meʔ                          | <i>mother</i>             |
| wakaš                        | <i>cow or bull</i>        |
| meʔ wakaš                    | <i>cow</i>                |
| <u>sme</u> ʔ <u>h</u> wakaš  | <i>my cow</i>             |
| <u>sme</u> ʔ <u>ʔa</u> wakaš | <i>your cow</i>           |
| <u>sme</u> ʔ <u>š</u> wakaš  | <i>his cow</i>            |
| hol bilil                    | <i>name (of a person)</i> |
| <u>sol</u> <u>h</u> bil      | <i>my name</i>            |
| <u>sol</u> <u>ʔ</u> abil     | <i>your name</i>          |
| <u>sol</u> <u>s</u> bil      | <i>his name</i>           |



*b)* When compounds are possessed (see above *a)*) the plurality of possessors is marked by the same suffix {-tik} for all three persons. But note that when the thing possessed has only one root, the first person is marked by {tik} or {tik + ik}, and the second and third persons are marked by {ik}.

Examples:

|                |                       |
|----------------|-----------------------|
| smeʔ hwakaš    | <i>my cow</i>         |
| smeʔ hwakaštik | <i>our cow</i>        |
| smeʔ ʔawakašik | <i>your (pl.) cow</i> |
| smeʔ šwakašik  | <i>their cow</i>      |

#### NUMERALS

*a)* The main characteristics of the Tzeltal numeral system are:  
1. It is a vigesimal system. 2. The manner of counting is mainly anticipatory (described below).

*b)* All (but see *g)*, *i)* and *k)* below) numerals can be analyzed in terms of the following four types of simple constructions.

|        |                |  |
|--------|----------------|--|
| Type 1 | Absolutive     | root + suffix                              |
| Type 2 | Additive       | root + root + suffix                       |
| Type 3 | Anticipatory   | root + suffix + root +<br>(suffix or root) |
| Type 4 | Multiplicatory | root + root                                |

Complex constructions are formed from the above listed four types. The term suffix above always refers to the numeral suffix {eβ}. The root may include other suffixes but not {eβ}. Such complex forms are still referred to as root for the sake of simplicity in this section.

Procedural limitations: 1. IC constructions are not formed between the elements in an expression across the suffix. 2. When two roots succeed they always form an IC construction. 3. A suffix immediately following a root (and its expansion) always forms an IC construction with it.

*c)* The numerals two to twelve are formed after type 1 construction, that is, a root followed by a numeral suffix. This type is described as absolutive because the meaning expressed by the root is not altered

by the addition of the suffix. But it can be said that the suffix has added a component of meaning, in the sense that the roots with the suffixes are now complex free forms.

|    |                   |
|----|-------------------|
| 2  | $\text{čeb}$      |
| 3  | $\text{ʔošeb}$    |
| 4  | $\text{čaneb}$    |
| 5  | $\text{ho ʔeb}$   |
| 6  | $\text{wakeb}$    |
| 7  | $\text{hukeb}$    |
| 8  | $\text{wašakeb}$  |
| 9  | $\text{baluneb}$  |
| 10 | $\text{lahuneb}$  |
| 11 | $\text{bulučeb}$  |
| 12 | $\text{lahčayeb}$ |

Note the suffix {eb} which always occurs with those bases when they signify the values shown above as the numerals.

d) The numerals thirteen to fifteen are formed after type 2 construction, that is, root + root + suffix. The presence of suffix in this type is important, and it contrasts with type 4 construction below. Also note that no suffix intervenes between the roots, and thus it contrasts with the type 3 construction. This type is described as additive, because the numerical values expressed are equal to the addition of the values of the two roots in the construction.

|    |                      |  |
|----|----------------------|--|
| 13 | $\text{ʔošlahuneb}$  | ( $\text{ʔoš} + \text{lahun} + \text{eb}$ )  |
| 14 | $\text{čanlahuneb}$  | ( $\text{čan} + \text{lahun} + \text{eb}$ )  |
| 15 | $\text{ho ʔlahuneb}$ | ( $\text{ho ʔ} + \text{lahun} + \text{eb}$ ) |

Note the numeral suffix {eb} occurring with numerals 13 to 15 as with 2 to 12. The form lahun is analyzable into {lah} + {un}. {un} occurs as suffix elsewhere but it is not a numeral suffix and so it is not treated here as a separate item.

e) The numbers from sixteen to nineteen are formed after type 3 construction, that is, root + suffix + root + (suffix or root). The position of the suffix, that is, between the roots is significant for this type. Whenever a numeral suffix intervenes between two

roots, the construction is described as anticipatory and its value is obtained as follows. The value of the first root is counted as anticipating toward the value expressed by the root following the suffix.

|    |   |                    |
|----|---|--------------------|
| 16 | hunta <sup>b</sup>                                | (hun + + tab')     |
| 17 | čeb <sup>b</sup> ta <sup>b</sup>                  | (č + eb' + tab')   |
| 18 | ʔoš <sup>b</sup> eb <sup>b</sup> ta <sup>b</sup>  | (ʔoš + eb' + tab') |
| 19 | čane <sup>b</sup> eb <sup>b</sup> ta <sup>b</sup> | (čan + eb' + tab') |

Note above in the numeral for sixteen that the numeral suffix is not marked.

In the above numerals the numeral classifier (h) precedes {tab} in careful and deliberate speech. See g) below.

f) All the multiples of twenty from forty to three hundred and eighty are formed after type 4 construction, that is, root + root. Note no numeral suffix follows either one of the roots.

|   |         |
|---|---------|
| buluč <sup>b</sup> winik                                | 11 × 20 |
| lahč <sup>b</sup> aywinik                               | 12 × 20 |
| ʔoš <sup>b</sup> lahunwinik                             | 13 × 20 |
| čan <sup>b</sup> lahunwinik                             | 14 × 20 |
| ho <sup>b</sup> ʔlahunwinik                             | 15 × 20 |
| hunta <sup>b</sup> winik                                | 16 × 20 |
| čeb <sup>b</sup> ta <sup>b</sup> winik                  | 17 × 20 |
| ʔoš <sup>b</sup> eb <sup>b</sup> ta <sup>b</sup> winik  | 18 × 20 |
| čane <sup>b</sup> eb <sup>b</sup> ta <sup>b</sup> winik | 19 × 20 |

Above, the form winik means *twenty* or *person*. This form occurs only in complex expressions as given above.

g) Numerals one, twenty and four hundred are actually nouns with CVC structure and are preceded by the numeral prefix as the other nouns.

|                  |                     |                          |
|------------------|---------------------|--------------------------|
| hun              | <i>one</i>          | {h} + {hun}              |
| hta <sup>b</sup> | <i>twenty</i>       | {h} + {ta <sup>b</sup> } |
| hba <sup>k</sup> | <i>four hundred</i> | {h} + {ba <sup>k</sup> } |

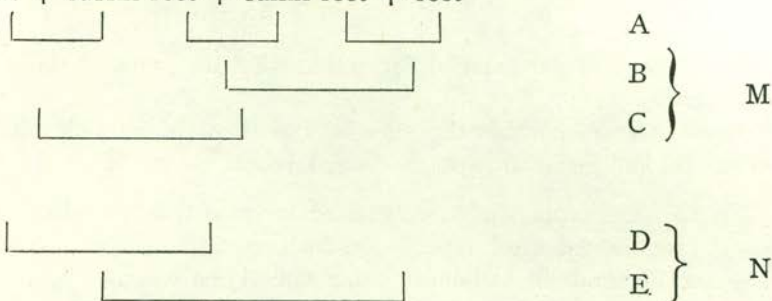
h) All the numerals from one to four hundred (but see g) and i) in this section) can be shown to be formed by the type of constructions discussed above, involving one or more of them. Some



examples involving more than one type of construction are given and analyzed below.

|                            |    |
|----------------------------|----|
| wašakeb' lahuneb' čaʔwinik | 38 |
| hun lahuneb' čaʔwinik      | 31 |

The above given numerals are analyzable into ICs as shown below.  
root + suffix root + suffix root + root



M and N give the alternative analysis. Witness that both of them give the same values to the numerals.

Note that on level A constructions type 1 and 4 occur.

On other levels type 3 construction occurs. Below, the meaning of the forms occurring in the above numerals are given.

|          |    |                                    |
|----------|----|------------------------------------|
| wašakeb' | 8  | (eb' - numeral suffix)             |
| hun      | 1  | (no-numeral suffix with this form) |
| lahuneb' | 10 | (eb' - numeral suffix)             |

i) Numerals 21 to 30 present a problem. They are given below and analyzed.

|                        |    |
|------------------------|----|
| hun hoeš' čaʔwinik     | 21 |
| čeb' hoeš' čaʔwinik    | 22 |
| ʔošeb' hoeš' čaʔwinik  | 23 |
| čaneb' hoeš' čaʔwinik  | 24 |
| hoʔeš' čaʔwinik        | 25 |
| wakeb' hoeš' čaʔwinik  | 26 |
| hunkeb' hoeš' ča winik | 27 |



|                               |    |
|-------------------------------|----|
| wašakeb' <u>hoeš</u> čaʔwinik | 28 |
| baluneb' <u>hoeš</u> čaʔwinik | 29 |
| lahuneš' <u>č</u> aʔwinik     | 30 |

- I) root + suffix hoeš root + root for 21, 22, 23, 24, 26, 27, 28, 29  
 II) root + ---- eš root + root for 25 and 30  
 II) can be rewritten as root + suffix root + root

In the expressions above for 21 to 30 what hoeš and eš signify is not very clear. hoeš is analyzable into ho and eš and thus eš in expressions for 25 and 30 is identifiable with the eš in hoeš. But when expressions for 25 and 30 are considered eš in them occurs in a position parallel to that in which the suffix {eb} occurs in other expressions. A semantic consideration would suggest that they have type 3 anticipatory construction. It also suggests that the other expressions also have the type 3 construction, and in them hoeš serves neither semantic nor constructional purpose. This is further strengthened by parallel expressions in the numerals from thirty one onwards where hoeš does not occur. Thus all of these expressions are considered to have type 3 anticipatory construction.

j) In this dialect the numeral 800 is not expressed by a single root as is the numeral 400. Instead it is expressed in a compound expression having type 4 multiplicative construction.

|         |     |                 |
|---------|-----|-----------------|
| čaʔbak' | 800 | čaʔ 2; bak 400) |
|---------|-----|-----------------|

k) Two more examples are given below involving constructions not discussed above.

|                  |       |
|------------------|-------|
| hbak' sok ʔolil  | 600   |
| čaneb' sok ʔolil | 4 1/2 |

ʔolil means *half* and sok means *with*. In the first expression above, ʔolil means "the half of what has been specified preceding sok". In the second expression it is simply "half". It appears that if the numeral specifying the number is not followed by the numeral suffix the first meaning is signified, and if the numeral is followed by the numeral suffix the second meaning is signified.

## NOMINAL CLASSIFIERS

In the data so far analyzed there are no instances where classifiers occur without being followed by nouns. But nouns are not always preceded by classifiers, nor by the same classifier when they are so preceded. Classifiers do not seem to occur with nouns when the nouns are possessed. It could not be checked satisfactorily whether the nouns which are preceded by classifiers could also occur without classifiers in the same situations or contexts (see d) below). Thirty five classifiers have been identified so far in the corpus. All these classifiers are listed below with examples. As in numerals and numbers (singular and plural) here also there is a cleavage. When the nouns are qualified by the number twenty or more the classifier is preceded by another morpheme {ta}. There is at least one exception to this statement, which has been described below in e).

There are not enough examples to specify the meaning of each classifier. Generally they specify a property of the noun that follows the classifier and this can be inferred from the translation meaning given for the examples below.

It was rarely possible to get the informant to give the nouns, when they are not possessed, without classifiers.

a) An example is given to show that the classifier does not occur when the nouns are possessed.

|                                       |                                 |
|---------------------------------------|---------------------------------|
| hku <sup>?</sup>                      | <i>my shirt</i> (possessed)     |
| hku <sup>?</sup> tik                  | <i>our shirts</i> (possessed)   |
| ča <sup>?</sup> lih k ku <sup>?</sup> | <i>two shirts</i> (unpossessed) |

b) Some examples are provided here to demonstrate that there is a cleavage when the nouns are qualified by number twenty or more. Note the occurrence of the morpheme {ta} in the following examples. This once again illustrates the vigesimal nature of the numerals.

|   |                             |
|---|-----------------------------|
| hpal kōp  | <i>a word</i>               |
| htab <sup>?</sup> ta <sup>?</sup> pal kōp                   | <i>twenty words</i>         |
| hbak <sup>?</sup> ta <sup>?</sup> pal kōp                   | <i>four hundred words</i>   |
| hčeš <sup>?</sup> wamal                                     | <i>a branch (of a tree)</i> |
| htab <sup>?</sup> ta <sup>?</sup> češ <sup>?</sup> wamaltik | <i>twenty branches</i>      |

|  |                            |
|--|----------------------------|
| hpis ton   | <i>a stone</i>             |
| ča <sup>?</sup> pis ton                          | <i>two stones</i>          |
| htab <sup>'</sup> ta pis ton                     | <i>twenty stones</i>       |
| hbak <sup>'</sup> ta pis ton                     | <i>four hundred stones</i> |
| hčiš ka <sup>?</sup> bal                         | <i>a hand</i>              |
| htab <sup>'</sup> ta čiš ka <sup>?</sup> baletik | <i>twenty hands</i>        |

Note in the above examples the occurrence of h- in certain examples. It is not a possessive prefix.

See f) below for an explanation.

c) List of classifiers. Classifiers are underscored.

|                          |                                    |
|--------------------------|------------------------------------|
| hpis ton                 | <i>a stone (a lumpy. . .)</i>      |
| hpam ha <sup>?</sup>     | <i>a pool of water</i>             |
| hpeht ha <sup>?</sup> as | <i>a zapote (?)</i>                |
| hpehč wah                | <i>a round tortilla</i>            |
| hpal čenek               | <i>a bunch of beans</i>            |
| hbal hun                 | <i>pile of ground</i>              |
| hbus lum                 | <i>a roll of paper</i>             |
| hpis poš                 | <i>a measure of trago</i>          |
| hpih <sup>'</sup> ahal   | <i>a tooth</i>                     |
| hpal kop                 | <i>word</i>                        |
| htul winik               | <i>a person (human being)</i>      |
| htul ha <sup>?</sup>     | <i>a drop of water</i>             |
| hčeš wamal               | <i>a branch of tree</i>            |
| hčahp čitam              | <i>a pair of pigs</i>              |
| hčol <sup>'</sup> išim   | <i>a row of maize</i>              |
| hčiš ka <sup>?</sup> bal | <i>a hand</i>                      |
| hkah lo <sup>?</sup> bal | <i>a leaf of banana</i>            |
| hkoht wakaš              | <i>a bull</i>                      |
| hkas wale <sup>?</sup>   | <i>a piece of sugar-cane</i>       |
| hkol čahan               | <i>a piece of cord, a string</i>   |
| hsehp bent               | <i>a twenty-cent coin</i>          |
| hšet wale <sup>?</sup>   | <i>a small piece of sugar-cane</i> |
| hšoht <sup>'</sup> ak    | <i>a roll of vine</i>              |



|                       |                                      |
|-----------------------|--------------------------------------|
| <u>him</u> teʔ        | <i>a stroke with a stick</i>         |
| <u>han</u> ʔaskal     | <i>a lump of brown sugar</i>         |
| <u>huht</u> ʔen       | <i>a pot</i>                         |
| <u>hmel</u> weʔlin    | <i>a kind of food</i>                |
| <u>hmak</u> teʔ       | <i>door</i>                          |
| <u>hyom</u> ʔak       | <i>a handful or bunch of zacate</i>  |
| <u>hlih</u> k mayʔuh  | (?)                                  |
| <u>hle</u> hʔ mum     | <i>a honey-comb (?)</i>              |
| <u>hla</u> m ʔambalam | <i>a class of four-footed animal</i> |
| <u>hla</u> hʔ yiʔim   | <i>a covering of corn, husk</i>      |
| <u>hlo</u> ʔ ʔenek    | <i>a handful of beans</i>            |

For prefix h- above see f) below. Note that this prefix gets assimilated when the following form begins with /h/.

d) Names of body parts are not preposed by the nominal classifier. But when body parts are found in pairs like eyes (*sitil*), hands (*kabal*), feet (*ʔokol*), the classifier *ʔehp* (*pair*) may precede them.

|                     |                 |
|---------------------|-----------------|
| <u>hun</u> nukil    | <i>a throat</i> |
| <u>hun</u> ʔuhtul   | <i>a belly</i>  |
| <u>hun</u> holol    | <i>a head</i>   |
| <u>hun</u> ʔohil    | <i>a cheek</i>  |
| <u>hun</u> ʔalawil  | <i>a body</i>   |
| <u>hun</u> kawalhil | <i>a jaw</i>    |

Note hun (*one*) in the above examples is not a classifier.

e) The general rule is that ta precedes the classifier when the noun is specified as twenty or more than twenty in number. Earlier it was stated that there is at least one exception to this general rule. It is the classifier bal. Firstly the classifier is preceded by another morpheme lah. Secondly the position of these two morphemes in the utterance differ in comparison with the position of other classifiers. See the examples below and compare them with the examples in b) in this section.

|   |                             |
|---|-----------------------------|
| <u>hbal</u> hun                           | <i>a roll of paper</i>      |
| <u>htab</u> hunetik <u>lah</u> <u>bal</u> | <i>twenty roll of paper</i> |



|   |   |
|---|---|
| h <u>bal</u> pohp                               | <i>a roll of mat</i>                    |
| htab pohpetik <u>lah</u> <u>bal</u>             | <i>twenty rolls of mat</i>              |
| h <u>bal</u> ʔašib <u>al</u>                    | <i>a roll of grass rain-coat</i>        |
| htab ʔašib <u>al</u> etik <u>lah</u> <u>bal</u> | <i>twenty rolls of grass rain-coats</i> |
| h <u>bal</u> kapa                               | <i>a roll of coat</i>                   |
| htab kapahiletik <u>lah</u> <u>bal</u>          | <i>twenty rolls of coats</i>            |

Note in these examples that ta does not occur. Instead lah occurs. Also lah and the classifier occur after the noun. Whereas in the examples given in b) the noun occurs after the classifier. This is so here in these examples when the noun is specified as one.

For an explanation of the prefix h- occurring initially in above given examples see f) below.

f) A prefix h- occurs before all the nominal classifiers in c) above. This prefix also occurs in b) and e), but not preceding the classifier. There it occurs before the numeral nouns for one, twenty and four hundred. See g) in section XIII on numerals. Before other numerals it does not occur. The other place it occurs is before the nominal classifiers as noted above, but only when the noun following the nominal classifier obviously refers to no more than one. This prefix h- may simply be described as the numeral prefix.

As was stated earlier, the morpheme ta always occurs, and precedes the classifier and follows the numeral, if that numeral is twenty or more. (For examples see b) above.) Otherwise the prefix h- occurs with the classifier. For the exception see c) above.

#### DEMONSTRATIVES

There is a three-way split in the demonstratives. The forms are given below.

|          |                         |
|----------|-------------------------|
| ha ʔlume | <i>there-yonder</i>     |
| ha ʔleye | <i>there- proximate</i> |
| ha ʔliye | <i>here</i>             |

These are analyzable into as follows:

haʔ + lum + e; haʔ + ley + e; haʔ + liy + e.

{haʔ} is the demonstrative base {lum}, {ley}, and {liy} are the forms indicating the relative distance. The function of {e} could not be indicated here.