TRAVAUX

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VOL. XIX

UNA CANGER

Five Studies
inspired by
Nahuatl Verbs in *-oa*

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NAHUATL VERBS IN -*OA*

With a summary in Spanish

by

UNA CANGER

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ACKNOWLEDGEMENT

INTRODUCTION

Nahuatl is a Uto-Aztecan language spoken in many scattered villages and towns in Mexico, El Salvador, and Nicaragua by over half a million people. It is the southernmost of the Uto-Aztecan languages, and its presence in Central Mexico and further south dates back only about a thousand years. Archaeological evidence in conjunction with 16th century chronicles based on native traditional relations tell us that Nahuatl speaking tribes came down into Central Mexico in waves from the North.

The last important tribe of Nahuatl speakers to enter the Valley of Mexico settled in Chapultepec some time in the thirteenth century. They founded Tenochtitlan on an island in lake Tetzcoco and proceeded to subjugate the other tribes in the Valley; later they expanded their empire by subduing more and more tribes. This last invading and conquering group of Nahuatl speakers became known as the Aztecs.

At the time of the Spanish conquest in the sixteenth century, a number of distinct dialects of Nahuatl were spoken in many disconnected areas. The extent of the scattered settlements of Nahuatl speakers and the existence of distinct dialects are partly due to the fact that the immigration took place in separate waves. Some dialect boundaries were also reinforced through innovations introduced probably by the Aztecs, innovations which had spread only to a varying number of areas in and around the Valley of Mexico at the time when the Spaniards cut off the dominant, but short-lived influence of the Aztecs, cf chapters II and IV.

Only few isolated migrations have taken place since the conquest, so the dialect situation found today can be assumed to be basically the same as that of the 16th century. Naturally, dialect differences have grown, since each dialect has continued to change individually during the past four hundred years; furthermore, some areas have developed unifying characteristics which they did not have in the 16th century and which separate them off from adjacent areas. This is true of for example Central Guerrero.

Actually, our knowledge about 16th century Nahuatl dialectology is based mainly on inferences made from evidence on the modern dialects. An example would be if modern dialect A differs from modern dialect B by dropping all vowels in certain environments in which environments dialect B retains the vowels, and if dialect A is attested in the 16th century and

had dropped those vowels already then; in such a case we must assume that the two dialects were distinct already in the 16th century, even though dialect B is not attested from that period. It seems probable that there still is much early material to be found in local archives, and such material from divergent dialects may of course deepen our understanding of Nahuatl dialectology tremendously and hopefully confirm our hypotheses.

Most of the known Nahuatl material from the 16th century is in the Tenochtitlan dialect or in dialects closely related to the Tenochtitlan dialect, generally known as Classical Nahuatl. This has given rise to the unfortunate misconception that in the 16th century there was a uniform kind of Nahuatl, and that the many distinct modern dialects have developed from or are corruptions of Classical Nahuatl. I have already said that the dialect situation of the 16th century is basically the same as that of today. In fact, some modern dialects still retain certain forms which were changed in Classical Nahuatl by Aztec innovations already in the 16th century, cf chapter IV.

Probably the greatest changes which Nahuatl has undergone since the Spanish conquest are due to influence from Spanish. All modern Nahuatl dialects have incorporated Spanish loan words from all the word classes, with the loan words elements from Spanish phonology have been introduced, and also features of syntax and semantics have been changed through contact with Spanish. It has been observed by Frances Karttunen and James Lockhart in a recent monograph (Karttunen and Lockhart 1976) that the various Nahuatl dialects have all reacted to Spanish contact in approximately the same way. Thus neither the "internal" language changes which have taken place in Nahuatl in the last four hundred years nor those changes provoked through Spanish contact have seriously distorted the general dialect situation.

Topics dealt with in the present volume are basically unaffected by influence from Spanish, and so the results of this influence is here mentioned only occasionally.

Material

Classical Nahuatl is richly documented from the 16th and 17th centuries both in an abundance of texts and in formal treatments. The first grammar of Nahuatl, by the Franciscan Andres de Olmos, was completed in 1547 (Olmos 1547), and by 1645 another four grammars had been published: by the Franciscan Alonso de Molina 1571, by the Jesuit Antonio del Rincon 1595, by the Augustian Diego de Galdo Guzman 1642, and by the Jesuit Horacio Carochi 1645. The first and extremely valuable dictionary, Spanish–Nahuatl and Nahuatl–Spanish, was composed by Alonso de Molina and published already in 1571.
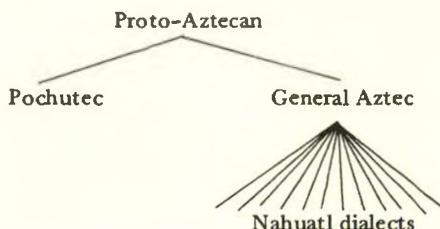
The modern dialects are much less comprehensively documented. We have small published dictionaries for two different dialects, Key and Key 1953 and Brewer and Brewer 1962. A number of articles on various topics and from many different dialects exist. However, no modern dialect has been as thoroughly described and exemplified as Classical Nahuatl.

A significant portion of the material on which the studies in this volume are based was collected on trips to the field in 1973, 1976, and 1977. I have personal field notes from thirteen localities, the result of informant work varying from one or two hours (for example Copalillo and Zoquitlan) to a total of eigh weeks (Zitlala and North Guerrero). The purpose of the field trips varied, but it was never to gather material specifically for this book. Examples quoted in the text for which no source is given are from my field notes or from Classical Nahuatl.

Dialect Subgroupings

In the article "El dialecto Mexicano de Pochutla" Boas in 1917 published the last remains of a quite divergent kind of Nahuatl, formerly spoken in the southern part of Oaxaca, which he had collected in 1912.

In agreement with Campbell and Langacker (1978), I assume that Pochutec — the dialect salvaged by Boas — constitutes a separate branch of what can be termed *Proto-Aztecan*, and that all the remaining Nahuatl dialects (including of course Classical Nahuatl) are daughters of the other branch called *General Aztec*.

Corresponding to Uto-Aztecan *t before *a, some Nahuatl dialects have λ, some have t, and still others have l,

$$\text{Uto–Aztecan *taka 'man' becomes} \begin{cases} \text{λa:ka–} \\ \text{ta:ka–} \\ \text{la:ka–} \end{cases}$$

According to these different reflexes of Uto-Aztecan *t* before *a* some
scholars distinguish between λ-dialects (Nahuatl), t-dialects (Nahuat), and
l-dialects (Nahual). However, in this book the term Nahua*tl* is used about
all the dialects deriving from General Aztec — in some cases maybe even
synonymously with General Aztec — because it is considered that the
change of Uto-Aztecan *t* to λ in the context before *a* took place already
in Proto-Aztecan times (cf p 88-89), and all the dialects have thus had λ
at one time.

A tentative and unsatisfactory classification of the Nahuatl dialects is
given in figure 1. The classification is tentative because of lack of data
from most areas, and it is unsatisfactory because branching charts cannot
be used to show the complex relationships which usually exist among
dialects. In this case, for example, it cannot be included in the chart that
I.a. La Huasteca shares a number of features with II.b.i Sierra de Puebla
and II.b.iv. Isthmus, cf Canger 1978.

A **Pochutec**

B **General Aztec**

    I   **CENTRAL**

        a. La Huasteca

        b. North Puebla
            Valley of Mexico
            Morelos
            Tlaxcala
            Central Puebla

        c. Central Guerrero

    II   **PERIPHERAL**

        a. Western
           i   Jalisco, Colima, Durango
           ii   Michoacán
           iii Almomoloa
           iv North Guerrero

        b. Eastern
           i   Sierra de Puebla
           ii   East Puebla (Chilac)
           iii South Guerrero
           iv Isthmus
           v   Pipil

Figure 1. Tentative and unsatisfactory classification of Pochutec and
the Nahuatl dialects.

The division into Central and Peripheral dialects is based on the results presented in chapters II and III. The other subgroupings have been established through the recognition of a number of dividing isoglosses and unifying features, cf Canger 1978. Some dialect areas are poorly covered, for example very little material is available from Tlaxcala, Central Puebla, and East Puebla. The entries under I.b. are unnumbered precisely because of lack of data, and it is unclear to me how that whole area (I.b.), for which I have no cover term, is to be divided. Generally I have preferred to establish too many rather than too few groups. The terms *dialect* and *dialect area* are not used consistently throughout the book.

The tabulation in figure 2 repeats that of figure 1, but in addition it contains the names of the villages from which material has been available to me and in parentheses references to the main sources of data for the individual villages; each village name is accompanied by a number which is keyed to the survey map found in the back of the book. Names of villages are all in italics and Mexican State names in capital letters. The following standard abbreviations for the Mexican States are used: Hgo for Hidalgo, SLP for San Luis Potosí, Ver for Veracruz, Gro for Guerrero.

A **Pochutec 48** (Boas 1917)

B **General Aztec**
    I   CENTRAL
        a. La Huasteca

Eastern Section:	*Las Balsas*, PUEBLA 17 (Hertle 1972, Canger 1976f)
	Huautla, Hgo 15 (Beller and Beller 1976)
	Tantoyuca, Ver 16 (Kaufman 1969a)
Western Section:	*Matlapa*, SLP 14 (Croft 1951, 1953a, 1953b, 1954)
	Cuatlamayán, SLP 13 (Kaufman 1969b)
b. North Puebla:	*Cuacuila* 18 (Canger 1976b)
	Atequexquitla, Xicotepec 19 (Hertle 1972)
	Atla, Pahuatlán 20 (Hertle 1972)
	Tlaola 21 (Hertle 1972)
Valley of Mexico:	Classical Nahuatl 32 (Molina 1571a, Carochi 1645, etc)
	San Martín de las Pirámides 31 (Gonzalez C. 1922)
	Milpa Alta 33 (Whorf 1946)
	Santa Ana Tlacotenco 33 (Canger 1973b)
MORELOS:	*Tepoztlán* 34 (Whorf 1946)
	Tetelcingo 35 (Brewer and Brewer 1962)
TLAXCALA:	*San Pedro Tlacuapan* 25 (Bright 1967)
Central Puebla:	*San Miguel Canoa* 26 (Hertle 1972)
	Tlaxcalancingo, San Andrés Cholula 27 (Hertle 1972)
	Ahuacatlán 22 (Hertle 1972, Lara M. 1976)
	Zongolica, Ver 30 (Goller, Goller and Waterhouse 1974)
c. Central Guerrero:	*Xalitla* 36 (Canger 1976k)
	Copalillo 37 (Canger 1976h)
	San Juan Tetelcingo 38 (Weitlaner 1940)
	Atliaca 39 (Mason and Pickett n.d.)

Aims and views

The present volume is published with two main aims: First, to demon-
strate that any one Nahuatl dialect is best understood and described in the
perspective of other Nahuatl dialects.

Under the assumption that more readers are familiar with Classical
Nahuatl than with any other dialects, I take examples from and refer
primarily and initially to Classical Nahuatl. But it has already been stated,
and it should become evident through these studies, that Classical Nahuatl
as a dialect holds no place apart. For the study of Nahuatl, the other dia-
lects are equally important.

Second, I wish to pass on a number of observations, made in the
course of my work with Nahuatl, to others who are occupied with related
problems, in the hope of instigating some discussion about the topics
treated.

It should be emphasized that these studies are not directed specifically towards professional linguists, but rather towards all those who work with Nahuatl: cultural anthropologists, historians, archaeologists, and linguists. I have made an effort to keep out unnecessary technical terminology and theoretical linguistic discussions. Furthermore, the studies are generally suggestive in nature and should thereby stimulate discussion and inspire further work. Many readers will no doubt find, for example, the first chapter excessively elaborate, a cumbersomely outdrawn discussion of a simple problem. However, I find that in the study of Nahuatl we desperately lack explicitness in our statements and substantiated argumentation.

The observations presented constitute the first step towards a comprehensive treatment of Nahuatl comparative morphology and phonology. But, convinced that the data available at present are insufficient for this task and wishing to invite others to participate in the discussion at this point, I have not attempted any committing and forbidding grand views.

In the book an interpretive dialectology is advocated in which a comparison of forms from different dialects result in an interpretation of these forms in all the dialects, collectively and individually. The interpretation agrees with the historical reconstruction which is a complementary result of the comparison. This is less an a priori theoretical stand than a position forced upon my by my desire to make the perspectives of the observations presented evident also to non-linguists, by endeavoring to describe "what actually happened".

No strong position is taken on the issue of distinguishing between what is reconstructed and what forms part of the underlying structure. On the contrary, it is found to be a particularly difficult problem in a study involving a dialect situation, in which the dialects naturally display varying degrees of conservatism or development.

The core of each of the five studies — possibly with the exception of the second — is some simple observation the treatment of which has naturally led to a number of other observations and also to suggestions and many open questions. They are in a sense the by-product of an ongoing investigation of certain Nahuatl categories of content: tense, aspect, position-motion.

Each study is self-contained and can be read independently of the other four. However, they are also closely related and presuppose and support each other. In the text, I refer to them as chapters in order to emphasize this interrelationship.

The order in which they are printed is meaningful and reflects the relationship between them.

Chapter I is purely synchronic and does not involve any historical reconstruction of linguistic forms. The argumentation found here is nevertheless basic for an understanding of chapters II and IV. But chapter I is

also a pedagogical exercise and a demonstration of how the analysis of a selected topic in some dialects can support an analysis of the same topic in some other dialects.

In chapter II — the most comprehensive of the five — a unifying reconstruction of the perfect in Proto-Aztecan is suggested, and the divergent development of the reconstructed forms is traced in a number of dialects. These divergent developments are then shown to be significant in the subgrouping of Nahuatl dialects, and they are related both to previous attemps at classifying Nahuatl dialects and to other classificatory features.

Generally, the main theme is in this chapter interspersed with a great many digressions which contain minor observations and suggestions with exemplifying data, all included in order to give others the possibility of using the material. However, the impatient reader who is primarily interested in the main subject of the chapter, can skip the many digressions and specifics which are found in sections labeled with small Latin letters.

Chapter III deals with the reconstruction and changes of forms within a certain group of verbs. It is an expansion of a minor section in chapter II, but since the setting is Proto-Aztecan, dialectology is not a major issue.

Chapter IV again expands an argument adduced in chapter III. Certain underlying forms, which are posited for Classical Nahuatl through internal reconstruction, are found to be attested in some more conservative modern dialects. The results arrived at bear upon Nahuatl dialect subgrouping and show something about the extent of Aztec influence shortly before the conquest.

In chapter V a semantic content is proposed for the suffix characterizing the group of verbs discussed in chapter III. This group of verbs is then compared or contrasted with two other groups of verbs whose defining suffixes are also assigned tentative semantic contents. A parallel to the proposed semantic distinctions is offered from a Mayan language, and it is suggested that these distinctions represent a Meso-American areal feature.

An appendix comprising all the Nahuatl verbs found in Molina's Nahuatl-Spanish dictionary furnishes data specifically for chapters II, III, and V and will hopefully also be useful in later work with Nahuatl verbs. The organization and limitations of the appendix are explained in a short statement preceding the appendix, pages 147–51.

Orthographical and other technical and terminological conventions

The sources of Nahuatl are many and multifarious, and the orthographical conventions are almost as multifarious as the sources themselves. For the sake of clarity, I transcribe forms from almost all my sources, using the same set of symbols wherever this can be done unambiguously and with no loss of information.

Figure 3 is a table of conversion showing in the left column the chosen set of symbols used in transcribing Nahuatl forms, in the center column the traditional orthography for Classical Nahuatl, and in the right column the corresponding symbols used by Brewer and Brewer in their dictionary of Tetelcingo Nahuatl. The dialect spoken in Tetelcingo differs from other dialects among other things by having substituted vowel quality for vowel quantity, and so a transcription of that dialect is somewhat more drastic than in the case of the other dialects. Phonemically, the many Nahuatl dialects are fairly uniform, and I believe that the transcription should be sufficiently transparent to make an explicit statement of conversion for all the quoted sources unnecessary.

Phonemic transcription	Classical Nahuatl	Tetelcingo after Brewer and Brewer
i	i	i
i:	ĭ, i	i
e	e	e
e:	ē, e	ie
a	a	a
a:	ā, a	ö
o	o, u	o
o:	ō, o, ū, u	u
p	p	p
t	t	t
k	c, qu	c, qu
kʷ	cu, qu, uc	cu
¢	tz	tz
č	ch	ch
s	ç, z	s
š	x	x
m	m, n	m, n
n	n	n
y	y, x	y, x
w	hu, u, uh	hu, b
l	l	l
λ (voiceless affricate)	tl	tl
h, ʔ (glottal stop)	nothing, h, ` , ^	j
V̄, V: (long vowel)		
V̆ (short vowel)		

Figure 2. Table of conversion for the phonemic transcription used throughout the book.

Generally, glottal stop and vowel length is included for Classical Nahuatl only in words attested in Carochi's grammar.

In all but two or three Nahuatl dialects the penultimate syllable receives primary stress, and so accentuation is indicated only exceptionally and where it differs from this rule. It is symbolized by a vertical line preceding the stressed syllable, for example in *koč'tika* 'he is sleeping' *ti* is the stressed syllable.

The transcription is phonemic and incorporates only few abstractions: underlying final and preconsonantal *y* is in my transcription written *y* even though it is pronounced *š*,

ki-piya   he guards it
ki-piy [kipiš]   he guarded it

Often morpheme boundaries are indicated by a hyphen as in *ki-piya*. Nasal consonants are in the chosen transcription given in their underlying form, for example,

λam*i*   it is coming to an end

λam [λan], [λã]   it has come to an end

i:m-a:ma-w   their paper

i:m-kaɬ [i:ŋ kaɬ]   their house

Whereven the phonetic form is not immediately obvious (as in the above two cases) or being discussed, it is quoted in square brackets [   ]. Occasionally the phonemic form is given between slanted lines, /kipiy/. When examples quoted in the text have not been transcribed, but appear exactly as in the sources, this is either explicitly stated or indicated by pointed parentheses, <quicoa> 'he buys it'.

Glosses are quoted between inverted commas when they appear in the text.

An asterisk indicates that the form it precedes is reconstructed, for example,

*ki:sa-ka: he went out

Both the relationship between underlying or phonemic forms and their corresponding phonetic forms and that between reconstructed and derived forms is expressed by a rule convention in which an arrow symbolizes the relationship, going from the more abstract to the less abstract. The relationship between phonemic *kipiy* 'he guarded it' and phonetic [kipiš] can be shown by the following rule:

kipiy ⟶ [kipiš]

or more generally

$$y \longrightarrow [š] / \underline{\quad} \#$$

which reads "y becomes [š] in the environment before word boundary". That which follows the slanted line is the environment conditioning the rule. # indicates word boundary. This rule can be recognized on the basis of evidence from one dialect, and it is productive, that is, still in force, or at least without exceptions. Therefore it is said to be synchronic even though it clearly introduces a certain time depth into the analysis.

The diachronic rule is distinguished as such by the asterisk preceding the form to the left of the arrow:

$$*t \longrightarrow \lambda / \underline{\quad} a$$

This rule says that reconstructed *t becomes λ in the environment before reconstructed *a. It is assumed that the elements constituting the environment in a rule, here *a*, belong to the same stage as that which appears to the left of the arrow, here *t, and asterisks will mostly be omitted in the environments. Some times, $>$ is used in the text instead of a full arrow, thus *t $>$ λ is the equivalent of *t $\rightarrow$ λ.

In order to symbolize the effect of a series of rules on some forms, the successive shapes of the form are listed below each other connected with vertical arrows indicating the rules which are either simply named or quoted to the left of the column:

	*kalta
*t → λ/_a	↓
	*kalλa
*a → i/'absolute suffix'	↓
	kalλi
λ → 1/1 _ or l–assimilation	↓
	kalli

This *derivation* shows that the absolutive suffix which is reconstructed as *-ta was changed through a rule affecting all cases of *t before *a; *-λa was subsequently changed to λi through a rule raising final *a to i. This rule is still diachronic, but not as general as the first rule; according to the environment it is restricted to the absolutive suffix; that is not correct, but will do here. The form produced by this rule, *kalλi*, has no asterisk and is thus not a reconstructed form, it is in fact an underlying form, and the last, synchronic l–assimilation rule changes it to the less abstract final form *kalli*.

The grammatical terminology used in the book is generally traditional. For the form often called *preterite* I have chosen the term *perfect*, wishing hereby only to point out that preterite may not be the most appropriate term for the form.

It has proven useful for me to operate with two different classifications of Nahuatl verbs: in chapter II four verb *classes* are set up according to the formation of the perfect, and in the appendix, the verbs are organized into seven *groups* that are defined mainly by phonological characteristics. The terms *class* and *group* for the two kinds of classification are arbitrary but used consistently throughout the book.

I. *OA* VERSUS *OWA* AND *IA* VERSUS *IYA*

A. Classical Nahuatl

In Classical Nahuatl there is no contrast between the two following se-
quences composed of two and three phonemes, respectively, *oa* and *owa*,
or between these two sequences, *ia* and *iya*. This can be deduced from the
many unsystematic orthographic variants found in the early sources. Thus,
for example, in Molina's dictionary one finds the same verb written either
poa or *poua*, and another either *veia* or *veiya*,

Contar algo. ni, tlapoa	Molina 1571a.I.29v
Leer. n, amapoua	Molina 1571a.I.77
Veia. ni. hazerse grande ..	Molina 1571a.II.155v
Crecer . . . veiya	Molina 1571a.I.31v

It is probable that there has been a range of variation in the actual pro-
nunciation of the two sequences, reflected in the orthographic variations.
However, observations made by the early grammarians on the pronuncia-
tion of Classical Nahuatl do not give us much idea of this range of varia-
tion. In order to supplement the information we have on the phonetics of
Classical Nahuatl, I shall comment briefly on the pronunciation of the
same sequences in a modern dialect.

The dialect spoken in Cuacuila near Huauchinango, Puebla, belongs to
the dialect area which Earl Brockway has called North Puebla Nahuatl
(Brockway 1963), and it is both phonologically, morphologically, and
lexically very close to Classical Nahuatl. In other words, observations made
about the phonology of Classical Nahuatl, for example by Olmos 1547,
Molina 1571b, and Carochi 1645 also apply to the dialect spoken in Cua-
cuila. This does of course not imply that the two dialects can be assumed
to be identical in all details.

In Cuacuila the realizations of the two sequences vary with rate of
speech and depending upon their position in relation to that of primary
stress. When the first vowel of the sequence is accented, there is only a
faint transitional glide, $\lambda a'pu\cdot^{(w)}a$ 'he counts', $ki\lambda a:'li\cdot^{(y)}a$ 'he puts it'; but
when the second vowel is accented, the glide is more distinct, $\lambda apu\cdot'waya$
'he counted', $ki\lambda a:li\cdot''yaya$ 'he put it'. I believe that the realization of the
first vowel is in both situations slightly longer than that of the short vowels
in the dialect.

As in most Nahuatl dialects, the accent regularly falls on the penulti-

mate syllable. In the quoted examples, the accentuation of the sequences in question shows that they belong to two syllables, and they can therefore not be diphthongs if we consider it to be a defining property of a diphthong that it belongs to a single syllable.

The lact of contrast between *oa* and *owa* and between *ia* and *iya* is interesting primarily because all four possibilities can reasonably be posited in the underlying or more abstract structure. This can be seen through a comparison of different but related forms.

In the following, the phonetic form which realizes both underlying *oa* and underlying *owa* will be written [oa] ~ [o^{w}a] ~ [owa] and that which represents both *ia* and *iya* is written [ia] ~ [i^{y}a] ~ [iya]. This is cumbersome, but necessary in order to keep in mind the lack of contrast as well as the phonetic variation.

1. ia − iya.

Example 1. The suffix indicating 'imperfect' is *ya*, thus *ki:sa* 'he goes out', *ki:sa-ya* 'he went out'; *temo* 'he goes down', *temo-ya* 'he went down'; and *nemi* 'he lives', *nemi-ya* 'he lived'. No verbs end in *-e*.

If there is no contrast between *ia* and *iya*, then obviously *nemi-ya* is an abstraction which I have constructed because I recognize [nemia] ~ [nemi^{y}a] ~ [nemiya] as being composed of two morphemes, namely *nemi* and *ya* as found in other forms.

But clearly that is not the only possible way to interpret the phonetic form [nemia] ~ [nemi^{y}a] ~ [nemiya]. Horacio Carochi says about the formation of the imperfect, "Formase este preterito imperfecto añadiendo al presente *ya*, o solamente *a*. si el verbo acaba en *i*. como de *ninemi*, yo viuo; *ninemia*, yo viuia." (Carochi 1645.424). He thus here chooses to interpret [ia] ~ [i^{y}a] ~ [iya] as *ia*, but must as a consequence, recognize two variants of the suffix indicating 'imperfect': *ya* and *a*. They are in complementary distribution: the variant *ya* is used with verbs ending in *a* or *o*, and the variant *a* is used with verbs ending in *i*, *ki:sa-ya* 'he went out', *temo-ya* 'he went down', and *nemi-a* 'he lived'.

It is not only in the case of imperfect formations that Carochi chooses to interpret and write [ia] ~ [i^{y}a] ~ [iya] as *ia*, he does so everywhere, probably because that was what he heard most frequently, and because his interpretation and notation of the spoken words were generally independent of grammatical considerations. Furthermore, grammarians and others before him had established certain orthographic conventions. But on this point the grammarians before Carochi agree on interpreting [ia] ~ [i^{y}a] ~ [iya] as *ia* in all situations.

The solution which I have suggested, recognizing only one variant of the suffix for 'imperfect', namely *ya*, and interpreting [nemia] ~ [nemi^{y}a]

~ [nemiya] as *nemiya*, is based directly on considerations of morphology, and wherever else in the language it is possible to interpret the sequence [ia] ~ [i^{y}a] ~ [iya] as one or the other of *ia* and *iya*, there are morphological arguments in favor of the chosen interpretations.

However, I wish to emphasize that both descriptions of the formation of the imperfect describe the situation adequately, and if we prefer one above the other, then that is a matter of choice and theoretical background.

Richard Andrews says about the formation of the 'imperfect', "In the imperfect, the /y/, although pronounced, is not orthographically represented after a stem ending in the vowel /i/ (/iya/ is spelled *ia*)." (Andrews 1975.16). It would be interesting to find out how Andrews knows that the /y/ was pronounced; his statement is in clear disagreement with what the early grammarians appear to have heard, and he seems unwilling to accept Carochi's description as a possible alternative solution.

Example 2. A great many verbs form the 'perfect' by dropping the final vowel, thus for example *ki:sa* 'he goes out', *ki:s* 'he went out'. This perfect formation contributes examples to a rule of devoicing, *ki-ka:wa* 'he leaves it', [kika:w^h] 'he left it' and *ki-yo:koya* 'he invents it', [kiyo:koš] 'he invented it'. [kiyo:koš] is the phonetic realization of underlying *ki-yo:koy*. The devoicing rule devoices *l*, *w*, and *y* in syllable final position. We get devoiced and slightly aspirated *l*^{h} and *w*^{h}, but the realization of a devoiced *y* is identical with the realization of the phoneme *š*. The recognition of this rule and of this particular realization of *y* allows the interpretation of [ia] ~ [i^{y}a] ~ [iya] as *iya* in for example the following verbs:

[kipia] ~ [kipi^{y}a] ~ [kipiya] < ki-piya   he guards
[kipiš] < ki-piy   he guarded it

[kičia] ~ [kiči^{y}a] ~ [kičiya] < ki-čiya   he awaits it
[kičiš] < ki-čiy   he awaited it

[etia] ~ [eti^{y}a] ~ [etiya] < etiya   it becomes heavy
[etiš] < etiy   it became heavy

And the perfect is seen to be formed regularly from these verbs, by dropping the final vowel. The present of both *ki:sa* and *piya* consists of CVCV, and the perfect of both is made up of CVC, *ki:s* and *piy* [piš].

Some scholars have not seen or not accepted this relationship between underlying *y* and [š], and so have had to formulate complicated statements concerning the formation of the perfect of verbs ending in *iya*. For example, Stanley Newman says:

Some verbs whose simple stem ended in -ya or -ia dropped the final syllable — the total syllable -ya, the final -a of -ia — and added s or x [Stanley Newman's x corresponds to my š]: o·-istas 'it became white' (istaya 'to become white'), o·-ni-k-yo·kox 'I invented it' (k-, 3rd person object, yo·koya 'to invent'), o·-ti-sis-ke? 'we agreed' (ti- 'we', sia 'to agree', -ke?, preterit subject plural), o·-ni-k-pix 'I held it' (pia 'to hold, to have')" Newman 1967a. 191).

The examples which Newman offers reveal a further complication, namely that y is in some cases realized not as [š], but as [s]. This is due to a progressive assimilation; in all the cases I know of in which y is realized as [s] there is another s somewhere to the left of it within the same root. Thus we do not get siy [siš] 'he agreed', but siy [sis], and from istaya 'it gets white' we get istay → [istaš] → [istas] 'it got white'. The perfect of seliya 'it sprouts' is realized [selis] 'it sprouted', and the perfect of kosawiya 'it becomes yellow' is realized [kosawis] 'it became yellow'.

However, in the perfect of the verb sentetiya 'it becomes unified' the [š] of the perfect is not assimilated because there is a root boundary between sen and te, thus sen+te-tiy [sentetiš] 'it became unified'.

The purpose of this detailed discussion of the perfect formation of a few specific verbs has been to show that verbs ending in [ia] ~ [iʸa] ~ [iya] and whose perfect is realized with final [iš] represent another case where the interpretation iya of the sequence [ia] ~ [iʸa] ~ [iya] gives much simpler morphological statements than does the interpretation ia.

Verbs in ia versus verbs in iya. Verbs in iya contrast with a large class of verbs, in which the final [ia] ~ [iʸa] ~ [iya] is best interpreted as ia. Most of these verbs are derived, and the [ia] ~ [iʸa] ~ [iya] forms part of several suffixes, e.g. tia, lia, wia. These verbs do not form the perfect in [iš], but in -ti?, -li?, and -wi?, respectively.

ki-mik-tia	he kills him
ki-mik-ti?	he killed him
ki-čo:ki-lia	he cries over it
ki-čo:ki-li?	he cried over it
ki-te-wia	he hits it with a rock
ki-te-wi?	he hit it with a rock

Here the arguments for preferring the interpretation ia of [ia] ~ [iʸa] ~ [iya] are not so immediately obvious as were the arguments for the interpretation iya in the two preceding cases.

I have already mentioned that the perfect is formed from a great many verbs by dropping the final vowel; and if we were to interpret the suffixes

here as *tiya*, *liya*, and *wiya*, we would have to have *ya*, a consonant *and* a vowel, drop in the formation of the perfect. On the other hand, this class of verbs behaves differently from most other verbs in many respects; in the perfect a final ʔ appears which is not found in the present, and the final *(y)a* is dropped also in the future and in the imperative, a feature which is unknown in the other verbs I have discussed so far.

There is one strong argument for assuming underlying *ia* in the case of the suffixes [tia] ∼ [ti\ya] ∼ [tiya], etc. and in other verbs which end in [ia] ∼ [i\ya] ∼ [iya] and which form the perfect in ʔ, namely the existence of the earlier discussed verbs in *iya*.

If we assume an underlying *ia* for the verbs now being discussed, the statement about the formation of the perfect will be very simple: "verbs in *ia* drop the final *a* and add the suffix ʔ". But if we assume an underlying *iya*, then we must in some other, probably arbitrary, way separate this class of verbs from the ones which form the perfect in *iy* [iš].

[kipi(y)a]	[kimikti(y)a]
ki–pi*ya*	ki–mik*tia*
[kipiš]	[kimiktiʔ]
ki–piy	ki–miktiʔ

The possibility of interpreting the [ia] ∼ [i\ya] ∼ [iya] from the suffixes *–tia*, *–lia*, *–wia*, etc. as *iʔa* is not discussed here because in the present connection we only need to assert that this *ia* must be interpreted *differently* from *iya*. The history of *ia* in the suffixes mentioned is discussed in chapter III.

We have now seen that the sequence [ia] ∼ [i\ya] ∼ [iya] can in some cases be assumed to represent underlying *iya*, and in other cases it represents underlying *ia*.

2. oa–owa. The arguments concerning underlying *owa* versus *oa* for the sequence [oa] ∼ [o\wa] ∼ [owa] run quite parallel to the ones brought forth in the case of [ia] ∼ [i\ya] ∼ [iya].

Example. A suffix indicating something like 'impersonal agent' has the shape *wa*, *yo:li* 'he lives', *yo:li:-wa* 'one lives'. It also occurs with verbs ending in *–a*, but with verbs in *–o*, we get a form in [oa] ∼ [o\wa] ∼ [owa], *temo* 'he goes down', [temoa] ∼ [temo\wa] ∼ [temowa] 'one goes down' which is most simply interpreted as *temo-wa*. In other words, the sequence [oa] ∼ [o\wa] ∼ [owa] represents *owa* in this case. We here have an example analogous to the one with the imperfect suffix *ya* for the sequence [ia] ∼ [i\ya] ∼ [iya].

Verbs in oa versus verbs in o:wa. There are two classes of verbs which end in [oa] ~ [o^{w}a] ~ [owa]. Verbs from the one class form the perfect in -*o:w*,

[kipoa] ~ [kipo^{w}a] ~ [kipowa]	he counts it
kipo:w [kipo:w^h]	he counted it

and verbs from the other class form the perfect in -*oʔ*,

[kipoloa] ~ [kipolo^{w}a] ~ [kipolowa]	he loses it
kipoloʔ	he lost it

In order to arrive at the simplest morphological statements about the formation of the perfect, we must posit underlying -*o:wa*, perfect -*o:w* for the former class and underlying *oa*, perfect -*oʔ* for the latter class, thus

ki-po:wa	[kipo(w)a]	he counts it
ki-po:w		he counted it
ki-poloa	[kipolo(w)a]	he loses it
ki-poloʔ		he lost it

This pair of verb classes is parallel to the pair discussed above, with one in -*iya* (perfect in -*iy* [iš]), and the other in *ia* (perfect in -*iʔ*), and the interpretation of the one pair supports that of the other and vice versa. Verbs in *iya* and *o:wa* simply belong to a large of class of verbs (class IV) which end in –CV, *ki:sa* 'he goes out', *nemi* 'he lives', *ki-yo:koya* 'he invents it' and *ki-po:wa* 'he counts it'; and verbs in *ia* and *oa* form a class of their own (class II) in -VV with many characteristics in common such as perfect in -Vʔ, and imperative and future formed without the final -*a*.

Length of o in owa. Carochi consistently writes <ōhua> for underlying *o:wa* and <oa> for underlying *oa*. The verb meaning 'grow dark' he writes <yohua>, not marking the *o* long. One major difference between for example *po:wa* and *yo:wa* appears in the perfect form, *po:w* and [yoak] ~ [yo^{w}ak] ~ [yowak]. I assume that Carochi's <ōhua>, <oa>, and <ohua> were all realized in the same way, also as regards length of the *o*, and I suspect that for these forms the notation was influenced by his morphological analysis. He probably transferred the long vowel from the perfect form, *po:w*, to the present and therefore wrote it <pōhua>, but the perfect of *yo:wa* still contains the same [oa] ~ [o^{w}a] ~ [owa] sequence and does not reveal anything about the length of the *o*, consequently Carochi marks it short — or rather he refrains from marking it long — everywhere.

The difference which he indicates between <ŏhua> and <oa> is not noted consistently by anybody else at that time, and it is surely based on different morphological analyses of the sequences, corresponding to the two interpretations I suggest.

In chapter III (p 102) it is shown that the sequence *–o:wa*, in verbs, in all cases has an underlying long vowel, /o:wa/.

It is worth noting that the sequences [ia] ~ [iʸa] ~ [iya] and [oa] ~ [oʷa] ~ [owa] are interpreted as *ia* and *oa* respectively only in these also otherwise peculiar verbs. If it were not for those verbs, the two sequences could everywhere be interpreted unambiguously as representing underlying *iya* and *owa*.

3. Summary. I wish to emphasize once more that it is a matter of choice whether one interprets the two sequences 1) as *iya* and *owa* in some cases and as *ia* and *oa* in others *or* whether one interprets them 2) in one of the following four ways: as *iya* and *owa*, as *ia* and *oa*, as *ia* and *owa*, or as *iya* and *oa* everywhere. The interpretation which I have chosen has the advantage of leading to simpler morphological statements.

But it also leaves many cases ambiguous. Only where the sequences can be segmented as in the case of the imperfect suffix *–ya* and the 'impersonal agent' suffix *–wa*, or where they alternate with some other form, for example, *ow, o, iy,* or *i* is it possible to determine the underlying form. In no other cases can an interpretation be given, and one must arbitrarily decide how to write the thus uninterpreted sequences. The words [siawi] ~ [siʸawi] ~ [siyawi] 'he is tired' and [koa:λ] ~ [koʷa:λ] ~ [kowa:λ] 'snake' are examples of such uninterpretable sequences.

I choose to write these sequences with *iya* and *o:wa*, thus *siyawi* and *ko:wa:λ*, basing this choice on the observation that underlying *ia* and *oa* occur only in the discussed class of verbs. Further support for this choice may be found in chapter III. A more explicit, but also more cumbersome notation would be, *i(y)a* and *o(w)a*, thus *si(y)awi* 'he is tired' and *ko(w)a:λ* 'snake'.

B. Modern dialects

So far I have discussed *ia* versus *iya* and *oa* versus *owa* in Classical Nahuatl only. I wish to claim that the suggested analysis of these sequences can and should be extended to all modern dialects. My claim is, then, that the underlying or abstract contrast between *oa* and *owa* and between *ia* and *iya* is useful in the analysis of all Nahuatl dialects, but also that that contrast is neutralized. In other words, it is everywhere appropriate to set up the distinction, even though it does not correspond to a phonetically expressed contrast.

1. Lack of phonetic contrast. Let me begin with the second part of the claim, namely that there is no contrast between *ia* and *iya* or between *oa* and *owa*, and for this discussion I have to assume that the analysis involving the underlying sequences *ia, iya, oa,* and *owa* the appropriateness of which I believe to have demonstrated for Classical Nahuatl, is valid for all the other dialects. For Classical Nahuatl I base the claim primarily on unsystematic orthographical variants found in the early sources. For the modern dialects the claim is based on evidence from a) linguistic descriptions of the dialects, b) transcriptions of published texts from a great many locations, and finally c) personal field work and tape recordings from some twelve villages in five or six dialect areas.

The problems encountered in using the material of others are fundamentally different from those encountered in working with one's own field notes and particularly with tape recordings. In the first case it is necessary to ascertain what the notation represents; is it phonetic or to what extent is it abstracted from a phonetic representation, and how much interpretation, based on considerations of morphology, has the analyst consciously or subconsciously introduced into his notation.

In working directly with an informant and with tape recordings, the linguist is confronted with the old problem of determining whether two sequences sound the same or different. An additional problem in the case at hand is that the sequences to be distinguished (or identified) do not occur in exactly the same environments; there are — to my knowledge — no mininal pairs.

The claim that there is no contrast between *ia* and *iya* and between *oa* and *owa* can be definitively proved for each dialect separately through instrumental examinations of the acoustic properties of the sequences in question. Such investigations would form a natural part of a general and more extensive comparative analysis of glide phenomena in Nahuatl dialects. However, they are not necessary for the present discussion.

Milpa Alta. The only one who has been concerned with these problems is Benjamin Lee Whorf. In "The Milpa Alta Dialect of Aztec" he says,

> Vocalic clusters occur in syllabic sequences of types V–V and V–VC. They are limited to the common (i+any other V) and the uncommon ao, eo — which however occur in some common words, e.g., λaon 'what?' and teoˑλ 'God' and its many derivatives. At first it might seem that (o+any other V) occurs, but it can be shown that such utterances are owV. On the other hand the iV utterances are not iyV, which also occurs, but sounds slightly different in rapid talk, the y then becoming prominent, so that λapiyani approches λapyani, while in the rapid pronunciation of ia, the common instance of iV, the i tends toward

(1), and in the case of -tia- with stressed a the result in rapid speech is (t³a) with a very short glide ə, or even (t'a), ki'ctiaya becoming ki'ct³aya, ki'ct'aya. Moreover the behavior of iyV and iV in certain morphophonemic alternations in which V disappears is different, and the behavoir of owV in similar alternations is analogous to that of iyV. Foot note, Viz. -ia>-i=-owa>-ow (with voiceless w) = -iya>-iš (š is a voiceless continuant analogous to voiceless w and probably stemming from pre-Aztec voiceless y). (Whorf 1946.369).

It is seen from this passage that Whorf bases his distinction between *ia* and *iya* on 1) some slightly different pronunciation of the two sequences, conditioned by *rapid speech* and *pretonic position of the i* and maybe primarily on 2) the different morphophonemic alternations which he has established for the two sequences. I find it probable that he has been particularly alert to any slight differences of pronunciation precisely because he has established the differing morphophonemic alternations. However, the quoted description disagrees with his own phonetic notations.

In an unpublished manuscript from about 1930 (the year Whorf did his field work in Milpa Alta and Tepoztlan), "Pitch tone and the "saltillo" in modern and ancient Nahuatl", Whorf has a short text in fine phonetic transcription with some examples which do not bear out his description from which I have just quoted. He has ontɛ'htɛ'mo'lyáya 'le buscaba' (p 6) and okimpyáya 'tenía' (p 10) representing *-lia-ya* and *-piya-ya*, respectively. -[pyaya] is what we would expect, but -[lyaya] disagrees with his description according to which we should have -[liaya] or -[l³aya] for *-lia-ya*. In the same text we also find one form rendered in two different ways, o'nɛ'miya and ya'tinɛmía both imperfect of *nemi* 'live'.

In the case of *oa/owa* he establishes no corresponding, different morphophonemic alternations and − perhaps therefore − is less intent upon perceiving different pronunciations of *oa/owa* under conditions of same rate of speech, same position in relation to stress, etc.

Texts from Milpa Alta collected and transcribed by various people suggest a great deal of random variation in the pronunciation of these sequences. Anyone who looks through some of these texts (Boas 1920, Gonzáles Casanova 1920, and Barlow 1960) will see that the four renderings *ia*, *iya*, *oa*, and *owa* are used and distributed unsystematically and in no way according to that which must be posited for the underlying structure.

From the material available I thus find it difficult to conclude anything about Whorf's data or about his description of them.

Zitlala. In the village Zitlala, Guerrero, and in a few other villages in that area the situation is quite different. In the dialect spoken there, a late rule

reduces *i* and *ē* to *y* in the position between a preceding dental (*t, n, l,* and possibly *s*) and a following vowel: i, ē → y/ t,n,l,s ___V; one of the resulting clusters, namely *ty*, is realized as *č*; and stress assignment takes place after the reduction.

kimiktia	→	ki'mikča	he kills him
kiši:nia	→	ki'ši:nya	he strews it
kihlia	→	'kihlya	he tells him
sie:wi	→	'sye:wi	he gets tired
tioh	→	'čoh	uncle
teo:pan	→	'čo:pan	church

This rule applies to verbs for which I posit underlying *ia, and* to those with underlying *iya*. That may be incorporated into the rule by adding an optional *y,* i,ē → y/ t,n,l,s ___ (y)V, but it will probably be more appropriate to formally "identify" *ia* and *iya* before the rule applies. The details are unimportant. Examples are,

	¢ope:liya	→	¢ope:lia	→	¢o'pe:lya	it becomes sweet
	tolontiya	→	tolontia	→	to'lonča	it becomes fat
versus			kimiktia	→	ki'mikča	he kills him

The presence of the *y* can be demonstrated by comparison with a compounded form with the same verbs,

	¢ope:liy-'tikah	[¢ope:lištikah]	it is becoming sweet
	tolontiy-'tikah	[tolontištikah]	it is becoming fat
versus	kimiktih-'tikah		he is killing him

It is seen that under the stated conditions, *ia/iya* is in this dialect treated as one phonetic sequence, and it undergoes the same change whether it represents underlying *ia* or underlying *iya*.

The specific difficulty involved in determining a possible contrast between *ia* and *iya* is here eliminated. The result is that the neutralization of the contrast between *ia* and *iya* can be unambiguously established.

This agrees well with the realization of *ia/iya* in other environments and of *oa/owa*. I have found no contrast; after *w* for example, both underlying *ia* and underlying *iya* are realized as [i:^{y}a]; and underlying *oa* and underlying *owa* are both realized as [o:wa],

λaškalwia	[λaškalwi:^{y}a]	she makes tortillas
šošo:wiya	[šošo:wi:^{y}a]	it becomes green
kipo:wa	[kipo:wa]	he counts it
kipoloa	[kipolo:wa]	he loses it

For most dialects it is at present impossible to arrive at any definitive

phonetic descriptions of the sequences under discussion. However, in none
of the dialects I have personally worked with have I detected any phonetic
contrast corresponding to the established underlying contrast.

2. *Underlying contrast.* Let us instead look at the theoretical possibilities
and their consequences for my claim about underlying contrasts.

In relation to the four underlying sequences which I have established
for Classical Nahuatl, three possible configurations of the phonetic realiza-
tions can be imagined:

underlying sequences	*ia*	*iya*	*oa*	*owa*
I	[ia], [iya]	[ia], [iya]	[oa], [owa]	[oa], [owa]
II	[ia]	[iya]	[oa]	[owa]
III		[iːya] [iya] [ia] [ya] . . .		[oːwa] [owa] [oa] [wa] . . .

In the first case we have a phonetic contrast between [ia] and [iya], and we
find both [ia] and [iya] for underlying *ia*, but they do not vary freely.
Some roots are always realized with [ia], and some are always realized with
[iya]. The same is true for underlying *iya*; and both [oa] and [owa] realize
underlying *oa* and *owa*. In other words, there is no correspondence between
the underlying sequences and their realizations. I know of no dialect for
which this perfectly hypothetical situation has been reported, and it would
make the suggested underlying sequences highly improbable.

The second possible configuration is again based on a phonetic contrast
between [ia] and [iya] and between [oa] and [owa], but this time there is
perfect correspondence between the posited underlying sequences and
their phonetic realizations. That is how Whorf has described the Milpa Alta
dialect, but only for *ia* and *iya*. This configuration will support and con-
firm the posited underlying sequences and the accompanying analysis of
the two verb classes.

The third possibility is the one I have suggested for Classical Nahuatl,
for the dialect of Cuacuila, and for the dialect of Zitlala. It involves no
phonetic contrast corresponding to the posited underlying sequences, but
a variety of possible realizations of *ia/iya* and *oa/owa*. I have recorded this
situation also for the other dialects I have worked with. Although this con-

figuration does not directly support the suggested underlying structure, it neither rules it out.

It appears that both configurations two and three are compatible with the underlying sequences and the analysis of verb classes II and IV suggested for Classical Nahuatl, but neither is a prerequisite of this analysis.

Having thus established the relationship between the second claim concerning phonetic realizations and the first claim dealing with the underlying structure, I can now proceed to a discussion of the analysis of the underlying structure in some modern dialects which appear to present certain problems.

La Huasteca. In the dialect area La Huasteca *w* is realized as [h] in word final position and word medially before *t* and *k*. Furthermore, the dialect has *h* corresponding in all environments to Classical Nahuatl ?. In word final position and before *t* and *k* the contrast between /w/ and /h/ (Classical Nahuatl ?) is thus neutralized; it may be impossible to determine whether a [h] in those positions represents /w/ or /h/.

Therefore the two classes of verbs crucial in the present discussion display more similarities in this dialect than in Classical Nahuatl.

La Huasteca	'buy'	'lose'
3. sg. pres.	[kiko:wa]	[kipolo:wa]
3. pl. perf.	[kiko:hkeh]	[kipolohkeh]
3. sg. fut.	[ki-ko:wa-s]	[kipolo:s]
Classical Nahuatl		
3. sg. pres.	[kiko(w)a]	[kipolo(w)a]
3. pl. perf.	[kiko:wke?]	[kipolo?ke?]
3. sg. fut	[kiko(w)as]	[kipolo:s]

The long vowel in [kiko:hkeh] as opposed to the short vowel in [kipolohkeh] is attested both for Cuatlamayán (Kaufman 1969b) and for Las Balsas (Canger 1976f). The fact that Las Balsas has a long vowel and Cuatlamayán a short vowel in the present of both verbs is of no importance here.

It would be natural to analyze the two dialects differently. In the dialect of La Huasteca the two paradigms, *ko:wa* and *polo:wa*, present no strong arguments for positing two different underlying sequences for [o:wa]. In fact, it would almost seem counterintuitive to suggest different underlying structures for *ki-ko:wa/ki-ko:h-keh* and for *ki-polo:wa/ki-polo:h-keh*. On the other hand, the symmetry does not extend to the full paradigm. The future is formed differently in the two dialects, and the form for the perfect is also different when the subject is in the singular, thus

3. sg. perf.	[kiko:hki]	[kipoloh(ki)]

However, [h] may well be interpreted as a realization of *w* also in these two forms.

A weightier argument against positing the same underlying structure for *ki-ko:wa/ki-ko:h-keh* and *ki-polo:wa/ki-poloh-keh* is the parallel found in verbs in *ia*,

	'guard'	'kill'
3. sg. pres.	[kipiya]	[kimiktiya]
3. pl. perf.	[kipiškeh]	[kimiktihkeh]
3. sg. perf.	[kipiški]	[kimiktih(ki)]
3. sg. fut.	[kipiyas]	[kimikti:s]

There is no reason to expect a *y* to be realized as [h], but there are many other examples in the dialect of the general Nahuatl rule according to which *y* is realized as [š] word finally and before another consonant.

The two verbs [polo:wa] and [miktiya] share the optionality of *ki* in the perfect form and the future form without the final *-wa* and *-ya*.

My suggestion is to analyze these verbs in analogy with the way they are naturally analyzed in Classical Nahuatl; namely by interpreting the present forms as having no glide, *polo:a* and *mikti:a*, and to consider the [h] (corresponding to Classical Nahuatl ʔ) found in the perfect form a representation of underlying *h* and not of underlying *w* (and *y*). This is a possible analysis because *owa* is not somewhere else in the dialect in contrast with *oa*.

Thus,

3. sg. pres.	[kipolo:wa]	ki-poloa	'lose'
3. sg. perf.	[kipoloh(ki)]	ki-poloh(-ki)	
3. pl. perf.	[kipolohkeh]	ki-poloh-keh	
3. sg. pres.	[kimiktiya]	ki-miktia	'kill'
3. sg. perf.	[kimiktih(ki)]	ki-miktih(-ki)	
3. pl. perf.	[kimiktihkeh]	ki-miktih-keh	
3. sg. pres.	[kiko:wa]	ki-ko:wa	'buy'
3. sg. perf.	[kiko:hki]	ki-ko:w-ki	
3. pl. perf.	[kiko:hkeh]	ki-ko:w-keh	
3. sg. pres.	[kipiya]	ki-piya	'guard'
3. sg. perf.	[kipiški]	ki-piy-ki	
3. pl. perf.	[kipiškeh]	ki-piy-keh	

The only argument for the suggested analysis found within the limits of

the dialect is symmetry with verbs in *ia*. So if we look at the dialect in isolation, we can *choose* either analysis depending on the inclination to paradigmatic symmetry or to some kind of phonological simplicity.

But if we look at the dialect spoken in La Huasteca as just one piece in a complex dialect situation, then we *must* adopt the analysis which gives the closest agreement with analyses of other dialects.

The fact that the verb forms can be described in two different ways in La Huasteca is not without interest in the general dialect comparison; it is not simply a matter of verb forms, but of the realization of *w* and of *h* (ʔ).

In their Curso del Nahuatl Moderno, Richard and Patricia Cowan de Beller have chosen to write both my *oa* and my *owa* as *ohua*, and the verbs are divided into three classes according to their perfect form, future form, etc., and in the dictionary the class membership of each verb is specified.

On the other hand, they have chosen to write [iya] in two different ways, in agreement with the class membership of the verbs and with the suggested underlying structure, thus < ía > for underlying *ia* and < iya > for underlying *iya*. However, nowhere in the book is it stated whether this orthographic convention represents a difference of pronunciation or just an underlying and abstract difference.

They write the verb forms in the following way,

Analysis here suggested	*Beller and Beller*	
ki-ko:wa	quicohua	'he buys it'
ki-ko:w-ki	quicojqui	'he bought it'
ki-poloa	quipolohua	'he loses it'
ki-poloh	quipoloj	'he lost it'
ki-miktia	quimictía	'he kills him'
ki-miktih	quimictij	'he killed him'
ki-piya	quipiya	'he has it'
ki-piy-ki	quipixqui	'he had it'

K. Croft (1953b) and T. Kaufman (1969b) do not set up two different underlying structures for *o(w)a* and *i(y)a*, and they both analyze the final *a* of *ia* and *oa* as (part of) a suffix,

	Analysis here suggested		*Croft*	*Kaufman*
pres.	ko:wa	[ko:wa]	kowa	kowa
perf.	ko:w-ki	[ko:hki]	kow-ki	ko:w-ki [ko:hki]
pres.	poloa	[polo:wa]	polo-wa	polow-a
perf.	poloh(-ki)	[poloh(ki)]	polo-h	polow(?) [poloh]
pres.	miktia	[miktiya]	mikti-a	miktiy-a
perf.	miktih(-ki)	[miktih(ki)]	mikti-h	mikti-h
pres.	piya	[piya]	piya	piya
perf.	piy-ki	[piški]	pis̃-ki	piy-ki [piški]

In Croft's writings it is not clear where or how it is specified which verbs add the suffix *wa/a* in the present.

Kaufman's dictionary entries will probably be *ko:wA* 'buy' *piyA* 'have', *polow* 'lose', and *miktiy* 'kill', and instructions will indicate that verb entries ending in *w* or *y* add *a* in the present, that those ending in *y* change the *y* to *h* in the perfect, and that capital letters represent segments which are dropped under certain specified conditions.

Sierra de Puebla. In his obfuscating book, Sierra Nahuat Word Structure (1970), Dow Frederick Robinson presents an analysis of the phenomena under discussion which differs considerably from the analysis suggested here for Classical Nahuatl, Cuacuila, Zitlala, and La Huasteca.

Under morphophonemics he gives a rule, "CVCi+-ya → CVCiá" and says about it, "the semi-vowel /-y/ is lost when preceded by a vowel of the same quality. This rule is not uniformly applicable to Nahuat as spoken in all sections of the dialect; it varies among speakers within towns and within families. All illustrations given in this grammar are in the full form, i.e., CVCiya." (Robinson 1970.16). Likewise: "CVCo+-wa → CVCoá, i.e., the semi-vowel /-w/ is lost when preceded by a vowel of the same quality. This rule is not uniformly applicable to Nahuat as spoken in all sections of the dialect; it varies among speakers within towns and within families. All illustrations in this grammar are given in the full form, i.e., CVCowa." (Robinson 1970.17).

I interpret these two rules and Robinson's additional comments to mean that no phonetic difference between *ia* and *iya* or between *oa* and *owa* corresponds to the underlying contrast here suggested, and that the variation he notes only has to do with idiolects. The rules also show that Robinson in some cases interprets [i(y)a] as *iya* and [o(w)a] as *owa*, but they do not show whether in other cases he interprets [i(y)a] as *ia* and [o(w)a] as *oa*. In other words it is not evident whether he sets up an underlying distinction between *iya* and *ia* and between *owa* and *oa*.

In the section on morphophonemics he has two more rules that are relevant here, 1) "morphophonemic rule lf: /–y/ is replaced by /š/ before /–t/, or, stems with final consonant /–y/ have an allomorph with final consonant /–š/ which occurs before /–t/, . . . ,

> *ahwiyaaya* + *–tok* → *ahwiyaaštok.*
>
> *tayokoya* + *–tok* → *tayokoštok.*

(Robinson 1970.17); and 2) "Morphophonemic rule 5: Voiced consonants are voiceless before voiceless segments. qowit 'tree' [kʷo.wit], qowtah 'forest' [kʷoW.tah]." (p 19); later a second environment is added to this rule, namely "preceding juncture" (p 52).

Now, /y/ is a voiced consonant, so both of the two rules apply to *y*, and in spite of the different formulation (" /–y/ is *replaced* by /–š/" as opposed to "voiced consonants *are* voiceless") the ordering of the rules must be significant: first *y* before *t* is realized as *š*, and then *y* before any other voiceless consonant is realized as voiceless *y*, [Y] (?).

Harold and Mary Key treat the realization of *y* in the following way: "š alternates with y. When a morpheme beginning with t or k is added to a root ending in y, š replaces the y of the root: tagoya *he shells corn:* tagoštok *he is shelling corn,* tapiya *he tends (animals)*: tapiškeh *herdsman.*" (Key and Key 1953a.55) and "y is voiceless preceding a voiceless phoneme or silence, voiced elsewhere: yaˑs *he will go,* nomaˑy *my hand*" (Key and Key 1953a.54).

Both Robinson and Key and Key agree that *y* has two different realizations preceding voiceless consonants: *š* and voiceless *y*; they also agree in restricting the occurrence of *š* but they disagree as to the conditions under which *š* occurs. Robinson has found *š* only preceding *t*, whereas Key and Key allow it preceding both *t* and *k*, but only in roots. An examination of the actually occurring forms and a comparison with other dialects lead to a different and in this case simpler result: *y* is realized as *š* before all voiceless consonants, for example also before *p* (cf Key and Key 1953b)

eˑyi	three
naˑwi	four
eˑy-pa [eˑšpa]	three times
naˑw-pa	four times

and also when it forms part of a suffix (Robinson 1970.119,17):

weˑyi	big
ki–weˑyi–*ya*	he enlarges it
ki–weˑyi–*y*–tilia	
[kiweˑyištilia]	he causes him to enlarge it for him

ahwiya˙-k	smell
ahwiya˙-*ya*	it smells
ahwiya·-*y*-tok	
[ahwiya s̆tok]	it is smelling

Since the word final vowel of verbs is not dropped in the perfect in this dialect, there are no cases of underlying final *y*.

Now, the cases of simple devoiced *y* which both Robinson and Key and Key posit are better analyzed as realizations of underlying *i*:

Classical Nahuatl	*Sierra de Puebla*	
ma:iλ	ma:it	hand, fist
i:-ma:	i-ma:y	his hand
λan-k^{w}a:iλ		knee
i:-λan-k^{w}a: (?)	i-tan-k^{w}a:y	his knee
mo-λan-k^{w}a:-keȼa	mo-ta:n-k^{w}a-keȼa	he kneels
to:ka:iλ		name
i:-to:ka:	i-to:ka(:)y	his name
	ki-to:kay-tia (Key 1964.366)	he names him
k^{w}e:iλ	k^{w}e:it	skirt
i:-k^{w}e:	i-k^{w}e:y (Key 1964.362)	her skirt
we:(y)i	we:yi	big
	mo-wey-tata (McQuown 1942.67)	your grandfather

Where nothing is indicated the source is Key and Key 1953b.

It is characteristic of the five roots in question that they end in $-V:i(\lambda)$, $-V:(y)i$. In Classical Nahuatl it seems that when the suffix $-\lambda$ is dropped, the *i* is absorbed by the preceding long vowel, which then stays long. In Sierra de Puebla, when in final position, this *i* following a long vowel is reduced to something which may sound like a voiceless *y*. In the compounded form *mo-ta:nk^{w}a:-keȼa* the *i* is dropped or absorbed like in Classical Nahuatl; but in *ki-to:kay-tia* it is retained, apparently in its reduced form, and that clearly shows that we are dealing with an underlying *i* rather than an underlying *y*, because according to even the most restrictive rule, underlying *y* is realized as [s̆] in the position before *t*. By the same arguments, the forms underlying *mo-wey-tata* must be *mo-we:i-tata*.

Thus, the general rule stating that any syllable final *y* — whether in word final position or followed by another consonant — is devoiced and realized as [s̆], which has been found to be valid in a number of Nahuatl dialects, applies also to the Nahuatl of Sierra de Puebla.

I have ascertained that Robinson interprets some cases of [i(y)a] as *iya* and some cases of [o(w)a] as *owa*. It turns out later in the book that he analyzes all incidents of [i(y)a] as *iya* and all incidents of [o(w)a] as *owa*. In treating the formation of the preterite he says,

> Preterite is marked by *-k/-h*. The allomorph *-k* occurs with all verb-syntagmemes which are stems and those particular themes which do not have the phonemic sequences /-iya/ or /-owa/. This phonemic sequence includes the stem-final vowel and the voice marker. The allomorph *-h* occurs with those themes which do have the phonemic sequence /-iya/ or /-owa/. The allomorph *-h*, however, is a morphophonemic representation of three different phonemes, i.e., /-h, -y, -w/. Regarding the themes which manifest the phonemic sequences /-iya/ and /-owa/, the preterite is formed by the apocopation of the voice vowel. Morphophonemic rule 5 states that voiced segments are voiceless preceding voiceless segments or juncture. Therefore, the preterite is /-iy/ for those themes with the phonemic sequence /-iya/; it is /-ow/ for those themes with the phonemic sequence /-owa/. The distribution of the different representations of the morphophoneme -H is determined phonologically: /-y/ is the voiceless manifestation which occurs following /-i/; /-w/ is the voiceless manifestation which occurs following /-o/; /-h/ occurs elsewhere. (Robinson 1970.52).

I understand this to mean that we have an allomorph (a variant of a morpheme) *-h* manifested by a morphophoneme H which represents three different phonemes /y/, /w/, and /h/. That allomorph occurs with themes in *-iya* and *-owa*.

Now Robinson states that the preterite is formed by the apocopation of the voice vowel. The voice vowel is the final *a* (cf Robinson p 55) of the voice markers, here *-ya* and *-wa*, so we get *-i-y* and *-o-w*; *-i-* and *-o-* are stem final vowels.

He goes on to say that final *y* and *w* are voiceless. But what do we do with the allomorph *h*, manifested by the morphophoneme H? Do we suffix it to the forms we have arrived at: *-i-y-H* and *-o-w-H*, and are these sequences realized *-iY* and *-oW*? Or does the consonant of the voice marker, *y* and *w*, change status and become an allomorph of the marker for preterite? I have found no answer to these questions in the quoted passage or anywhere else in the book.

Furthermore, Robinson says that the morphophoneme H is realized as *h* elsewhere, that is when it does not follow *i* or *o*, but where can that be? We were told originally that the allomorph *-h* occurs only (?) with themes in *-iya* and *-owa*, so it must always follow *i* or *o*. If it is true that the allomorph *-h* is nowhere manifested by the phoneme /h/, then why does he call it *h*?

His examples do not clarify the problems raised by the quoted passage, "čokak 'he cried' (čoka 'cry', -k pret); . . . čoloh 'he fled' (čolo 'flee', -H [-w] pret); kitamih 'he finished it' (ki- 3sg obj, tami 'finish', -H [-y] pret); . . . kičololtih 'he chased him' (čolo 'flee' -tiH [-tiy] cs vi); kičipawtiy 'he made it clean' (čipa 'clean', -w vi, -tiH [-tiy] cs vi). . . . (p 53).

čokkeh 'they cried' (čok- 'cry', -keh pret pl subj); čolowkeh 'they fled' (čolo- 'flee', -w vi); kičololtiykeh 'they chased him' (ki- 3sg obj, -ltiy cs vi); kičipawtiykeh 'they made it clean' (čipa- 'clean', -w vi, -tiy cs vi) (p 53).

The examples are not internally consistent. Compare his kičololtih (čolo 'flee' -tiH [-tiy] cs vi) with kičipawtiy (čipa 'clean', -w vi, -tiH [-tiy] cs vi). They appear to be analyzed in the same way, and yet phonemically he writes them differently. In the first case, H after i is written h, and in the second it is written y. Still another problem: how is it that the y in kičololtiykeh and in kičipawtiykeh is not realized as [š] in agreement with the general rule concerning y, discussed page 40.

According to the none too clear statement about the formation of the preterite, one would rather expect the following forms, here contrasted with those given by Robinson:

expected morphophonemic forms	expected phonemic forms	expected phonetic forms	Robinson's forms
čoloH	čolow	čoloW	čoloh
kitamiH	kitamiy	kitamiY	kitamih
kičololtiH	kičololtiy	kičololtiY	kičololtih
kičipawtiH	kičipawtiy	kičipawtiY	kičipawtiy
čoloHkeh	čolowkeh	čoloWkeh	čolowkeh
kičololtiHkeh	kičololtiykeh	kičololtiYkeh	kičololtiykeh
kičipawtiHkeh	kičipawtiykeh	kičipawtiYkeh	kičipawtiykeh

If we compare his examples with cognate forms in Classical Nahuatl,

Robinson	Classical Nahuatl	
čoloh	čolo?	he fled
čolowkeh	čolo?ke?	they fled
kičololtih	kičololti?	he chased him
kičololtiykeh	kičololti?ke?	they chased him
kičipawtiy	(kičipa:wti?)	he cleaned it
kičipawtiykeh	(kičipa:wti?ke?)	they cleaned it

we find that corresponding to Classical Nahuatl ? we here have sometimes w, sometimes y, and sometimes h.

I suspect that Robinson's treatment of the preterite formation has

somehow come to include two conflicting interpretations of the situation, and that may explain the different renderings of H in *kičololtih* and *kičipawtiy*.

The most serious problem with Robinson's analysis of the preterite formation is that the forms he cites are not found in any of the other sources from the dialect. In all other sources, we find *h* (sometimes written j) for Robinson's H.

In an article on "Puebla (Sierra) Nahuat Prosodies" from 1969, Robinson himself has *ki"nihtoh* 'he told them.*(*p 20) (Classical Nahuatl *kimiʔtoʔ*) and *čoloh* 'fled' (p 24). Key writes *motalo·h* 'he ran' (Classical Nahuatl *moλaloʔ*), *čolohtinemi* 'he goes along furtively' (Classical Nahuatl *čoloʔtinemi*), *kis̆i·tih* 'he awakened him' (Classical Nahuatl *kiʔsitiʔ*), and *kita·wilih* 'it lighted for him' (Classical Nahuatl *kiλa:wiliʔ*) (Key 1960.142). All these forms agree perfectly with the pronunciation of an informant I have worked with from that area.

In his analysis of the verbs which correspond to class II verbs in Classical Nahuatl, Robinson has thus introduced two suffixes *ya* and *wa*, his voice markers, with no supporting arguments; the *y* and *w* of these suffixes are generally not realized in the present (cf his morphophonemic rules), and there is not a trace of them in any of the other forms. However, this analysis has led him to set up preterite forms that not only disagree with the corresponding forms in other dialects, but which are also non-existent in the dialect he is describing. *čolow*, *čolowkeh* and *kičololtiy*, *kičololtiy-keh* are products of Robinson's analysis; the actual forms are *čoloh*, *čoloh-keh* and *kičololtih*, *kičololtihkeh*.

The dialect of the Sierra de Puebla represents no exception to my two claims, the contrast between *iya* and *ia* and between *owa* and *oa* is neutralized. And it is appropriate to set up the distinction in the underlying structure since the analysis of class II verbs which I have suggested for other dialects is appropriate also for this dialect:

	'lose'	'buy'
3. sg. pres.	ki-poloa [kipolo(w)a]	ki-ko:wa [kiko(w)a]
3. sg. perf.	ki-poloh	ki-ko:wa-k
3. pl. perf.	ki-poloh-keh	ki-ko:w-keh [kiko:wkeh]
3. sg. fut.	ki-polo-s	ki-ko:wa-s
3. sg. pres.	ki-miktia [ti(y)a]	ki-piya [pi(y)a]
3. sg. perf.	ki-miktih	ki-piya-k
3. pl. perf.	ki-miktih-keh	ki-piy-keh [pis̆keh]
3. sg. fut.	ki-mikti-s	ki-piya-s

C. Conclusion

In this chapter I have drawn attention to the sequences [ia] ∼ [i^{y}a] ∼ [iya] and [oa] ∼ [o^{w}a] ∼ [owa] in the hope that all those who work with modern Nahuatl dialects will try to determine the phonetics and the underlying structure of these sequences in their own dialect.

A second purpose has been to show that the suggested analysis of class II verbs and, in contrast, also that suggested for class IV verbs, is appropriate in a number of dialects. In agreement with the interpretive dialectology here advocated, it is my general contention that the analysis which is valid in a series of dialects must be preferred also for the dialects in which it appears as only one of several possible analyses. But according to the purpose of the description, a competing analysis may in some cases be preferred.

II. THE FORMATION OF THE PERFECT, WITH HISTORICAL AND DIALECTAL PERSPECTIVES

A. Perfect formation in Classical Nahuatl

1. Singular. In Classical Nahuatl verbs fall into four classes, determined by the manner in which they form the perfect. In the following summary, these four verb classes and their characteristic formations are presented as they appear on the surface.

Class I.

There is a restricted class of verbs that suffix ʔ to the form of the present tense:

ki-k^{w}a	he eats it
ki-k^{w}a-ʔ	he ate it

Class II.

Verbs which end in either *ia* or *oa* drop the final *a* and suffix ʔ:

ki-miktia	he kills him
ki-mikti-ʔ	he killed him
ki-poloa	he loses it
ki-polo-ʔ	he lost it

Class III.

A great many verbs form the perfect by suffixing *k* to the form of the present tense:

čiʔča	he spits
čiʔča-k	he spat
k-itki	he carries it
k-itki-k	he carried it
k-i	he drinks it
k-i-k	he drank it
ki-maka	he gives it to him
ki-maka-k	he gave it to him
λa-mo:λa	he throws something
λa-mo:λa-k	he threw something
pano	he crosses (a river)
pano-k	he crossed (a river)

toma:wa	he becomes fat
toma:wa–k	he became fat
¢ope:liya	it becomes sweet
¢ope:liya–k	it became sweet

Class IV.

Finally, some verbs form the perfect by dropping the final vowel:

ki:sa	he goes out
ki:s	he went out
ki–no:¢a	he calls him
ki–no:¢	he called him
miki	he dies
mik	he died
ki–piya	he guards it
ki–piy [kipɨs]	he guarded it
ki–ko:wa	he buys it
ki–ko:w	he bought it

In these four classes, we are dealing with three ways of forming the perfect:
1) a suffix ʔ, 2) a suffix *k*, and 3) loss of stem final vowel. In class II we
have both loss of stem final vowel and the suffix ʔ.

Such a classification and the three apparently unrelated formations for
the perfect naturally lead one to ask, on what basis are the verbs assigned
to the four classes? Are there semantic distinctions corresponding either
to the four classes or to the three ways of forming the perfect? Is the
assignment determined by phonological or morphological criteria; or does
the distribution on the four classes and the choice of perfect formation
appear to be arbitrary and thereby possibly conceal some semantic or
other distinctions lost in the past history of the language?

The class membership is not arbitrary. Both phonological and semantic
criteria are needed in order to delimit the four classes.

The six verbs of class I may all be described as ending in a long vowel
underlyingly:

k^wa:	k^wa–ʔ	eat
ma:	ma–ʔ	hunt
ma:ma:	ma:ma–ʔ	carry
pa:	pa–ʔ	dye
so:ma:	so:ma–ʔ	frown in anger
iwa:	iwa–ʔ	send

Vowel length is generally a difficult feature to work with in Classical Nahuatl because it is not indicated in the traditional orthography. But the grammarian Horacio Carochi was aware of distinctions in vowel length and their importance. In the abundant examples in his Arte de la lengva mexicana (1645), he notes vowel length consistently enough to make it an extremely useful source also in this respect.

The information on vowel length which can be extracted from Carochi's Arte is confirmed and supplemented by the many modern Nahuatl dialects.

The quite divergent and now extinct dialect spoken around Pochutla, Oaxaca, Pochutec, had lost all distinctions in vowel length, but its vowel system contains some reflexes of former length distinctions. Thus, for example, Proto–Aztecan and Classical Nahuatl ă corresponds to Pochutec e, and Proto–Aztecan and Classical Nahuatl a: corresponds to Pochutec a (cf Campbell and Langacker 1978.94), for example

| Classical Nahuatl | mása:λ |
| Pochutec | mesát |

The material on Pochutec is found in Boas 1917.

However, Carochi and the modern dialects give no direct information in support of my claim that the six verbs of class I end in a long a.

In general we find no length distinctions for final vowels, either in Classical Nahuatl or in most of the modern dialects.

But there is evidence for positing a difference between *underlying* short and long vowel in final position and for positing a rule which shortens all long vowels in utterance final position. For the six verbs in question, for example, the form for the future and the applicative verbs derived from them display a long a,

/ki-k^{w}a:-s/	[kik^{w}a:s]	he will eat it
/ki-k^{w}a:lia/	[kik^{w}a:lia]	he eats it for/from him
/ki-k^{w}a:/	[kik^{w}a]	he eats it

The applicatives of k^wa, ma, ma:ma, pa, and iwa are attested with a long vowel in Carochi (1645), cf Adrian, Canger et al. 1976. But in the applicative of so:ma Carochi does not mark the a long; however he is not absolutely consistent in his use of diacritics, and the mere fact that the final a is not changed to i before the applicative suffix lia points to a long vowel, cf pages 118-19. Furthermore, a form of the word is found with the reflex of a long a in the Tetelcingo dialect, <sumŏli> /so:ma:li/ 'anger' (Brewer and Brewer 1962.223). Therefore I assume that the verbs in class I end in an underlying long vowel.

The the sake of completeness, it should be added that the difference between long and short vowel is neutralized also before ʔ.

The verbs of class II have already been defined as ending in *ia* or *oa;* and all verbs which end in *ia* or *oa* belong in this class. The *ia* and *oa* with which I define the verbs of class II are the underlying sequences *ia* and *oa* established in chapter I, and I am here not concerned with the phonetic realizations of these sequences. This class of verbs is quite numerous.

The verbs in class III are not so homogeneous as are those in classes I and II. They divide into five subgroups on the basis of five different definitions:

In the first *subgroup* we find all the verbs in the language which end in –CCV (*čiłca, itki*); the second *subgroup* consists of all the monosyllabic verbs in the language with the vowel *i* (*i*); the verbs in the third *subgroup* all end in –*ka* or –λa (*maka, mo:λa*); in the fourth *subgroup* we have all the verbs which end in –*o* (*pano*); and the verbs in the fifth *subgroup* are intransitive verbs ending in –*V:wa* and some intransitives ending in –*iya* (*toma:wa, ɸope:liya*). In addition there is a small residue of verbs in class III which may eventually find their definition.

Now, the last and probably the most numerous class remains to be defined, class IV. This is not so easy, and the simplest way of stating class membership here is to say that all the verbs that have not been defined as belonging to either class I, class II, or class III go into class IV.

In general, the verbs of class IV can be characterized as underived and of the shape CVCV.

There is some overlap between class III and class IV. A number of verbs in –*ka* and in –*iya* and some others have two competing perfects,

ki-pa:ka	he washes it
ki-pa:k ⎫	
ki-pa:ka-k ⎬	he washed it
e:wa	he rises
e:w ⎫	
e:wa-k ⎬	he rose
toto:niya	it gets warm
toto:niy [toto:niš] ⎫	
toto:niya-k ⎬	it got warm

2. *Plural.* The forms for the perfect which I have discussed so far have had a singular subject. With a plural subject all verbs — irrespective of class membership — end in *ke?*.

I	ki–kʷa	he eats it
	ki–kʷa–?	he ate it
	ki–kʷa–?–ke?	they ate it

II	ki-miktia	he kills him
	ki-mikti-ʔ	he killed him
	ki-mikti-ʔ-keʔ	they killed him
	ki-poloa	he loses it
	ki-polo-ʔ	he lost it
	ki-polo-ʔ-keʔ	they lost it
III	čĭʔča	he spits
	čĭʔča-k	he spat
	čĭʔča-keʔ	they spat
	k-itki	he carries it
	k-itki-k	he carried it
	k-itki-keʔ	they carried it
	k-i	he drinks it
	k-i-k	he drank it
	k-i-keʔ	they drank it
	ki-maka	he gives it to him
	ki-maka-k	he gave it to him
	ki-maka-keʔ	they gave it to him
	λa-mo:λa	he throws something
	λa-mo:λa-k	he threw something
	λa-mo:λa-keʔ	they threw something
	pano	he crosses
	pano-k	he crossed
	pano-keʔ	they crossed
	toma:wa	he becomes fat
	toma:wa-k	he became fat
	toma:wa-keʔ	they became fat
	¢ope:liya	it becomes sweet
	¢ope:liya-k	it became sweet
	¢ope:liya-keʔ	they became sweet
IV	ki:sa	he goes out
	ki:s	he went out
	ki:s-keʔ	they went out
	miki	he dies
	mik	he died
	mik-keʔ	they died

Although all verbs end in *ke?* in the perfect with plural subject, the class membership is not completely lost. The suffix *ke?* is simply added to the form with a singular subject for verbs of classes I, II, and IV, but with verbs of class III the suffix *ke?* is substituted for the singular suffix *k*.

One might want to interpret this as a simplification of double or geminate *k*, thus, for example **či̊ča-k-ke? → či̊ča-ke?*. However, the perfect with plural subject of the verb *miki* 'to die' shows that such geminate *k*'s are not simplified, *mik-ke?*.

The same suffix *ke?* is used to express plural of subject with verb forms in the future, and with a number of other forms,

ki:sa-s	he will go out
ki:sa-s-ke?	they will go out
ča:n-e?	inhabitant
ča:n-e?-ke?	inhabitants

3. Participial –ki and suggestive observations. By a related set of suffixes, singular *ki* and plural *ke?*, are formed a kind of participial or nominal forms. The suffixes are added either to the perfect or to the future forms of verbs,

teo:-piy-ki [teo:piški]	priest
teo:-piy-ke? [teo:piške?]	priests
λa-maka-s-ki	priest
λa-maka-s-ke?	priests

The suffix *ki* is also found with some simple verbal forms, both perfect and future, in the oldest known texts. In his Arte, Carochi mentions these forms as being less used than those without *ki*, "A las personas del singular deste preterito perfecto se puede añadir *qui*, y dezir: *onitlapōuhqui;* pero lo mas ordinario es dexarlo." and "Al singular se puede posponer *qui*, como *nitlapōhuazqui;* pero mas usado es el dexarlo." (Carochi 1645.424).

I have now outlined the information available for Classical Nahuatl about the formation of the perfect. A number of observations can be made about this formation: 1) to the plural suffix *ke?*, corresponds a singular suffix *ki*; the suffix *k* characteristic of class III may be a shorter form of that *ki*; 2) there is a kind of complementarity between the verbs of class IV and at least those of subgroup 1 (those in –CCV) of class III: the final vowel drops in verbs of class IV; in the verbs of subgroup 1 of class III the final vowel cannot drop since final consonant clusters are in disagreement with the rules of syllable structure in Classical Nahuatl; and finally 3) supposing that the verbs of class II end not in underlying *ia* or *oa*, but in underlying *i?a* or *o?a*, in which the *?* drops intervocalically, then they form

the perfect according to the same rules as do verbs of class IV: by dropping
the final vowel,

II	*ki–miktiʔa	he kills him
	ki–miktiʔ	he killed him
	ki–miktiʔ–keʔ	they killed him
IV	kiːsa	he goes out
	kiːs	he went out
	kiːs–keʔ	they went out

or else if the underlying long *a* of the verbs in class I is interpreted as *aa*, a
parallelism in the formation of the perfect between that class and class II
suggests itself: in both cases final *a* is replaced by ʔ.

I	ki–kʷa–a	he eats it
	ki–kʷa–ʔ	he ate it
	ki–kʷa–ʔ–keʔ	they ate it
II	ki–mikti–a	he kills him
	ki–mikti–ʔ	he killed him
	ki–mikti–ʔ–keʔ	they killed him
	ki–polo–a	he loses it
	ki–polo–ʔ	he lost it
	ki–poloʔ–keʔ	they lost it

I find that these observations are suggestive and give basis for hypotheses
about the history of the perfect formation in Classical Nahuatl. These hypo-
theses can be supported and supplemented by evidence from the variety of
perfect formations found in the many different dialects of Nahuatl spoken
today.

However, instead of little by little piecing the picture together with bits
of evidence from many different dialects, I shall now present the situation
which the systems found in the various dialects, including Classical Nahuatl,
give reason to posit for Proto–Aztecan.

In support of this I shall afterwards show how the Proto–Aztecan
situation developed differently in the many dialects.

B. Perfect formation in Proto–Aztecan

1. Singular. In Proto–Aztecan there was only one way of forming the per-
fect. It was formed from all verbs by suffixing *kaː* to the stem. In
general the verb stem was identical with the form of the present tense. In
Proto–Aztecan we would thus have, for example,

*ki:sa	he goes out
*ki:sa-ka:	he went out
*ki-piya	he guards it
*ki-piya-ka:	he guarded it
*čihča	he spits
*čihča-ka:	he spat

Vestiges of this *ka: are found in the Classical Nahuatl participial suffix ki, teo:piy-ki [teo:piski] 'priest', and in the suffix for 'perfect' used with verbs of class III, k, čiřca-k 'he spat'.

Whenever the Classical Nahuatl suffix ki occurs in word medial position, it has the shape ka:. Examples are,

no-λařtoř-ka:-w	my lord
no-teo:piy-ka:-¢in [noteo:piska:¢in]	my honored priest
ni-k-iřmat-ka:-či:wa	I do it with prudence
ni-k-kʷala:n-ka:-itta	I see it in anger
teo:-piy-ka:-ti [teo:piska:ti]	he becomes a priest

The identification of final ki with medial ka: in Classical Nahuatl is supported by a rule which raised final *a to e or i in Proto-Aztecan. This a-raising rule can be recognized in a number of places. The suffix indicating 'nonpossession', λi/λ, the absolute, and the one indicating 'possession', wi/w, both had an original final a,

*okič-λa → okič-λi	'man'
*no-okič-wa → no-okič-wi	'my man'

Thanks to Whorf's elegant demonstration of The Origin of Aztec tl (Whorf 1937), we know that at some time in the past λi must have ended in a. Whorf showed that λ is a development of *t in the environment preceding a, thus *t → λ/___a. So, at the time when this rule was productive, the vowel of the absolute suffix must still have been a in order to condition the change from *t to λ, thus:

$$*okič-ta → *okič-λa → okič-λi \qquad \text{'man'}$$

'Possession' is indicated with some nouns by a suffix wi/w. With most nouns, however, it is expressed by pronominal prefixes alone,

no-okič-wi	my husband
no-siwa:-w	my wife
no-totol	my hen

When the possessed object is plural, then 'possession' and 'plural' are jointly expressed by a suffix wa:n,

no–okič–wa:n	my husbands
no–siwa:–wa:n	my wives
no–totol–wa:n	my hens

which can be segmented into *wa:* 'possession' and *n* 'plural'.

I consider the shape **wa:* of the suffix for 'possession' somewhat less certain than the shape **ka:* of the suffix for 'perfect' and the shape λ*a* for 'non-possession'. In the few forms containing the suffix for 'possession' in word medial position which Carochi quotes, the suffix has a glottal stop,

no–okič–waʔ–ȼin	'my honored husband'
no–okičti–waʔ–ȼin	'my honored older brother'
no–wes–waʔ–ȼin	'my honored sister-in-law'

My argument for saying that the *n* of *wa:n* indicates 'plural' is that *n* or *m* is in Nahuatl the most common element for 'plural'. With nouns, 'plural' is expressed by one of two suffixes, *meʔ* and *tin*, and in the pronominal prefixes we also find *m* for 'plural'; *i:* 'his' vs. *i:m* 'their' and *ki* 'him' vs. *kim* 'them'. The identification of these variants of a plural marker was first suggested by Karen Dakin in 1973. In agreement with a rule common to all Nahuatl dialects, the variation between *m* and *n* is conditioned by position: word finally we have only *n* varying with nasalization of the preceding vowel.

The following development for the suffix for 'possession' is suggested:

*no–okič–wa(:–ʔ) →	no–okič–wi	
*no–siwa:–wa(:–ʔ) →	*no–siwa:–wi →	no–siwa:–w
*no–totol–wa(:–ʔ) →	*no–totol–wi →	no–totol

So, since several cases of Nahuatl *i* can be shown to have come from Proto-Aztecan **a*, and since Classical Nahuatl participial *ki* has a non-final variant *ka:*, then I posit **ka:* for 'perfect' rather than **ki*, assuming that **ka:* has become *ki* in word final position,

$$*teo–piy–ka: → teo:piy–ki [teo:piski]$$

The rule which raises final *a* to *i* is not productive at the time of Classical Nahuatl, and a great many cases of final *a* have not been affected by it. One may speculate that the very many final *a*'s which have "survived" in the verbs, *ki:sa* 'he goes out', *ki–no:ȼa* 'he calls him', etc., were spared because they mostly occur in non-final position, that is, protected by some suffix,

ki:sa–s	he will go out
ki:sa–ya	he went out
ki:sa–ʔ	they go out
ki:sa–ka	he had gone out
*ki:sa–ka:	he went out

Thus due to analogy with these forms and possibly also in order to preserve
the distinction between –i 'intransitive' versus –a 'transitive', the a is re-
tained in the present tense in final position.

But the singular suffixes λi and wi are always final and unprotected,
and although *ka: is at times followed by a suffix indicating 'plural', it is
probably more frequent in the singular and thereby in final position.

In this connection the most conspicuous final a is the one occurring in
the suffix of the so-called pluperfect tense, ka, ki:sa-ka 'he had gone out'.
In Classical Nahuatl there is no way of determining whether it has a long
or a short vowel, so it may in fact be identical with the suffix posited for
'perfect' in Proto–Aztecan, and the two are undoubtedly related.

a. Origin of pluperfect –ka. I wish to suggest that the origin of this suffix
ka, which is found in Classical Nahuatl and in a number of other dialects,
is Proto–Aztecan *ka: expanded with (y)a, *ka:-(y)a. *ka: is the suffix
for 'perfect', and *(y)a is known from Classical Nahuatl as ye 'already' and
from a?-ya-mo: 'not yet'. A number of arguments can be adduced to ex-
plain why the final a has not undergone raising to e or i: the suffix may
have been accented, *ká:-(y)a; or the a of *(y)a did undergo raising, but
protected the a: of *ka: from it and was later absorbed by *ka:.

In Classical Nahuatl ye 'already' always precedes the verb. If the origin
of ka 'pluperfect' is *ka:-(y)a, then we must assume that ya followed the
verb when this composite suffix was formed.

Evidence for this and for the hypothesis about the origin of ka can be
found in a number of modern dialects.

In three dialect areas, La Huasteca, Sierra de Puebla (cf Key 1960.145)
and Isthmus, *ya follows the verb unless a negation is included in the con-
struction. It happens to be characteristic of *ya in precisely those dialects
that the original a is retained, as it is in connection with negation in all
dialects. In the dialects where it precedes the verb the vowel is generally
raised to e or i,

La Huasteca	λa-k^wah·ki-ya	he has already eaten
S. de Puebla	·ki-k^wah ya	he has already eaten it
Isthmus	·koči ya	he already sleeps
	ko·čikeh a	they already sleep
Zoquitlán	J. yi we:weh	J. is already old
N. Puebla	yi λa-k^wa?-tok	he is already eating
Central Gro	ye koči	he already sleeps
Pochutec	< emo·c >	he had died (Boas 1917.13)

Boas thought that the e in <emo c> was cognate with Classical Nahuatl o:
' "past" ', but since it is his only case of an e – o correspondence, and since

Pochutec generally has no *y* before *e*, neither in the cases where some well defined dialect groups have developed a prothetic *y* (cf page 93) nor in the word for 'three' in which most dialects have initial *y* before *e*:

Pochutec	Isthmus	Central Gro	
＜ezt＞	esti	yesλi	blood
＜eti'＞	eti:k	yeti:k	heavy
＜eyo'm＞	yei	ye:yi	three

it seems reasonable to assume that it is cognate with Classical Nahuatl *ye* 'already'. This agrees with Campbell and Langacker's observation that Proto–Aztecan short *a* corresponds to Pochutec *e* (Campbell and Langacker 1978.94). Pochutec ＜emo'c＞ thus corresponds to Classical Nahuatl *ye mik* 'he already died'. Other examples of this *e* 'already' in Pochutec are:

<div align="center">

Classical Nahuatl

</div>

p 15	＜ecmoctiqui't＞	ye ki–miktiʔ–keʔ	they (already) killed him
p 18	＜encotuque'c＞	ye ni–k–to:ka–k	I (already) sowed it
p 25	＜etiote'c＞	ye teo:λa–k	it is (already) late

Actually, a cognate with Classical Nahuatl *o:* ' "past" ' is also present in Boas' Pochutec materials. On page 23 he gives the perfect forms of the verb 'to go':

＜unya'c＞	I went
＜tia'c＞	you went
＜uya'c＞	he went

in which the initial *u* in the 1. and 3. persons is no doubt cognate with Classical Nahuatl *o:*. This is also in agreement with the correspondences established by Campbell and Langacker, 1978.94.

In many modern dialects *ya/ye* has merged with *o:* to form *yo(:)*,

N. Puebla	yo koč	he has already gone to sleep
Central Gro	yo n–ehko–k	I have already arrived
Central Gro	yoksik ＜ ye o iksik	it is already ripe

<div align="center">

(cf. Cl. N. ik^w sik 'ripe').

</div>

In Sierra de Puebla and in the Isthmus area *ya* is an enclitic with no influence on the stress assigned to the word which it follows (cf Law 1958.123), but in La Huasteca it can be considered a suffix since it influences stress assignment,

'λa–k^w a:s	he is going to eat
λa–'k^w a:s–*a*	he is already going to eat

In that dialect it has three variants, *ya* following vowels and *h*, *ka* following *k*, and *a* after other consonants,

mo–λaloh–'ki–*ya*	he already ran
mo–toma:h–ti–'kah–*ya*	he is already getting fat
λa–k^wah–'keh–*ya*	they have already eaten
ya:l'wa–*ya*	yesterday
wi:p'λa–*ya*	the day before yesterday
λa–'k^wah–tok	he has eaten
λa–k^wah–'tok–*ka* [λak^wah'tohkaʔ]	he has already eaten
te'kiti–k	he has worked
teki'ti–k–*ka* [teki'tihkaʔ]	he has already worked
λa–'k^wa:s–*a*	he is already going to eat
ni–'yow–*a*	I am going now

The pluperfect verb form with the *ka* suffix is found in many dialects, but not in all.

S. de Puebla	čok–ka	he had cried (Robinson 1970.52)
Isthmus	koč–ka	he slept (and is awake) (Law 1958.117)

It does not exist in La Huasteca (cf Croft 1953b.57).

My suggestion is that at the time when the composite "suffix" **ka:–(y)a* was being formed, *ya* as a rule followed the verb. The negation preceded the verb and since *ya* was attracted to the negation, it would precede the verb in negative constructions.

Classical Nahuatl	a–*ya*–mo λak^wa	⎫	
Sierra de Puebla	a–*ya*–mo tak^wa	⎬	he does not eat yet
Tetelcingo	a–*ye*–mo λak^wa	⎪	
La Huasteca	a–*ya* λak^wa	⎭	
Isthmus	aʔ–*ya* koči	⎫	
Central Gro	še (< koš–*ye*) koči	⎬	he does not sleep yet

In most dialects (Sierra de Puebla, Isthmus, Classical N., Central Gro, and others) *ka* and *ya* fused and formed one simple suffix. In some of these dialects *ya* was in other connections moved up before the verb, probably under the influence of the negative constructions (Classical N., Central Gro, etc.), but in Sierra de Puebla and Isthmus no further change took place.

In the archaic language used in the (Classical) Nahuatl hymns *a/ya* has not yet moved all the way to the front of the verb phrase. In these texts *ya* always follows *o:* 'perfect', and it often appears after the person prefixes of the verbs (page references are here to Paso y Troncoso's facsimile edition of Sahagun's Primeros Memoriales, vol 6):

p 51	oyacueponca	it has blossomed
p 50	nicyavica	I take it now
p 50	nechyapinavia	he already embarrasses me

Note also "miccayetoca.nino. fingir que esta muerto" (Molina 1571a.II.55v).

In La Huasteca *ya* changed status from an enclitic to a suffix, but it did not — so far as I know — become more closely connected with the 'perfect' than with other verb forms or words.

	'pluperf.'	Verb ya	Neg ya Verb
Proto-Aztecan	*-ka: ya	*Verb ya	*Neg-ya Verb
La Huasteca	(-'ki-ya)	Verb-ya	Neg-ya Verb
S. de P./Isthmus	-ka	Verb ya	Neg-ya Verb
Central dialects	-ka	ye Verb	Neg-ya Verb

However, it is suggestive that the suffix for 'imperfect' is –'*ya:ya* in several dialects,

North Gro	la-k^{w}a-'ya:ya	he ate
La Huasteca	λa-k^{w}a-'ya:ya	he ate
Jalisco	<ni-tla-zoltla-iaia>	I loved (Guerra 1692.20)

b. Brief note on imperfect and conditional. But one may also want to relate the simple suffix for 'imperfect' *ya* with the element *a/ya* 'already', and the form often called 'conditional' has a suffix *skia* which could be segmented into *s* 'future', *ki* < *ka:*, and *a/-ya* 'already'. We would thus have a form in *a/ya* corresponding to every simple form,

'present'	'imperfect'
ki:sa	ki:sa-ya

'perfect'	'pluperfect'
*ki:sa-ka: > ki:s	*ki:sa-ka:-ya > ki:sa-ka

'future'	'conditional'
*ki:sa-s-ka: > ki:sa-s-ki	ki:sa-s-ki(y)a

It is obvious, however, that this is not a system which could have existed at some one time in the past. If *ki:saskia* is made up of a future form in *ki* plus *a/ya*, then it must have been formed recently, at a time when **ka*: had already become *ki*, maybe at the stage when the *ya:ya* suffix for 'imperfect' was adopted in Guadalajara and La Huasteca. On the other hand, the 'pluperfect' was formed before **ka*: had become *ki*.

These are all premature suggestions which must be mentioned, however, in connection with the derivation of the suffix *ka* for 'pluperfect' from *-*ka:-(y)a*.

c. Pipil forms in –(y)a. In his book Mythen in der Muttersprache der Pipil
von Izalco in El Salvador, 1935, Schultze Jena introduces a complete set of
what he calls acute verb forms corresponding to the various tenses (p
250-51). In order to form the "acute" tenses, the simple tenses are ex-
panded with a suffix of the shape *a, ia,* or *ya* (the forms are all quoted in
Schultze Jena's orthography):

simple	*acute*	
níau	niáu–*a*	I go
nimíki	nimikí–*a*	I die
nikmáti	nikmatí–*a*	I know it
čikáua	čikauá–*ya*	it ripens
níkua	nikuá–*ya*	I eat it
míkik	mikík–*a*	he died
yaχki	yaχkí–*a*	he went
niktepéuak	niktepeuaχk–*ía*	I gathered it
niknútsas	niknutsá–*ya*–s	I shall call him

The relationship between the simple and the acute forms is phonologically
not so simple as the quoted examples may lead one to believe, but an
accurate account of this relationship is here not crucial.

It should be noted, however, that from the point of view of stress as-
signment, the *a/ia/ya* appears to be treated as a suffix; it causes a shift in
stress.

These forms resemble the forms found in La Huasteca, and they also
agree with the idea that the suffix means something like 'already' and
'now',

má šičúgal tiauít*a* (akut)	weine nicht! wir sind doch im
tigištíat, . . . niáu*a* (akut)	Begriff, sie zu befreien, . . .
nigištía	ich mache mich ja auf, sie zu
	befreien (p 250)
kéman tačíški ne túnal,	als die Sonne sich entzündete,
nemituyáy*a* (akut)	gab es nun auch schon
taχtagámet	Menschen (p 251)
témet tikmátit, ga táχa	wir wissen, dass Du ja doch
timiktúk*a* (akut)	gestorben bist (p 252).

According to Schultze Jena, Pipil does not have a 'pluperfect' in *ka*.

2. Plural. In all the various Nahuatl dialects plural of subject is expressed by
a suffix. That was true in Proto-Aztecan as well; and the perfect with
plural subject was formed in the same way for all verbs.

Corresponding to Classical Nahuatl –*keʔ*, Pipil has –*ket*, and there is a considerable amount of evidence to show that some glottal stops in Classical Nahuatl come from Proto-Aztecan *t*. There are a few cases of alternation in Classical Nahuatl,

kaʔ	he is
ka*t*–eʔ	they are
we:weʔ	old man
we:we*t*–keʔ	old men
ki–maʔ	he knew it
ki–ma*t*i	he knows it

and they are supported by the correspondence with Pipil *t*. In most modern dialects, *h* corresponds to Classical Nahuatl ʔ.

In Pipil 'plural' of subject is expressed by *t* in 'present' and 'imperfect', and in Classical Nahuatl we have ʔ in the same forms,

Classical Nahuatl	Pipil	
ki:sa	ki:sa	he goes out
ki:sa–ʔ	ki:sa–t	they go out
ki:sa–ya		he went out
ki:sa–ya–ʔ		they went out
	ki:sa–tuya	he was going out
	ki:sa–tuya–t	they were going out

If *t* is the regular marker for 'plural' of subject, then it is natural to analyze *keʔ*/*ket* as Proto-Aztecan *ka:-t*. The change of vocalism, from *a:* to *e* in *keʔ*/*ket* is shared by an agentive suffix –*ke(:)*λ found in several modern dialects which comes from *-ka:-ta*. Apparently we here need additional environments for the *a*-raising rule.

3. Perfect forms of class II verbs. I have mentioned that the verb stem in Proto-Aztecan was generally identical with the form of the present tense (page 52). I assume this to have been true also for verbs of class II, those in *ia* and *oa*, because I know of no valid arguments for positing a different stem for those verbs.

The perfect forms of class II verbs are undoubtedly the most difficult ones to account for. But since verbs of class II are the subject of chapter III, I shall here present only part of the necessary information and arguments.

I reconstruct the following perfect forms,

*miktiha–ka:(-t)	killed
*polōwa–ka:(-t)	lost

Already in Proto-Aztecan times these forms changed. The many dialects essentially agree on the perfect forms of class II verbs, so it is probable that they found their almost final form in Proto-Aztecan.

The following two rules can account for the changes here assumed to be common to all the dialects:

a is dropped in two environments: a) between h and k, and b) between $\check{V}w$ and k,

$$1) \quad *a \rightarrow \emptyset / \begin{Bmatrix} h \\ \check{V}w \end{Bmatrix} \underline{\quad} k$$

And a second rule changes w into h in the position before k,

$$2) \quad *w \rightarrow h / \underline{\quad} k$$

	*miktiha-ka:(-t)	*polŏwa-ka:(-t)
rule 1	↓	↓
	miktih-ka:(-t)	*polŏw-ka:(-t)
rule 2		↓
		polŏh-ka:(-t)

Arguments in favor of positing precisely these two rules to account for the suggested change are that analogous rules are or have been operative in Nahuatl at various times:

Vowel-loss rules similar to the present *rule 1* have ravaged many parts of Nahuatl morphology through the ages, cf Campbell and Langacker 1978. Our rule 1 may in fact be simultaneous with a rule that dropped the stem final vowel in compounds constructed with the ligature -ti-, cf pages 83–88.

Rule 2 is generally operative in a number of modern dialects.

The formation of the perfect for the verb 'go' appears to be related to that of class I and class II verbs,

	*yawa-ka:(-t)
rule 1	↓
	*yaw-ka:(-t)
rule 2	↓
	yah-ka:(-t)

It is not certain that the first a in *yawa-ka:(-t) was short, and for rule 1 to apply to the second vowel the first vowel must be short. However, if in fact the first a was short, an earlier rule to be discussed in chapter III would have changed it to $\ddot{o}$. Furthermore, it is by no means certain that the final vowel in this verb was a; it is i in all attested forms. So the perfect of the verb 'go' is not conclusively accounted for by the suggested rules.

Campbell and Langacker (1978) have suggested that the verb $k^w a$ 'eat' originally had an *h; the present of that verb is reconstructed *$k^w aha$. They further assume that intervocalic *h is lost, and we get present $k^w a$:. The perfect form can be reconstructed as *$k^w aha-ka:(-t)$, and my rule 1

will apply to this form to give $*k^wah\text{-}ka:$. Probably all verbs of class I should be analyzed in this way (cf page 119).

a. Classical Nahuatl ʔ   I have mentioned that most dialects have *h* corresponding to Classical Nahuatl ʔ, and it is a question of which was the original. Was *h* changed to ʔ in Classical Nahuatl and in a few other dialects, or was ʔ changed to *h* in most dialects? The arguments that can be brought to bear are based on statistics and phonetic plausibility. Statistics is not too meaningful in this connection, and phonetic plausibility is hard to discuss when only some of the possible sources for ʔ/*h* are known. Concerning the change at hand, it seems more likely that *w* should become *h* rather than ʔ, and without any strong conviction I shall continue to view the origin and development of Nahuatl ʔ/*h* in the following way,

	(__#)	__k	
Proto-Aztecan	*t	*w ↓ *h	*h (?)
Pipil	t	h	h
Pochutec	t	Ø	Ø
Cl. Nahuatl	ʔ	ʔ	ʔ
other Nah. dial.s	h	h	h

4. Proto–Aztecan forms. At the time when Proto–Aztecan began to split into dialects, verbs of the four classes posited for Classical Nahuatl are thus here assumed to have had the following forms,

I. $*k^waha(\text{-}t)$ pres
      $*k^wah\text{-}ka:(\text{-}t)$ perf

      $*mo:\lambda a(\text{-}t)$ pres
      $*mo:\lambda a\text{-}ka:(\text{-}t)$ perf

      *pano(-t) pres
      *pano:-ka:(-t) perf

II.   *miktia(-t) pres
      *miktih-ka:(-t) perf

      *toma:wa(-t) pres
      *toma:wa-ka:(-t) perf

      *poloa(-t) pres
      *poloh-ka:(-t) perf

      *¢ope:liya(-t) pres
      *¢ope:liya-ka:(-t) perf

III.   *čihča(-t) pres
      *čihča-ka:(-t) perf

IV.   *ki:sa(-t) pres
      *ki:sa-ka:(-t) perf

      *itki(-t) pres
      *itki-ka:(-t) perf

      *no:¢a(-t) pres
      *no:¢a-ka:(-t) perf

      *i(-t) pres
      *i-ka:(-t) perf

      *piya(-t) pres
      *piya-ka:(-t) perf

      *maka(-t) pres
      *maka-ka:(-t) perf

      *ko:wa(-t) pres
      *ko:wa-ka:(-t) perf

C. Development of Proto-Aztecan forms. Central area innovates

In one dialect area, stem final *i* or *a* preceding the suffix *-ka:* was now lost under certain phonological conditions, resulting in, for example, *ki:s-ka:*. (A parallel loss of the stem final vowel had taken place in compounded constructions with the ligature *ti*, *ki:sa-ti-kah > ki:s-ti-ka?* 'he is going out'. However, for reasons summarized on pages 83-88, this development is not included here.)

The vowel *a* was not lost when following *k* or λ, and no vowel was lost after a consonant cluster. We would thus still have *mo:λa-ka:*, *maka-ka:*, and *itki-ka:*.

$$
\begin{Bmatrix} *i \\ *a \end{Bmatrix} \rightarrow \ \emptyset/VC' \_\_\_\_ \ ka{:}(t)
$$

$$C' \ \neq \ k, \lambda$$

Furthermore, the vowel was retained in some intransitive verbs, thus *to:na-ka:* 'it was warm' was unchanged. This exception made for intransitive verbs is possibly in some way connected with the meaning and use of the suffix *-ka:*.

Stem final *o* is found only in some four or five intransitive verbs indicating movement (*pano* 'pass', *temo* 'descend', λe?ko 'ascend', *e?ko* 'arrive', and *a:toko* 'be carried away (by the river)' and in the verbs, traditionally called passives, in *-(l)o*. In all these verbs the stem final *o* is underlyingly long (evidence for this is found in Carochi and in the modern dialects, for example Kaufman 1969b), and that may be the reason why it was not lost. There is evidence which shows that stem final *o* has come from Proto-Aztecan *Vw(V).

It may very well be that *a* was raised to ə or *i* before it was lost, and likewise *a* of the suffix *ka:* may have been raised before any vowel loss occurred, so that we would get

$$*ki{:}sa{-}ka{:}$$
$$\downarrow$$
$$*ki{:}sə{-}kə$$
$$\downarrow$$
$$*ki{:}s{-}kə$$

However, for the time being I wish to present the development as simply as possible and dispense with intricate discussions of relative chronology. I have also tried to avoid involving other parts of the morphology by having the application of the rule be conditioned by the morpheme *ka:* rather than by some phonological environments, thereby foreclosing a discussion of certain verb forms (*ki:sa-ki:w*, *ki:sa-ko*, etc.) similar to the

perfect forms, in which the stem final vowel is not dropped, (for a brief mention of these forms in connection with the perfect forms see pages 83–88).

The rule which led to the loss of stem final *i* or *a* before *-ka:* (be it a simple vowel–loss rule or a set of rules beginning with an *a*–raising rule), not only split off a central dialect area from the rest of Proto–Aztecan, it also divided the verbs in that central area into two groups: namely 1) those with perfect forms in -*VC-ka:* to which the rule had applied, and 2) those with perfect forms in -*CCV-ka:*, -*λa-ka:*, -*ka-ka:*, and some intransitives with perfect forms in -*V-ka:*.

The dialect area in which the rule concerning loss of stem final vowel was operative encompasses the following later dialects: La Huasteca, Valley of Mexico, Morelos, and Central Guerrero. I call these the *Central dialects*. The dialects in which the rule was not operative are: Jalisco, Michoacan, Almomoloa, North Guerrero, Sierra de Puebla, South Guerrero, Isthmus, and Pipil. These dialects did not form one group, the way I believe the Central dialects did. In this connection they only share *not* having the innovative vowel–loss rule. The perfect forms in most of these dialects display a great deal of similarity due, however, to parallel, and not to shared developments. Pochutec is not mentioned among the Peripheral dialects because it had split off earlier.

In the Central dialects, the final vowel of the suffix *ka:* was subsequently raised, but in the plural form only to *e*,

singular	plural
ki:s–ki	ki:s–keh
maka–ki	maka–keh

and according to a general rule operative in the Valley of Mexico and the area to the South of that, singular *ki* was later dropped when following a consonant, and *i* of *ki* was dropped after a vowel. The resulting forms are the ones we know from Classical Nahuatl (leaving out of account the difference between *h* and *ʔ*),

ki:s	ki:s–keh
maka–k	maka–keh

But the La Huasteca area shared only part of this development, *ki* was not dropped when following a consonant, so the comparable forms are there

ki:s–*ki*	ki:s–keh
maka–k	maka–keh

In general, the Peripheral dialects also raised final *a* of *-ka:* to *i* (in the
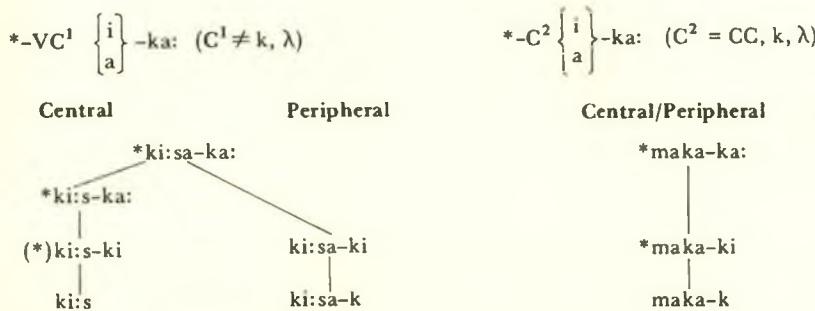
plural form to *e*) and eventually dropped it when this did not give rise to a final consonant cluster:

singular:	*ki:sa–ka: ↓ *ki:sa–ki ↓ *ki–sa–k*	*maka–ka: ↓ *maka–ki ↓ *maka–k*
plural:	*ki:sa–ka:–ı ↓ *ki:sa–ke^ι/h*	*maka–ka:–ı ↓ *maka–ke^ι/h*

Note that in the Peripheral dialects, the perfect form of all verbs (except those of class II and a few others) was developed in the same way. The verbs were not divided into two classes as in the Central area.

Later some of the Peripheral dialects have lost the final *–k*, and some optionally drop the stem final vowel in some forms; these changes make the original split less transparent in the present dialects.

The following diagram shows the general development of the two groups of verbs in the Central area and in the Peripheral dialects:

$$*\text{–VC}^1 \begin{Bmatrix} i \\ a \end{Bmatrix} \text{–ka:} \quad (\text{C}^1 \neq \text{k}, \lambda) \qquad\qquad *\text{–C}^2 \begin{Bmatrix} i \\ a \end{Bmatrix} \text{–ka:} \quad (\text{C}^2 = \text{CC}, \text{k}, \lambda)$$

Central	Peripheral	Central/Peripheral
	*ki:sa–ka:	*maka–ka:
*ki:s–ka:		
(*)ki:s–ki	ki:sa–ki	*maka–ki
ki:s	ki:sa–k	maka–k

Verbs of class II, those in *–ia* and *–oa*, had lost their stem final vowel already in Proto-Aztecan, and in most dialects *ki* < **–ka:* was later lost with these verbs, and **ka:t* gave *keh* as with other verbs: *miktih, miktih-keh* and *poloh, poloh-keh*.

The stem final vowel has been given a great deal of attention by people working with Nahuatl. It has been considered a part of the root or stem, or it has been described as a suffix indicating present tense. Robinson (1970. 35 and 57) discusses this and gives references to earlier discussions. Campbell and Langacker (1978.206) talk about the "transitive present suffix".

In the description of some Central dialects it may be appropriate, but certainly not unproblematic, to analyze the stem final vowel as a marker of present tense. However, it should be clear that this analysis can generally

not be extended to what I have called the Peripheral dialects. It also dis-
agrees with the forms I have posited for Proto–Aztecan in which the stem
final vowel is dropped only for phonological reasons (in verbs of class II).

D. The development in individual dialects

1. Perfect formation in the Central dialects.

a. Classical Nahuatl and Milpa Alta. The perfect forms found in *Classical
Nahuatl* are given pages 46–47. They are typical of the Central dialects.
Classical Nahuatl changes **h* to *ʔ*, therefore we have $*k^w ah\text{-}ka\text{:} > k^w aʔ$,
$*k^w ah\text{-}ka\text{:-}t > k^w aʔ\text{-}keʔ$.

It is characteristic of Classical Nahuatl that inchoative verbs in *-wa*
systematically retain the stem final vowel, in contrast with the correspond-
ing causative verbs which lose it (Carochi 1645.431):

toma:wa	toma:wa-k	become fat
toma:wa	toma:w	make fat

Inchoative verbs in *-ya* often have two variant perfect forms, one in which
the stem final vowel is lost, and one in which it is retained,

¢ope:li-ya	¢ope:li-ya-k	become sweet
	¢ope:liy [¢ope:lis̃]	

It seems that the feature of intransitivity has here somehow kept the
vowel–loss rule from applying. A better understanding of the use and
meaning of **-ka:* is necessary in order to explain this blocking of the
vowel–loss rule.

Whorf says that in Milpa Alta, verbs of class II have *-k* in the perfect
form, *λa:li-k*, *čolo-k*, from *λa:lia* and *čoloa* (Whorf 1946.385). It seems
however that those forms are not the only possible variants. In a tran-
scribed text Whorf twice gives the form *okɨ'hto* 'he said it' instead of
okɨhtok to be expected from his description. (Whorf 1930.7, 19). In a
fairly long text, Boas and Arreola (1920) have no cases of class II verbs
with a suffix *-k* for perfect. On the other hand Gonzalez C. (1920) has
forms both with and without the suffix *k*. On one page he has *mitalwi-k*
'he said' three times and *mitalwi* 'he said' twice. I suspect it is a matter
of phonetic variation in what corresponds to Classical Nahuatl glottal
stop.

b. North Puebla. In Cuacuila the perfect is formed in exactly the same
way as in Classical Nahuatl with one exception. Inchoatives which in Clas-
sical Nahuatl end in *-wa*, here end in *-wi* and their perfect forms are
identical with those of the corresponding causatives,

toma:wi	toma:w	become fat
toma:wa	toma:w	make fat

But inchoatives in –*ya* have two possible perfect forms just as in Classical Nahuatl,

i:¢ti–ya	become cold
i:¢ti–y [i:¢tis̃] i:¢ti–ya–k	became cold

c. Central Guerrero. In Central Guerrero the perfect is formed in just about the same way in all dialects, and more or less as in Classical Nahuatl.

Zitlala, Acatlan, Xalitla, and Copalillo agree in having inchoatives in –*wi* corresponding to Classical Nahuatl inchoatives in –*wa*, and the perfect formed from these is identical with the perfect formed from the corresponding causatives in –*wa*

toma:wi	toma:w	become fat
toma:wa	toma:w	make fat

The same four villages also agree concerning inchoatives in –*ya*. The stem final vowel is consistently retained in the perfect form,

we:(y)i–ya	become big
we:(y)i–ya–k	became big

d. Xalatzala. In the village, Xalatzala, near Tlapa, Guerrero, *ki* has been retained after underived intransitive verbs of the shape CVCV in the third person singular,

ki:sa	ki:s–ki	go out
koči	koč–ki	sleep
ne:si	ne:s–ki	appear
nimi	nim–ki [niŋki]	live
te:mi	te:m–ki [te:ŋki]	become full
we¢i	we¢–ki	fall
yawi	yah–ki	go
	kah(–ki)	be

In the other persons *ki* is not retained, and we get, for example, *ni–we¢* 'I fell'. The plurals are as expected, *ti–we¢–keh* 'we fell' and *we¢–keh* 'they fell'.

In this dialect the preposed *o:*, which indicates something like 'past' and which is common in all the other Central dialects discussed so far, is not used, and it is clearly in order to avoid monosyllables that *ki* is here retained. It also remains in one future form *ya:s-ki* 'he will go', again a monosyllable would result if *ki* were lost.

I know of only few exceptions to this rule: *λami* 'it is finished', *λamik* 'it was finished', but *λam-keh* [λaŋkeh] 'they were finished', and the perfect to *miki* 'die' is *mik*. In this dialect *kk* is realized as *k*, so a perfect with *ki*, *mikki*, would be identical with the present form [miki], and that is probably undesirable.

I know of one transitive verb in which the *ki* is not lost in the perfect form, *ni-k-a:na* 'I catch it', *ni-k-a:n-ki* 'I caught it'.

Inchoatives in *-wi* corresponding to causatives in *-wa* pattern as in the other Central dialects in Guerrero,

toma:wi	toma:w	become fat
toma:wa	toma:w	make fat

and inchoatives in *-ya* do not lose their stem final vowel,

totoni-ya	become warm
totoni-ya-k	became warm

Otherwise, the dialect spoken in Xalatzala clearly belongs to the Central dialect area in regard to perfect formation. But it is an important dialect since the cases of retained *ki* show that the complete loss of *ki* as opposed to *-k* went by way of loss of stem final vowel,

$$*\text{-VCV-ki} > \text{-VC-ki} > \text{-VC}$$

and not

$$*\text{-VCV-ki} > *\text{-VCV-k} \quad (> \text{-VCk}) > \text{-VC}$$

e. La Huasteca. In La Huasteca the truncation of the perfect form has not gone as far as in the rest of the Central area. *-ki* is retained after a consonant; even in class II verbs it is retained optionally,

ki:sa	ki:s-ki ki:s-keh	go out
miktia	miktih(-ki) miktih-keh	kill
poloa	poloh(-ki) poloh-keh	lose

In at least one village in that dialect area, Las Balsas, situated in the

Northern tip of Puebla, the perfect form of class II verbs has still another variant, in *-k*, *mikti-k* and *polo-k*. In that dialect, *k* is realized as [h] before *k*, thus *mikki* is realized [mihki]. I assume that the apparent suffix *k* in *miktik* and *polok* represents a reinterpretation of the final *h* as *k* since it often appears before *k*, in *miktih-ki* and *miktih-keh*. This re-interpretation is no doubt also supported by the fact that *k* is the regular suffix indicating perfect with a whole class of verbs, *maka-k*, etc. In Las Balsas there are thus three variants of the singular perfect of class II verbs,

miktih-ki	poloh-ki
miktih	poloh
miktik	polok

The vowel–loss rule has divided the rest of the verbs into approximately the same two classes as in the other Central dialects. The final stem vowel was not lost, however, in the following intransitive verbs,

či:či	či:či:k	suck
i:sλakati	i:sλakati-k	lie
tekiti	tekiti-k	work
te:mi	te:mi-k	become full

I believe that the final *i* of *či:či* was not lost in any dialect, possibly be-cause it is long. The final *i* of *tekiti* was retained in Classical Nahuatl, but lost in Tetelcingo, Mor, and Zitlala, Gro. The retention of the stem final *i* in *i:sλakati* and *te:mi* seems to be specific to the La Huasteca dialect area.

Retention of the stem final vowel of certain classes of intransitive or inchoative verbs is not found in La Huasteca as in a number of other Central dialects.

2. *Perfect formation in the Peripheral dialects*

a. Sierra de Puebla. The dialects spoken in Sierra de Puebla did not lose the stem final vowel at the time when this occurred in the Central area. How-ever, a similar rule which drops the stem final vowel is now operative in that area. It is optional, at least in some of the villages, and it applies to the stem final vowel only in the environment following a single consonant before the plural suffix *-keh*, that is before a full syllable,

ki:sa	he goes out	ki:sa-k	he went out
		ki:s(a)-keh	they went out
čo:ka	he cries	čo:ka-k	he cried
		čo:k(a)-keh	they cried (Robinson 1970.52-53)
-šo:ta	he scratches	-šo:ta-k	he scratched
		-šo:t(a)-keh	they scratched

Three facts show that the vowel loss is here due to another and later rule than the one which applied to the stem final vowel in the Central area:

1) it does not apply to the singular forms, but in the Central area the suffix -*ki* was dropped only after the stem final vowel had been lost (CVCV-ki > CVC-ki > CVC).

2) it applies to vowels which are preceded by *k* and *t* < λ < *t (čo:k-keh and šo:t-keh).

3) I interpret the optionality of the rule in Sierra de Puebla as a sign that it is a productive and recent rule.

The full suffix -*ki* is in Sierra de Puebla retained in two verbs, *yah-ki* 'he went' and *ye:s-ki* 'he will be'.

b. Isthmus. In Mecayapan the situation has been complicated by some late phonetic rules. In word final position *k* is realized as ? which is very difficult to distinguish from a glottal stop that marks the end of utterance. In general the penultimate syllable receives strong stress whereas the final syllable is very weakly stressed, often only whispered. The vowel of the final syllable is articulated a bit more strongly when followed by ? (< k) than when followed by ?, marker of end of utterance. This utterance final marker is followed by a faint echo vowel. Carl Wolgemuth (1969) has given a careful phonetic description of this and other laryngeal features in the Mecayapan dialect. However, the problem should be obvious, *ki:sa* 'he goes out' ends in a glottal stop because it is utterance final, and *ki:sa-k* 'he went out' is realized with a slightly stronger final glottal stop which represents *k*, also the final syllable is articulated a bit more strongly than in *ki:sa* 'he goes out', thus ['ki:sa'] vs ['ki:sa?]. In the following I write only the phonemic glottal stops and not those which mark end of utterance. Naturally the problem of distinguishing the two glottal stops arises only when the words occur in utterance final position.

A rule similar to the one effective in Sierra de Puebla now drops the stem final vowel — optionally in some cases — in the environment before the suffix *keh* and following certain, but not all, consonants, for example,

koči	he sleeps
koči-k [koči?]	he slept
koči-h	they sleep
koč-keh	they slept

Before *keh* the stem final vowel generally drops after the following consonants, *č, k, k^w, w,* and *s,* but not after *ɬ, l, t, m, n,* and *y*. I have no examples with the stem final vowel following *p* or *š.*

Furthermore, through some kind of dissimilation rule *k* becomes *g* when preceding a vowel plus utterance final *k* > [ʔ], for example,

ki-teki   he cuts it

ki-teki-k [kitegiʔ] he cut it

and this final syllable *-giʔ* as well as final *-gaʔ*, *-g^wiʔ*, *-g^waʔ*, *-waʔ*, and *-wiʔ* are optionally reduced to *ʔ*, for example, *ki'tegiʔ* ~ *ki'teʔ*. Note that the accent does not shift, and we thus have the accent on the final syllable.

Both *ʔ* < *k* and the stem final vowel are dropped optionally after *m*, *n*, and *l*.

Verbs of class II form the perfect in *-ih(keh)* and *-oh(keh)* just as expected.

Examples of perfect forms in Mecayapan (Isthmus):

	present, 3. sg.	perf. 3. sg.	perf. 3. pl.
sleep	koči	koči-ʔ	koč(i)-keh
cut	teki	'tegi-ʔ/'teʔ	teki-keh
wash	pa:ka	'pa:ʔ	pa:h-keh
steal	ičteki	ič'teʔ	ičtek-keh
die	miki	'migi-ʔ/'miʔ	miki-keh
close	ȼak^wa	'ȼaʔ	ȼak^wa-keh/ȼak-keh
smell	ihnek^wi	ih'neʔ	ihnek-keh
remain	ka:wi	'ka:wi-ʔ/'ka:ʔ	kah-keh
become angry	k^wesiwi	k^wesiʔ	k^wesiwi-keh
peel	ši:pewa	ši:peʔ	
buy	ko:wa	ko:wa-ʔ	ko:h-keh
grind	ti:si	ti:si-ʔ	ti:s-keh
go out	ki:sa	ki:sa-ʔ	ki:s-keh
call	no:ȼa	no:ȼa-ʔ	no:ȼa-keh
throw	tahkali	tahkal	tahkali-keh
be born	yo:li	yo:li-ʔ	
vomit	miso:ta	miso:ta-ʔ	miso:ta-keh
sew	ihȼo:ma	ihȼō	ihȼo:ma-keh
fly	pata:ni	pata:n(i-ʔ)	pata:ni-keh
become fat	toma:waya	toma:wayʔ	
shell			o:ya-keh
kill	miktia	miktih	miktih-keh
lose	polo:a	poloh	poloh-keh

c. North Guerrero. In North Guerrero, ʔ and the suffix *k* indicating perfect are lost in word final position. We thus have,

ki–k^{w}a	he eats it
u ki–k^{w}a	he ate it
u k^{w}aʔ-ke	they ate it
ki–maka	he gives it to him
u ki–maka	he gave it to him
u ki–makaʔke	they gave it to him
ki–miktia	he kills him
u ki–mikti	he killed him
u ki–miktiʔ–ke	they killed him

(The pronominal prefix *ki* is dropped when unaccented and followed by k^w or *k*.)

A glottal stop is always inserted between a vowel and the suffix *ke*. In *u k^{w}aʔ-ke* and *u ki–miktiʔ-ke* the glottal stop corresponds to ʔ in Classical Nahuatl and to *h* in most modern dialects, but the glottal stop found in *u ki–makaʔke* does not correspond to any segment in other dialects and it is probably inserted to make the form analogous with the other cited types of forms.

Recently the stem final vowel has been lost in the perfect forms of many verbs. In the case of some verbs, both forms with the stem final vowel and forms without it are used,

u ki–pi:ȼa
u ki–pi:ȼ [ukipi:s]   } he blew it

u ki–pi:ȼaʔke
u ki–pi:ȼ–ke [ukipi:ske] } they blew it

In the perfect forms, the stem final vowel is usually not dropped when following *m*, *n*, or *y*,

u kaša:ni	he loosened it
u kaša:niʔke	they loosened it
u me:ya	it poured forth

The arguments for considering the loss of stem final vowel a recent development in North Guerrero, independent of the Central Nahuatl innovation, are: 1) the cases of competing forms, with and without the stem final vowel, and 2) the fact that the stem final vowel is not lost after *n*, *m*, and *y* where the Central dialects show no retention of that vowel.

d. Almomoloa. The dialect spoken in Almomoloa can also be identified as Peripheral on account of its not losing the stem final vowel in the perfect forms. Schumann and García de León (1966) give the following forms,

yokčiwa	he did it (p. 180)
ohmalína	it twisted (p. 182)
	(should probably be: 'he twisted it')
omíki	he died (p. 186)
yolakatíke	they were born (p. 186)

e. South Guerrero. In Quetzalapa, in the Southeastern tip of *Guerrero*, all final consonants are lost, but the stem final vowel is retained in almost all cases. We find the following forms,

u nu:ȼa	he called him
u nu:ȼahki	they called him
u kʷala:ni	he got angry
u kʷala:nihki	they got angry
u ni-kua	I bought it
u ti-kuahki	we bought it
yu ta-kʷa	he ate
yu ta-kʷahki	they ate
u n-taho:ya	I shelled corn
u tahoyahki	they shelled corn
u ki-mihti	he killed it
u ki-mihtihki	they killed it
u k-ihtu	he said it
u k-ihtuhki	they said it

f. Michoacán. In Michoacán, the stem final vowel is never lost in the perfect forms. The suffix *k* has been generalized and is used with all verbs. The examples are from Sischo (n.d.),

ki-kʷa-k	he ate it (p. 103)
ni-k-mikti-k	I killed it (p. 7)
k-ihtu-k	he said it (p. 13)
ki-maka-k	he gave it to him (p. 13)
ahsi-k	he arrived (p. 73)
kisa-k	he left (p. 18)
ki-šitini-k	he destroyed it (p. 20)
miki-k	he died (p. 103)
ki-kah-kawa-k	she left it (p. 111)

The suffix to indicate plural of subject with perfect is *he*, probably a

realization of *kke*. Sischo says that it has another variant, *hke*, but in all his examples there are only two incidents of this and both with the verb *čiwa* 'do', *ki-čih-čiwa-hke* 'they repaired it', (20), and *ki-čiwa-hke* 'they did it' (30). Examples with *-he*:

ti-h-kiš-ti-he	we took it out (p. 104)
ti-k-lali-he	we put it down (p. 104)
k-ihtu-he	they said it (p. 104)
nič-maka-he	they gave it to me (p. 111)
ehsa-he	they awakened (p. 108)
ti-weʒi-he	we fell (p. 115)
ʒikʷini-he	they jumped (p. 11)
ki-kawa-he	they left it (p. 104)

Sischo, n.d. 89, mentions that in verbs the last two syllables often contract into one. Some of his examples are,

š-ič-maka > š-ič-má	give it to me!
miki-k > mík	he died
ni-k-ahoki-k > ni-k-ahóik	I raised it
piʒawa-k > piʒák	narrow
ni-pewa-k > ni-pé(a)-k	I began

These contractions are similar to the ones found in the Isthmus dialects, but they are in no way connected with a systematic loss of the stem final vowel of the verbs. The dialect spoken in Michoacan clearly did not participate in the innovative vowel loss rule of the Central area.

g. Jalisco. The dialects spoken in Jalisco have retained the stem final vowel until recently. Guerra, 1692, says "El preterito perfect, es como el presente solo se diferencia en que al principio antes del pronombre conjugativo se le añade vna *O*, v.g. *Onitlazoltla, — yo amé, ó he amado.* Y en el plural en lugar de *lo* se le añade *que*, v.g. *Otitlazoltlaque, nosotros amamos, ó havemos amado*, y assi se han de conjugar todos los Verbos" (p 20). For our purpose Guerra's example is ill-chosen since all dialects retain the stem final vowel after λ. However, his assertion that the form of the perfect is identical with that of the present is confirmed by examples in his accompanying text,

oticahua	you have left it out (p. 77)
oticaqui	you heard it (p. 78)
otictlaza	you threw it (p. 78)
oticpepena	you found it (p. 80)
otimomauhti	you were afraid (p. 77)

otiquilhui	you said it to him (p. 77)
oticpolo	you lost it (p. 78)

It is not surprising that the perfect forms of *mawtia, ilwia,* and *poloa* end in *i* or *o* since the final *a* of class II verbs was lost already in Proto–Aztecan.

In the Guadalajara dialect area there later appears to have been a general tendency towards losing word final vowels. Examples of the resulting perfect forms are seen below in the second column which contains forms from K. Th. Preuss' texts collected in San Pedro Jícora, Dur. in 1907 (Preuss 1968 and 1971):

kin-mikt*ia* > kin-miktí	he kills them (I. 214)
ya-ki-miktia-*lo* > ya-ki-miktiá-l	they kill him (II. 85)
u-ki-mikti-k*e* > u-ki-miktí-k	they killed it (I. 214)
u-kis*a* > u-kís	he went out (I. 53)
u-ta-kisa-k*e* > u-ta-kisa-k	they got out (I. 320)

In San Andrés Ixtlán (Arreola 1934) both *k* of the suffix and the stem final vowel are retained,

< yomiquic >	he died
< patlanic >	it flew

h. Pipil. Schultze Jena's description of *Pipil* (1935) gives the impression that vowel loss in verb forms has only recently begun to take place, and according to two competing rules. He says (p 239): "In manchen Verben herrscht Freiheit der Wahl, ob die Perfektendung an die Wurzel oder an die Präsensendung angeschlossen wird: *gi-čiúki* und *gičiuak* er tat; *mukáuki* und *mukáuak* er blieb; *gitsutsúnki* und *gitsutsúnak* er berührte; *gimátik* und *gimáχki* er wusste; *tagétski* und *tagétsak* er sprach."

Other verbs have only one possible perfect form, namely either in –CVC–ki or in CVCV–k. The factors conditioning the distribution of these two possibilities are not clear. The stem final vowel is not lost in for example <gisa-k> 'he went out', <séui-k> 'it was extinguished', and <míki-k> 'he died'.

As in Michoacan, the verb for 'eat' and class II verbs form the perfect in *k,* in analogy with the many other verbs using the reduced suffix *k,*

< gikuak >	he ate it (p 238)
< mutáluk >	he ran (p 238)

But class II verbs in *ia* have also retained a longer form in -χ*ki* corresponding to Classical Nahuatl perfect in -ʔ and to the participial form in -ʔ-*ki* and to La Huasteca -*h-ki,*

$\left.\begin{array}{l} < \text{gašíti-k} > \\ < \text{gašitíx-ki} > \end{array}\right\}$ he completed it (p 238)

Cl.N. k-aʔši:tiʔ   he made him arrive

The Pipil forms in *ki* are identical with those found in La Huasteca and with those which all the Central dialects have had at an earlier stage. But the number of Pipil variants in *-C-ki* and *-Vk* and the many cases with the stem final vowel retained show that Pipil has gone through a development independent of that common to all the Central dialects.

i. East Puebla. In Zoquitlán the situation is similar to that of Pipil, but in Zoquitlán we are probably dealing with a case of dialect mixture rather than with an isolated and independent development.

The perfect forms of class II verbs present no surprises,

<div align="center">

ni-k-pačoa	I bring it down
o ni-k-pačoh	I brought it down
o mo-λa:lih	he sat down
o mo-λa:lih-keh	they sat down

</div>

Verbs in *-CCV* also form the perfect as expected,

<div align="center">

ni-k-itta	I see it
o ni-k-itta-k	I saw it
o k-itta-keh	they saw it
o n-ehko-k	I arrived here
o n-ahsi-k	I arrived there

</div>

But the perfect form from verbs in *-VCV* represents either 1) the present stage of most of the Central dialects, *-VC#*, 2) the intermediate stage of most of the Central dialects, or 3) the development that has taken place in the Peripheral dialects:

Verbs in *-Vwa* have generally lost all traces of the suffix *ki* in the singular, and they have dropped the stem final vowel,

<div align="center">

ni-mo-ka:wa-s	I am going to stay
o ni-mo-kaw [-kah]	I stayed
o mo-kaw-keh [-kahkeh]	they stayed
o mo-tomaw [-tomah]	he became fat
ki-kowa	he buys it
o ki-kow [-koʷh]	he bought it
o ki-kowkeh [-kohkeh]	they bought it

</div>

A number of the other *-VCV* verbs have two variant perfect forms,

o ki–no:ȼa–k
o ki–no:ȼ–ki } he called him

o mo–kopa–k
o mo–kop–ki [kofki] } he returned

o λao:ya–k
o λao:y–ki [λao:ški] } he shelled corn

o ki–piya–k
o ki–piy–ki [kipiški] } he had it

o koči–k
o koč–ki } he slept

o koči–keh
o koč–keh } they slept

For the following verbs I have only one perfect form, but that does not exclude the possibility that another form exists,

o ni–k–tek–ki	I cut it
o paλa:n–ki [paλa:ŋi]	it flew
o k–ihȼom–ki [kihȼoŋi]	he sewed it
o weȼ–ki	he fell
o ni–k–to:k–ki	I sowed it
o ki–to:k–keh	they sowed it
o ni–k–toka–k	I followed him
o ki–toka–keh	they followed him
o ni–ki:sa–k	I went out
o šo:λa–k	it burnt
o ni–miȼ–maka–k	I gave it to you
o ni–λa–kʷa–k	I ate

E. Summary and problems

It should be obvious that this review of the perfect formation in a number of Central and a number of Peripheral dialects is not in any way exhaustive. It does not include all dialects or even all dialect areas, and for no dialect is the perfect formation described comprehensively. The review is naturally limited by the data available. Its function is to demonstrate and support the two basic ideas in this chapter: 1) that the perfect in Proto-Aztecan was formed with a suffix *-ka:, and 2) that an innovative rule of stem final vowel loss separated off one Central dialect area from the rest of the dialect areas.

*1. The meaning of *-ka:*.* The discussion and presentation of data should
have established beyond doubt that the perfect forms in all the modern
dialects have developed from a Proto-Aztecan form with the suffix *-ka:*.
However, it has not been discussed what the function and meaning of this
Proto-Aztecan form in *-ka:* was, what the Proto-Aztecan tense system
was like, or how the form in *-ka:* fitted into that system.

*a. Nominal and other used of *-ka*.* In all the dialects, excepting Isthmus
and Pipil, various developments of Proto-Aztecan *-ka:* appear in some
nominal forms which are distinct from the simple perfect:

Cl. Nahuatl	m-iʔto:tia	he dances
	m-iʔto:tiʔ	he danced
	m-iʔto:tiʔ-*ki*	dancer
	miki	he dies
	mik	he died
	mik-*ki*	dead person
	mik-*ke*λ	corpse
	λa-po:wa	he divinates
	λa-po:w	he divinated
	λa-po:w-*ki*	divinator
	pala:ni	it rots
	pala:n	it rotted
	pala:n-*ki*	rotten
	siyawi	**he becomes tired**
	siyaw	**he became tired**
	siyaw-*ki*	tired
Zitlala	λa-htoa	he speaks
	λa-htoh	he spoke
	λa-htoh-*ke:*λ	speaker
	λa:wa:ni	he gets drunk
	λa:wa:n	he got drunk
	λa:wa:n-*ki*	drunk
	λapa:ni	it breaks
	λapa:n	it broke
	λapa:n-*ki*	broken
Sierra de Puebla	m-ihto:tia	he dances
	m-ihto:tih	he danced
	m-ihto:tih-*keh*	dancer

	ta-c̆teki	he steals
	ta-c̆teki-k	he stole
	ta-c̆tek-*keh*	robber
La Huasteca	te:-mihtia	he kills someone
	te:-mihtih	he killed someone
	te:-mihtih-*ke:*λ	murderer
	λad̸od̸ona	he plays (music) (Kaufman 1969b.102)
	λad̸od̸on-ki	he played (music)
	λad̸od̸o:n-*ke:*λ	musician
North Guerrero	la-pupu:wa	he heals
	la-pupu:w	he healed
	la-pupu:w-k*i*	
	[lapupu:hwi]	healer

In some dialects, the suffix -*ni* competes with developments of *-ka:* in forming such nominals. That is true for Classical Nahuatl, where the factors conditioning the distribution of -*ki* and -*ni* are not clear; both suffixes occur with both intransitive and transitive verb stems, and they both form both animate and inanimate nominals,

a:m-*ki* [a:ŋki]	
a:mi-*ni*	hunter
poson-*ki*	
poso:ni-*ni*	foaming
m-iʔto:tiʔ-*ki*	
m-iʔto:tia:-*ni*	dancer
λa-ʔd̸om-*ki* [λaʔd̸oŋki]	
λa-ʔd̸oma-*ni*	tailor

However, their use is guided by a difference in meaning which can be illustrated by the following pair of nominals,

| mik-ki | dead person |
| miki-ni | mortal |

-*ni* indicates something about an inherent or lasting feature, whereas -*ki* tends to signify something about a feature acquired through experience, but often the presence of a distinction is questionable.

In Sierra de Puebla and La Huasteca, -*ni* and a form of *-ka:* are in complementary distribution, -*keh* or -*ke:*λ occurring in the singular and -*ni* in the plural,

Sierra de Puebla	m-ihto:tih-*keh*	dancer
	m-ihto:tia:-*ni-h*	dancers
	tatawan-*keh*	drunkard
	tatawani-*ni-h*	drunkards
La Huasteca	te:-miktih-*ke:*λ	murderer (Kaufman 1969b.57)
	te:-miktia:-*ni:-h*	murderers
	mik-*ke:*λ [mihke:λ]	corpse
	miki-*ni-me:h*	corpses

In the dialects where a suffix *-keh* or *-ke:*λ has developed, this usually contrasts with a nominal suffix *-k* used with forms that are either less agentive or more adjectival than those in *-keh* or *-ke:*λ,

Sierra de Puebla	siowi-*k*	tired
	taɟiwi-*k*	lazy
	toma:wa-*k*	fat
La Huasteca	sasa:lik	sticky (Kaufman 1969b.114)
	yaya:wik	black (Kaufman 1969b.1)
	toto:nik	warm (Kaufman 1969b.46)

In Pipil and La Huasteca, developments of Proto-Aztecan *-ka:* are not used in forming nominals which are distinct from the simple perfects. Animate (agentive) nominals are formed with the suffix *-ni*,

Pipil (Schultze Jena 1935.199)	< ne kukuyá-ni >	the sick person
	< kuχ-kukuyá-net >	the sick people
	< ne miki-ni >	the dead person
	< miχ-miki-ni >	the dead people
	< ne tapaχtiá-ni >	the doctor
	< ne taχpiá-ni >	the guardian
Isthmus (García de León 1976)	mihtotia-ni	dancer
	ta-pahtia-ni	healer
	migi-ni	a dead person

The simple perfect is often used both verbally and nominally,

Pipil (Schultze		
Jena 1935)	palani	it rots
	palani-k	⎰ it rotted ⎱ rotten
	tutuni	it becomes warm
	tutuni-k	⎰ it became warm ⎱ warm
	čamawa	it swells
	čamawa-k	⎰ it swelled ⎱ swollen
La Huasteca	tačtegi	he steals
	[tačteʔ]	⎰ he stole ⎱ robber
	[tačteh-keh]	⎰ they stole ⎱ robbers

This is known also in Classical Nahuatl (cf Carochi 1645.454)

toma:wa	he becomes fat
toma:wa-k	⎰ he became fat ⎱ fat
λa-ʔkʷilo-a	he paints, writes
λa-ʔkʷiloʔ	⎰ he painted, wrote ⎱ painter, writer
λa-ʔkʷiloʔ-keʔ	⎰ they painted, wrote ⎱ painters, writers

Thus in a number of dialects, Proto-Aztecan *-ka: appears to have (acquired) two separate functions, a function in the tense system and a nominalizing function, corresponding to separate developments of the suffix. In Pipil and Isthmus such developments have not taken place, and those two dialect areas are thereby divided off from all the rest of the Nahuatl dialect areas.

The nominally used *-ka: establishes another isogloss: in some dialects, the stem final vowel is generally dropped before the suffix -ki/-k, in others it is retained:

	'warm'	'green'	'dry'
Pipil	< tutúnik >	< šušúuik >	< uákik/uáktouk >
Isthmus	toto:niʔ	šušu:wiʔ	
Sierra de P.	toto:nik	šošowik	wa:(y)ik
La Huasteca	toto:nik	šošowik	(wa:ktok)

Cl. Nahuatl	totonki	šošo:wki	wa:kki
North Puebla	totonki	šošo:wki	wa:kki
Teotihuacan	totonki	šošowki	wakki
Tetelcingo	toto:nki	šošo:bik	wakki
Zitlala	toto:nki	šošowki	waki
Tlaxcala	totonki		wakih
South Guerrero	tutunki	šušu:wi	
North Guerrero	tutu:nki		wakki
Almomoloa		šušuwke	wakke
Michoacán	totonki		
Jalisco	totonki		wakki

The shape of these nominal forms divides the dialects into two groups: the Central area and the Western periphery lost the stem final vowel and have *ki,* and the Eastern periphery has stem final vowel plus *k.* La Huasteca, which was classified as Central on the basis of the formation of the perfect, here follows the Eastern periphery.

In the Central area and in the Western periphery the forms differ from the simple perfects: in the Central area the retention of the suffix -*ki* will appear as the main characteristic, and in the Western periphery the loss of stem final vowel *and* the retained *ki* are the defining properties of these forms,

Central		
(Cl. Nahuatl)	koyon	a hole was formed
	koyon-*ki*	a hole
W. Periphery		
(North G.)	kuyu:ni	a hole was formed
	kuyu:n-*ki*	a hole

It has here been assumed that the suffix *ki* found in these nominal forms is the same suffix *-ka:* which has left traces in the perfect forms.

But if that is correct, then it must be explained why the nominal forms have developed differently from the perfect forms. Several explanations suggest themselves. It seems most likely that the stem final vowel in these nominal forms was lost before it was lost in the perfect forms in the Central area, because otherwise we cannot explain why it was not lost in the perfect forms in the Western periphery at the same time. Furthermore, the specific formation could have taken place at a time when the Central dialects and those of the Western periphery were in closer contact. However, we also know that at least the far Eastern periphery (Isthmus and Pipil) did not participate in this specific development, so it was not as early as general Aztecan times.

At present there is no evidence for the possible phonological differences between the nominal form and the perfect form which may have conditioned the different phonological developments. Undoubtedly, these nominal forms are connected with the nominal forms in *-wak* which in the Central area are inconsistent with the general rules for forming the perfect. Somehow the intransitivity of the verbs from which the nominals are formed is an important factor.

Vestiges of Proto-Aztecan *-ka:* are also found in the future forms; Carochi (1645.424) says about the future singular, "Al singular se puede posponer *qui,* como *nitlapŏhuazqui;* pero mas usado es dexarlo." Combined with future the suffix for 'plural' is in Classical Nahuatl *ke7* probably from *-ka:-t, ti-λa-po:wa-s-ke7* 'we will count it'.

The same suffix, *ke7,* indicating 'plural' is used with a number of other forms, 'possessor' in *-e7* or *-wa7,* and with adjectives derived from nouns by a suffix *-yo7* 'full of',

c̆a:n-λi	home
c̆a:n-e7	inhabitant
c̆a:n-e7-ke7	inhabitants
mic̆-in	fish
mic̆-wa7	he who has fish
mic̆-wa7-ke7	those who have fish
soki-λ	mud
soki-yo7	muddy
soki-yo7-ke7	muddy (pl)

These different uses of *-ka:* and possibly some others must be included in a discussion of the function and meaning of Proto-Aztecan *-ka:* and of the Proto-Aztecan tense system; however, such a discussion is way beyond the aim of this chapter, and also unrealistic with the restricted amount and kinds of data available at present.

2. *Compounded forms with the ligature ti.* It was mentioned on page 63 that a loss of the stem final vowel parallel to that in the perfect form has taken place in compounded constructions with the ligature *ti,* *ki:sa-ti-kah* giving Classical Nahuatl *ki:s-ti-ka7* 'he is going out'.

However, this case of vowel loss is not restricted to the Central dialect area, and in several of the Central dialects the two cases of vowel loss do not coincide exactly: in Central Guerrero the stem final vowel is consistently lost in the compounded forms with inchoatives in *-ya,* whereas it is retained in the perfect of the same verbs,

we:(y)iya   it becomes big
we:(y)iya–k   it became big

Zitlala ⎤		
Acatlan ⎬	we:(y)iy–ti–kah [we:(y)ištikah]	⎱
Copalillo ⎦		⎰ it is becoming big
Xalitla	we:iy–t–ok [we:ištok]	

In many of the Peripheral dialects, most stems lose the stem final vowel in the compounded form, whereas they retain it in the perfect, but there is no agreement among these dialects concerning which stems lose the vowel and which retain it,

Sierra de Puebla

Canger 1976e.10	ni–k–toh–*toka*–t–ok	I am following him
11	ni–k–*mati*–t–ok	I am knowing it
Robinson 1970.53	*čok*–t–ok	he is crying
	ki–*čipaw*–t–ok	he is cleaning it
62	ti–on–*pak*–ti–kah	you are well, sir
Canger 1976e.13	ni–*koč*–t–ok	I am sleeping

Isthmus

Law 1958.125	–*koč*–tika	remain sleeping
Canger 1976f.81	ni–*čo:k(a)*–ti–nemi	I go crying
80	ni–k–*maka*–ti–nemi	I go giving it
	ni–k–*mati*–ti–nemi	I go knowing it
	ni–*misu:ta*–ti–nemi	I go vomiting
61	ni–*koč*–t–oʔ	I am sleeping
	ki–*no:ɖ*–t–oʔ	he is calling him
80, 81	ni–*kak*–ti–nemi	I go hearing it
	ni–ta–*pa:k*–ti–nemi	I go washing

North Guerrero

Canger 1976a	ki–*makaʔ*–ti–ka	he is giving it to him
	me:yaʔ–ti–ka	it is pouring
	istayaʔ–ti–ka	he is turning pale
	ki–*tukaʔ*–ti–ka	he is following him
	ki–*pi:ɖ(aʔ)*–ti–ka	he is blowing it
	ki–*mat*–ti–ka [kimastika]	he is knowing it

	ne:s-ti-ka	it is appearing
	pala:n-ti-ka	it is rotting
	ȼaʔ-ti-ka (<*ȼaʔȼi*-a)	he is screaming
	čuʔ-ti-ka (<*ču:ka*)	he is crying
	ki-*tuʔ*-ti-ka (<*tu:ka*)	he is burying it
	ki-*muʔ*-ti-ka (<*mu:λa*)	he is throwing it

Almomoloa

Schumann/		
García de L. 1966.190	mu-*teʔka*-ti-ka	lying
	mu-*keȼa*-ti-ka	standing
180	ni-*či-čiwa*-ti-ka	I am doing it
	tih-*či*-tí-ga ⎫	you are doing it
	tih-*či*-ti-ka ⎭	

Quetzalapa

Canger 1976j.32	ni-*tahoyah*-ti-ka	I am shelling corn
23	*ȼak^wah*-ti-ka	it is closed
41	*taka:wi*-ti-ka	it is being damaged
42	*pusawah*-ti-ka	it is swelling
38	ki-*wi:ka*-ti-kate	they are taking it
4	*k^iyawih*-ti-ka	it is raining
36	*yawih*-ti-ka	he is going
20	*syawih*-ti-ka	he is tired
39	*kulin*-ti-ka	he is swinging it
30	*k^walan*-ti-ka	he is angry
36	*nen*-ti-ka	he is walking
	patan-ti-kate	they are flying
40	*pusu:n*-ti-ka	it is boiling
4	*tapitan*-ti-ka	it is lightening
59	*sa:s*-ti-ka (<*ȼahȼi*)	he is screaming
22	*wes*-t-u (<*weȼi*)	he is lying down

Michoacán

Sischo n.d. 4	*wes*-ti-ka	he is falling
5	ki-*kuh*-ti-ka	he is buying it
20	ki-*čih*-ti-ka-te	they are doing it
5	ki-*piš*-ti-ka	he is holding it
120	t-ič-toh-*toka*-ti-ka	you are chasing me
14	ki-*temuh*-ti-nemi-aya	he had walked searching it
118	ni-k-*pensaruh*-ti-ka	I am thinking about it
73	mo-*laluh*-ti-ka	he is running

119	ti-k-*mik-ti*-ti-nemi	you are killing it
122	mo-*lali-h*-ta-t-aya	he is sitting
14	ti-h-k^w*ah*-ti-ka-te	we are eating it

Jalisco

Guerra 1692.29	< ni-*chiuh*-tica >	I am doing
	< ni-*coch*-tica>	I am sleeping
69	< ni-mo-*cocouh*-tica >	I am ill
Preuss 1925.459	< ki-*tšip*-ti-katkáloyá > < či:wa)	they were doing it
460	< mu-*kes*-tik >	he stood
461	< *tas*-tik > (<λa:sa)	he lay
Arreola 1943.430	< *pozon*-ti-ca >	it is boiling

Colima

Arreola 1943.442	< *comon*-ti-ca >	it thunders

Pipil

Schultze Jena 1935.236	*mik*-túya	he was dying
	gisa-túya	he was awake

Zoquitlán

Canger 1976d	ni-*ki:sa*-t-ok	I am going out
	ni-mi¢-*maka*-t-ok	I am giving it
	ni-k-*toka*-t-ok	I am following him
	ni-*koči*-t-ok ni-*koč*-t-ok	I am sleeping
	ni-λ*ayo:ya*-t-ok ni-λ*ayo:y*-t-ok [niλayo:štok]	I am shelling corn
	mo-*ket*-t-ok (<ke¢a)	he is standing
	ni-k-*tek*-t-ok	I am cutting it
	ni-k-*mat*-t-ok	I am knowing it
	ni-k-*to:k*-t-ok	I am sowing it
	paλa:n-t-ok	it is flying
	mo-*kof*-t-ok (<kopa)	he is returning
	mo-*toma:h*-t-ok	he is getting fat

It is not my intention to discuss the forms cited from the various Peripheral dialects in detail. A superficial examination of them will show that the

conditions determining the loss of the stem final vowel in the compounded forms vary from dialect to dialect, and in none of the dialects do we find the *same* conditions determining also a possible late loss of the vowel in the perfect forms,

Sierra de Puebla	čo:ka–k	he cried
	čo:k–t–ok	he is crying
Isthmus	ki–no:ȼaʔ	he called him
	ki–no:ȼ–t–oʔ	he is calling him
North Guerrero	u ki–mana	she put it down (tortilla)
	ki–man–ti–ka	she is putting it down

It is generally true, however, that the loss of the stem final vowel is much more frequent in the compounded forms than in the perfect forms; this and the lack of correspondence between the conditions determining the two cases of vowel loss have made me conclude that the two should not be accounted for by the same rule, nor in the Central dialects either.

It is nevertheless obvious that the two cases of vowel loss are closely related and represent a general tendency in Nahuatl towards vowel dropping (cf maka–ki > maka–k 'gave', siwa:–λi > siwa:–λ 'woman'. For earlier examples of this tendency see Campbell and Langacker 1978.203–209, rules 2, 6, and 10). In establishing the conditions for the two cases of vowel loss in question, verb forms with the directional suffixes -*ki:w*, -*ko*, -*ki* and -*ti:w*, -*to*, -*ti* must also be taken into consideration since the stem final vowel is never dropped in those forms,

A.	*ki–no:ȼa–'ti–kah > ki–no:ȼ–'ti–kaʔ	he is calling him
	*ki–no:ȼa–ti–'nemi > ki–no:ȼ–ti–'nemi	he goes calling him
B.	*ki–no:'ȼa–ka: > ki–no:ȼ	he called him
	*ki–no:'ȼa–ka:–t > ki–no:ȼ–keʔ	they called him
C.	ki–no:'ca–ki:w	he will come to call him
	ki–no:'ȼa–ko	he has come to call him
	ki–no:'ȼa–ki	come to call him!
	ki–no:'ȼa–ti:w	he will go to call him
	ki–no:'ȼa–to	he has gone to call him
	ki–no:'ȼa–ti	go to call him!

It is not surprising that the stem final vowel is most liable to drop in A in which it (immediately) precedes the accented syllable, a potentially weak position. Factors involved in the distinct developments of B and C possibly include the relative weight of the final syllable; we know that **ka:* is reduced to *ki*, whereas -*ki:w* and -*ko* remain unreduced, and by their length or weight they may have strengthened the stem final vowel; other factors

involved can be 1) the wish to maintain the contrast between for example
B *ki–no:¢a–ka: > ki–no:¢–ki and C ki–no:¢a–ki and 2) paradigmatic
uniformity: if -*ki:w* as a long and closed syllable lends support to the stem
final vowel, then that support may have been extended to the whole para-
digm, and if the reduced *ki* < *ka:* has weakened the stem final vowel,
then that weakening may have spread to the less frequent plural form in
which the suffix is a closed syllable. However, these are mere speculations;
more work on Nahuatl phonology in general is a prerequisite for a well-
founded hypothesis in solution of these problems.

F. Nahuatl dialect groupings
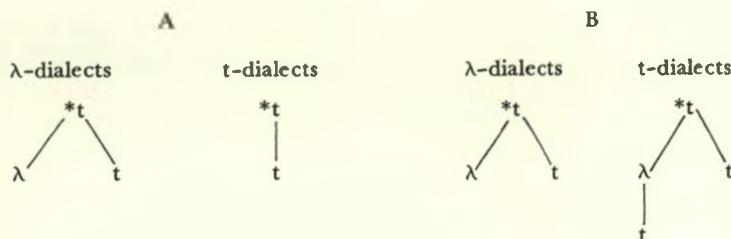
If loss of the stem final vowel in the perfect forms in fact constitutes the
innovation which I claim it does, then one might expect the Central dialects
to share other features and to be separated off from the rest of the dialect
areas by other isoglosses as well. However, so far only little work has been
done in the field of Nahuatl dialectology at all, and the loss of stem final
vowel has not been considered an important feature in dialect subgrouping.
In the following I shall briefly discuss some of the few features which have
been considered significant in a classification of Nahuatl dialects, and in
addition to the loss of stem final vowel, I shall introduce a couple of other
dividing features.

1. λ *vs t vs l.* Corresponding to Classical Nahuatl λ some dialects have *t*,
and some have *l.* This three–way correspondence has been used as the basic
criterion for a traditional classification of Nahuatl dialects, dividing them
into λ–dialects (Central and Northern dialects), t–dialects (Eastern dialects),
and l–dialects (Western dialects):

Classical Nahuatl	λa:kaλ	
Isthmus	ta:gat	man
North Guerrero	lakal	

Generally, the Central dialects, including East Puebla, have λ; the Peri-
pheral dialects to the East have *t*, but *t* is also found in the South and in
the West (Sierra de Puebla, Isthmus, and Pipil; and Quetzalapa; Durango
(Preuss 1925) and Jalisco (Cortés y Zedeño 1765); and in some dialects to
the Southwest of the Central area λ has become *l,* in some or all environ-
ments (North Guerrero, Almomoloa, Xoxocotla, Mor, and Michoacan).

However, there has been disagreement about the history of the λ–t
correspondence; some claim that the t–dialects have never had λ, and
others see the *t* in those dialects as a further development of λ, thus
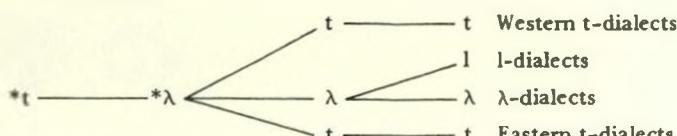
There is no doubt, however, that λ was found in Proto–Aztecan, and that it later changed back to *t* in some dialects. Campbell and Langacker (1978) give several arguments in support of this view. One of their arguments is based on a rule of l-assimilation, "tl → l/l ___ (e.g. tlaškallan *place of tortillas*, Tlaxcala, from -tlan *place of*)"; it goes, "the t–dialects show the result of l-assimilation too (e.g., komaal-li *griddle*, komaal-laan *place of griddles*), even though they are usually assumed never to have had tl. In these t–dialects, only t's which correspond to tl's of the tl-dialects change to l in l-assimilation (e.g., čiil-li *chili pepper*); regular t's (corresponding to t in the tl-dialects) remain t after l (e.g., čiil-ti-k *red*). This supports the hypothesis that the tl-change occurred before PA times, since that would account for why in the t-dialects some t's are assimilated by l-assimilation but others are not." (p 207).

The history of *t* in the t–dialects corresponding to λ in the λ–dialects is crucial for the indicativeness of the λ-t-l correspondence in matters of dialectal classification. If Proto-Aztecan had λ, then the development *t > λ is not an innovation in the Central area.

The change from λ back to *t* has taken place in several distinct areas, probably independently. The retention of λ is characteristic of one continuous area, but since it represents a simple continuation of a former state of affairs, its value as a basis for dialect grouping is limited.

The development of *l* from λ occurs in one area; however, there is not direct contact between the towns involved, and at least in Xoxocotla, Mor, *l* has been introduced within the last hundred years, "En 1887 no se registró en Xoxocotla, Mor., ni una forma con [l] = /λ/, mientras que en la actualidad la /λ-/ tiende a desaparecer cediendo su lugar a /l/," (Hasler 1961.457).

The isoglosses established by the λ-t-l correspondence may thus reflect a fairly recent situation. Schematically the development of *t before *a can be shown as in figure 4

2. -*lo* '*plural of subject*'. In Durango, Jalisco, and Michoacan we have all three possibilities (λ, *t*, and *l*) represented: in Guerra's grammar of Guadalajara Nahuatl from 1692 there is nothing but λ; but in Cortés y Zedeño's grammar also of Guadalajara Nahuatl from 1765 and in Preuss' texts collected in Durango in 1907 (Preuss 1968, 1971, and 1976) there are only *t*'s and occasional final *l*'s; in two short vocabularies from Tuxpan and San Andrés Ixtlán, Jalisco we find λ and a few incidents of *l* corresponding to Classical Nahuatl λ (Arreola 1934), and the Michoacan dialect has only *l*. On the other hand, these westernmost dialects share a peculiar and possibly very old feature: they all use the suffix -*lo* to indicate 'plural of subject',

Michoacan	65	ki–neki–*lo*–aya	they wanted it
(Sischo n.d.)		ti–k–akoparu–*lo*	we use it
	91	ti–mo–wiki–li–*lo*	we take with us
		ti–k–ana–*lo*	we take it
		ti–tami–*lo*	we finish
Jalisco 1653.174		michin ticmaca*lo*	we give him fish
(Anderson/Berdan/			
Lockhart 1976.176)		ticnequi*lo*	we want it
Jalisco 1692		"presente de indicativo, en el plural despues de la	
(Guerra)	20	rayz del verbo, se añade *lo*, v.g. titlazoltlalo,	
		— nosottros amamos" (p 20)	
	24	tiahui*lo*	we go
		aniahui*lo*	you go (pl)
		iahui*lo*	they go
		tiahui*lo*iaia	we went
		aniahui*lo*iaia	you went (pl)
		iahui*lo*iaia	they went
Durango 1907		an–tiš–maka–*l*	you (pl) give it to us
Preuss 1971.127			
	85	ya–ki–miktiá–*l*	they kill it
Preuss 1968. 57		ki–matï–*l*	they know it

In Arreola's vocabularies all finite verb forms with a plural subject are in the perfect, and so he has no examples of -*lo*.

In Pochutec the suffix -*lut* meant 'plural of subject', but only in combination with first person,

-lu´t	tibialu´t	we have	
	tuilu´t	we go	
	tuitzelu´t	we come	
	untilu´t	we are drunk	
	tichulu´t	we do	(Boas 1917.20)

This suffix -*lo* is no doubt related to the -*lo* found in Classical Nahuatl and in some other dialects indicating unspecified subject (interpreted as passive) or used in reverential constructions. It seems most likely that 'plural of subject' should be the original meaning from which the less specific 'non-distinct/polite' has developed. This is supported by the fact that -*lo* has approximately the same meaning, namely 'plural of subject' in two areas (Durango/Jalisco/Michoacan and Pochutla) which are geographically and historically distinct. However, in a recent paper (1978), Jeff Burnham has argued convincingly in favor of the other possibility, namely that the original meaning is 'unspecified subject' and that 'plural of subject' represents an innovation, independently introduced in two areas.

Whatever the original meaning, the specified use of -*lo* serves to establish the dialects in Durango, Jalisco, and Michoacan (and possibly also in Colima) as a separate dialect area of old status. Only recently has a development of λ, and probably other individual innovations, divided it into three subareas.

These Western peripheral dialects also exclusively share a reinterpretation of the word indicating possession: Classical Nahuatl has *no-aška* 'it is mine' and *i-aška* 'it is his', whereas the Western dialects have *no-yaška* 'it is mine' and *i-yaška* 'it is his'. In Guerrero and parts of Morelos another reinterpretation of the same word has taken place: *no-waška* 'it is mine' and *i-waška* 'it is his'.

With North Guerrero the Western peripheral dialects share two more features which set them off from the rest of the Nahuatl dialects: 1) their suffixes for 'imperfect' and 'conditional' are -*(y)aya* and -*skiyaya*, respectively, as opposed to, for example, Classical Nahuatl -*ya* 'imperfect' and -*skiya* 'conditional'. 2) In the singular, the verb 'to be' always includes the directional prefix *o:n* 'there' in the Western periphery; for example, Guerra (1692.22) has:

< niunca >	I am
< tiunca >	you are
< unca >	he is

3. *o: 'past' vs absence of o:*. The presence or absence of the proclitic *o:* 'past' has been linked up with the presence or absence of -*k* or -*ki*, "El rasgo c) [La presencia o ausencia del morfema /-ki/ del preterito] está ya ejemplificado en el cuadro de ejemplos que se acaba de dar,

N.W.	N.C.	N.Sept.	N.E.	
opalan	opatlan	patlanqui	patanic	'voló'

del que se desprende que el morfema /o·-/ está ausente en el Nahua Septentrional y en el del Este, sustituyéndolo con otro, cuya expresión es /-ki/ o /-ik/." (Hasler 1961.459).

Yolanda Lastra de Suárez (1974a.390) says about the "marcador de pretérito": "Todos los dialectos del Golfo sobre los que hay datos y Pochutla forman el pretérito con *-k*. Los del centro varían; unos lo forman con *o-*, otros con *-k* y los hay que combinan las dos formas. A grandes rasgos se puede decir que los dialectos centrales emplean los tres procesos: los Norte de Puebla *o-* . . *k* y *o-*; Morelos *o-*; Sur de Guerrero *-k*. Sobre los dialectos con *l* no hay datos suficientes: Tuxpan y Pómaro tienen *-k*, el norte de Guerrero *o- -k* y Almomoloa *o-*."

In discussing the perfect forms, both Hasler and Lastra de Suárez emphasize the presence versus the absence of *-k(i)* whereas I have here shown that it is rather the presence versus the absence of the stem final vowel which is significant.

Historically, and in most dialects synchronically, there are no arguments for setting up any kind of dependency or complementarity between *o:* and the perfect form. On the contrary, in Classical Nahuatl *o:* is not restricted to the perfect, it is also used with the pluperfect. It is not obligatory, and it indicates that the action expressed by the verb which it precedes takes place or has taken place before some other action. Langacker (1976.18) has pointed out that *o:* has only recently become closely connected with the verb, and he suggests that "*o* originated as a clause-initial particle, like many other modal and aspectual particles of Nahuatl."

But no doubt in some Peripheral dialects, in which final *k* has been lost with most or all the other final consonants, *o:* has recently come to be the primary indicator of perfect in the singular. This is the case in for example Almomoloa and Quetzalapa,

Almomoloa	yéʔa míki	he dies
	omíki	he died
Quetzalapa	miki	he dies
	umiki	he died
	miki	they die
	umikihki	they died

Excepting La Huasteca and the village Xalatzala (and probably some other villages in the area around Tlapa) all the Central dialects use *o:* before perfect forms. In this respect the dialect in Zoquitlán, East Puebla follows the Central dialects, and so do the Peripheral dialects in Quetzalapa, North Guerrero, Almomoloa, Durango, and Jalisco. In Michoacan a cognate *u* occurs, but only in connection with the verb 'go',

| u-ya-he | they went | (Sischo, n.d.10) |
| u-ya-k | he went | (Sischo, n.d.92) |

It could have been borrowed with just that verb, or it could have been lost in all other situations.

I consider Pochutec e, < $emo\ c$ > 'he died', to be cognate with Classical Nahuatl ye 'already' and not with Classical Nahuatl $o:$ as does Boas, but $o:$ occurs as u with the verb 'to go' (cf pages 55-56).

The isogloss running between $o:$ and absolute absence of $o:$ thus separates off the following Northern and Eastern areas: La Huasteca, Sierra de Puebla, Isthmus, Xalatzala, and Pipil from the rest of the dialects. It does not coincide with the isogloss set up on the basis of the perfect forms or with any other isogloss that I know of. At this point, presence or absence of $o:$ can therefore not be considered a basic classifying feature.

4. #ye- vs #e-. A number of words which in Classical Nahuatl begin with e have an initial y in most of the Central dialects, for example,

Classical Nahuatl	*Zitlala*	
esλi	yesλi	blood
e:λ	ye:λ	beans
etik	yeti:k	heavy
eʔšo:λ	ye:šo:λ	green beans
epaso:λ	ye:paso:λ	saltwort
epaλ	yepaλ	skunk
elpanλi	ye:lpanλi	breast
eloλ	ye:lo:λ	green corn
ekʷšoa	yekšoa	sneeze
eʔko	yehko	arrive (here)

The Eastern dialects, Pipil, Isthmus, and Sierra de Puebla, but also La Huasteca and Zoquitlán have #e-. All the dialects to the west of these — except a few villages in Jalisco and possibly Michoacan — have #ye-.

The fact that we have #e- registered for Classical Nahuatl and for seventeenth and eighteenth century Nahuatl of Jalisco (Guerra 1692 and Cortés y Zedeño 1765) suggests that the preposing of y is a fairly recent development which has occurred in the Central and Western dialects.

For classificatory purposes it is important to observe that also this isogloss, between #e- and #ye-, sets off the Eastern dialect areas, and that this time La Huasteca and Zoquitlán follow the Eastern dialects.

However, it is not necessarily significant that such a large area has adopted #ye- since the change from #e- to #ye- is a perfectly common development known from a number of languages, and it could well have taken place independently in more than one area, or it could have spread through the whole area from one center.

It should be noted that the words

yehwa	he
ye:yi	three
ye	already
ye:kλi	good

begin with *y* in most dialects, and they are thus not diagnostic.

5. *-tin 'plural' vs absence of -tin and plural of personal pronouns.* In Classical Nahuatl plural of nouns is marked in a number of ways, among others through the suffixes *me?* and *tin*, distributed so that nouns ending in a vowel will take only *me?* of the two, whereas nouns ending in a consonant will vary freely between *me?* and *tin*,

koyo:-λ	coyote
koyo:-me?	coyotes
pi¢o-λ	pig
pi¢o-me?	pigs
to:tol-in	hen
to:tol-me?	
to:tol-tin	hens
okič-λi	man
okič-me?	
okič-tin	men

Carochi (1645.404) says that *-tin* is used more frequently than *-me?* with these nouns and almost exclusively after glottal stop. In Classical Nahuatl *-tin* occurs optionally with personal pronouns and some quantifiers,

te?wa:n(tin)	we
ame?wa:n(tin)	you (pl)
ye?wa:n(tin)	they
mieki:n(tin)	many
moči:n(tin)	all (pl)
seki:n(tin)	some

The suffix *tin*, or reflexes of it, is not found in all dialects, and in the various dialects where it does occur, it is not used equally extensively. The presence versus the complete absence of *-tin* divides the Nahuatl into two areas, a Western and an Eastern area. In the Eastern area, to which Sierra de Puebla, Isthmus, and Pipil belong, the suffix *tin* is unknown. It
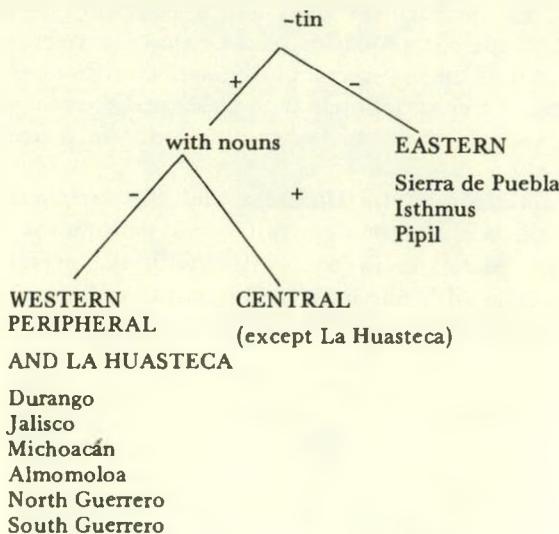
seems that the East Puebla area in this respect follows the three mentioned areas, but the data available are not conclusive.

According to the *use* of *-tin*, the remaining dialects are divided into two, on the one side a Central area and on the other a number of Peripheral dialects. In the Central area, which comprises North Puebla, Classical Nahuatl, Milpa Alta, Morelos, and Central Guerrero, but not La Huasteca, *-tin* is used as one of several plural markers with nouns. I believe there is a great deal of free variation in the whole area between *-meʔ/meh* and *-tin*. In Xalatzala *-meh* seems to be winning out, *-tin* is used only rarely in that dialect.

Characteristic of La Huasteca and the Peripheral dialects which use *-tin* at all, is that *-tin* does not occur with nouns. It is used only as an obligatory pluralizer in connection with the personal pronouns and in some dialects with one or several quantifiers. These Peripheral dialects are the following: Durango, Jalisco, Michoacan, North Guerrero, and South Guerrero.

La Huasteca	tohwa:nteh	we
	ihwa:nteh	they
Durango	tehwante	we
	yehwante	they
	mošte	all (pl)
Jalisco	tewantin	we
1692 and 1765	yewantin	they
	moč(in)tin	all (pl)
	miak(in)tin	many
	oksekintin	others
Michoacan	tewante(n)	we
	yiwante(n)	they
	moštin	all (pl)
Almomoloa	teánti	we
	yeʔánti	they
	mušti	all (pl)
North Guerrero	teʔwa:nde ⎱ tuʔwa:nde ⎰	we
	yaʔwa:nde	they
	mušti	all (pl)
Quetzalapa	tehwanti	we
	ihwanti	they

The divisions resulting from the presence versus absence of -*tin* and from the use made of -*tin* can be shown schematically,

This presentation may give the impression that the Central and Western peripheral dialects share the specific use of -*tin* as pluralizer of the personal pronouns. However, that is not entirely true. The distinction between the Central area and the Western peripheral dialects is based on use or non-use of -*tin* with nouns. The plural forms of the personal pronouns lead to further subgroupings in several areas.

In the Eastern area the personal pronouns are pluralized by the suffix -*meh*, but only in Pipil and Isthmus,

Pipil	< teχé-met>, < témet >	we
	< yeχé-met >, < yémet>	they
Isthmus	tehemeh	we
	yehemeh	they

However, the adjacent dialects in Guerrero from the Central area (Xalitla, Copalillo, Zitlala, Acatlan, and Xalatzala) also use-*meh* with the personal pronouns, for example:

Zitlala	tahwameh	we
	yehwameh	they

Interestingly enough some of these same dialects use *-meh* also with the word 'all', Zitlala: *noči-meh*.

In another subgroup made up of Sierra de Puebla, Zoquitlán, Tlaxcala, Ahuacatlán, and North Puebla neither *-tin* nor *-meʔ/meh* is used with the personal pronouns; instead they have *-n* or whatever corresponds to final *n* in the given dialect,

North Puebla	[teʔwa:]	we	
	[yeʔwa:]	they	
Ahuacatlán	tehwan	we	
	yehwan	they	
Tlaxcala	tehwah	we	
	yehwah	they	
Zoquitlán	[tefa]	we	
	[yefa]	they	
Sierra de Puebla	tehwa	we	
	yehwa	they	

Thus of the Central dialects, which are characterized by the use of *-tin* as plural marker for a class of nouns, only the following use *-tin* with the personal pronouns: Teotihuacan, Classical Nahuatl, Milpa Alta, and Tetelcingo; and the suffix is in all these dialects optional when used with the personal pronouns.

The Pochutec material does not add anything to the history of the suffixes *meʔ* and *tin*. Boas 1917 has only two nouns with a distinct plural suffix (p 15),

g'lazt	woman
qui–g'laz–qui't	women
teque't	man
te–tequet–qui't	men

and he gives the following personal pronouns,

nen	I
mue'n	you (sg)
igüe'n	he
tue'n	we

The historical interpretation of the facts around *-tin* is no doubt complicated. Roughly it seems that *-meʔ/meh* is replacing *-tin*; this process has

been completed in the eastern dialects; in La Huasteca and the Western peripheral dialects vestiges remain only in some lexicalized forms like, 'we', 'you' (pl), 'they', 'all' (pl), and 'many'; and only in the Central dialects centering around Tenochtitlan is *-tin* still productive and commonly used. Whorf gives an example of *-tin* suffixed to a Spanish loan word, *kawaʔtin* 'horses' (Whorf 1946.382). In the northern and southern part of the Central area *-tin* has been lost in connection with the personal pronouns, probably under the influence of the dialects spoken to the east of them.

According to this tentative and sketchy interpretation, the most conservative tendency is represented by Tenochtitlan which in other respects appears as a center of innovations.

6. *Conclusion.* Until more data has been gathered and until more thorough examinations have been made of the data available, I can do no more than offer the following observations:

1. the Western dialects which use the suffix *-lo* to indicate 'plural of subject' (Durango, Jalisco, Colima(?), and Michoacan), thereby constitute an area split off from the rest of the Nahuatl area(s) at an early time.

2. a number of isoglosses consistently separate the three Eastern dialect areas, Sierra de Puebla, Isthmus, and Pipil, from the rest of the dialect areas.

3. one significant isogloss is established by the perfect forms of the verbs — not directly through the variegated and confusing picture presented by the occurring forms (*pala:nki, pala:, pala:nik, pala:n, pala:niʔ, pala:ŋi, pala:ni*), but only through the interpretation which I have here proposed for these many forms.

We know that the Nahuatl speaking people came in waves from the North. The innovators, those who dropped the stem final vowel in the verbs under certain specified conditions, were probably identical with the last group of invaders, the group which made Tenochtitlan their center and became masters in Central Mexico. It seems likely that the innovation was not started till this last group was settled in the Valley of Mexico and that it spread out from there: in Xalatzala *-ki* is still retained in some verbs, and in a manuscript from the Tlapa area from 1758 we have the following form < oquichiuique > /oˑ ki-či·wi-keʔ/ 'they did it' (Dehouve 1976.142) showing only the first step of the innovation: stem final *a > i*; possibly the rear guard of the last group did not come all the way, but stayed in what is now the southern part of San Luis Potosí and the northern part of Hidalgo (La Huasteca). This was beyond the immediate sphere of influence exerted by Tenochtitlan, so those did not take part in all of the innovation, they did not drop *-ki*. Furthermore, they became influenced

by other groups of Nahuatl speakers; in agreement with the Eastern dialects they dropped the *o:* 'past', stopped using *-tin* with nouns, and did not change initial *e-* to *ye-*.

III. VERBS IN -*OA*

A. -oa $<$ *-V̆wa

In all the Nahuatl dialects we find intransitive verbs in –ĭwi, –āwi, or –ŏwi, corresponding to most class II verbs in -*oa*.

¢o:l–iwi	it becomes narrow
λa–¢o:l–oa	he makes something narrow
pe¢–iwi	it is shiny
λa–pe¢–oa	he polishes something
i?λak–awi	it gets hurt, damaged
λa–i?λak–oa	he hurts, damages something
λap–owi	it opens
λa–λap–oa	he opens something

More examples are included in appendix, pages 161–67.

The main thesis of this chapter is that the -*oa* which is characteristic of these class II verbs comes from Proto-Aztecan *-V̆wa,

$$\text{*-V̆wa} \rightarrow \text{-oa}$$

Since this development is shared by all Nahuatl dialects *and* Pochutec, it must have occurred already in Proto-Aztecan.

It is here assumed that this -*oa* was in contrast with -*o:wa* at the time, and that that contrast was only neutralized later. Thus the derivation of -*oa* from *-V̆wa represents a *historical* change, and it is not in contradiction with the thesis of chapter I: that from a *synchronic* points of view -*oa* of class II verbs — whatever the pronunciation — is most appropriately analyzed as *oa* in all modern dialects.

The suggested derivation of -*oa* from *-V̆wa is based on the following five observations:

1. existing intransitives which correspond to the transitive verbs in -*oa* end in -V̆wi.
2. most verbs in -*wa* have a long vowel preceding -*wa*.
3. transitive/intransitive verb pairs in -*oa*/-V̆wi share a number of features with transitive/intransitive verb pairs in -*V:wa*/-*V:wi*.
4. applicatives formed from verbs in -*oa* are most simply derived from -V̆wa.
5. the rule, -V̆wa → -*oa*, applies also to verb stem plus a suffix -*wa* which indicates 'unspecified subject'.

1. Transitive -a, intransitive -i. In Nahuatl most transitive verbs end in *a* and most intransitive verbs end in *i.* This is generally true both for un-derived and for derived verbs,

intr	koči	he sleeps
intr	yo:li	he lives
tr	ki–maka	he gives it to him
tr	ki–no:ȼa	he calls him
intr	ȼopi	it becomes completed
tr	ki–ȼopa	he completes it
intr	tomi	it becomes loose
tr	ki–toma	he loosens it
intr	λapa:ni	it breaks
tr	ki–λapa:na	he breaks it
intr	ȼaya:ni	it tears
tr	ki–ȼaya:na	he tears it

The situation is more complex than these examples suggest. There are in-transitive verbs in *-a* and transitive verbs in *-i;* furthermore, corresponding to intransitives in *-ni,* we often find transitives in *-nia;* and a suffix, *-ka* consistently forms only intransitive verbs,

intr	ki:sa	he goes out
tr	ki–mati	he knows it
intr	čipi:*ni*	it drips
tr	ki–čipi:*nia*	he makes it drip
intr	či–čipi*ka*	it drips repeatedly
intr	λa–λapa*ka*	it shatters
intr	ȼa–ȼaya*ka*	it tears in many places

However, there is no doubt that the final vowel is or has been connected at one time with the transitivity of the verb. This claim is supported by the fact that no verb ends in *-e,* and that — apart from the derived verbs in *-(l)o,* traditionally called passives — only some four or five transitive verbs end in *-o* (cf page 63).

This use and distribution of final *a* and *i* in verbs turns out not to be restricted to Nahuatl alone; in discussing Uto-Aztecan verb stems, Whorf says (1935.602), "CVCV-stems are also capable of having certain changes made in V^2, for grammatical reasons, as in, e.g., Hopi *so˙ma* 'tie', *so˙mi* 'be tied'. The vowels *a* and *i* are the commonest in this position and are regularly associated with transitive and with passive or resultative ideas respectively."

The verb pairs ending in *–V̄wi/-oa* do not disagree with the general pattern: the intransitives end in *i* and the transitives end in *a,* but the relationship between the two is not so obvious and simple as it is with for example *ni* vs *na* (or *nia*) and with *ti* vs λa. However, if we assume that *oa*

comes from *-ĭwa*, *-ăwa*, or *-ŏwa*, then this implies that at one time there was an equally simple relationship between the intransitives in *-ĭwi*, *-ăwi*, and *-ŏwi* and the corresponding transitives,

¢o:lïwi/*co:lïwa	become narrow/make narrow
pe¢iwi/*pe¢iwa	shine
iʔλakawï/*iʔλakawa	become damaged/damage
λapowi/*λapowa	open

2. *Most verbs in -wa end in -V:wa.* If *-V̆wa* has become *-oa* according to a general rule, then one would expect to find no cases left of *-V̆wa*. In fact, the vowel preceding *-wa* is in almost all verbs long.

Before going into a general discussion of verbs in *-wa*, I shall deal separately with those ending in *-o:wa*. In spite of the fact that I know of only one case of *-oa* < *-ŏwa*, *λapoa*, 'open', it is still necessary to account for verbs in *-o:wa*.

According to the claim made in chapter I, there is no distinction in the phonetic realization of underlying *-oa* and underlying *-o:wa*. Thus for every verb which ends in the phonetic sequence [oa] ~ [oʷa] ~ [owa] it must be established individually whether the sequence represents underlying *oa* or *o:wa*. I showed that the perfect usually makes this a fairly simple matter: the perfect of verbs in *-oa* is *-oʔ*, and of verbs in *-o:wa* it is *-o:w*.

čo:loa	čo:loʔ	make narrow
pe¢oa	pe¢oʔ	polish
ko:wa	ko:w	buy
popo:wa	popo:w	clean
po:wa	po:w	count
so:wa	so:w	unfold
sepo:wa	sepo:w	crush
opo:wa	opo:w	tell jokes

Also due to the neutralization of *-oa* and *-o:wa*, the phonetic realization gives no basis for determining the length of *o* in *o:wa*, but wherever length is indicated, the phonetic realization of the perfect in *-o:w* has a long *o* (cf page 30), both in Classical Nahuatl and in other dialects. This is only what I would expect, because according to the thesis of this chapter Proto-Aztecan *-ŏwa* should become *-oa*, and so the sequences which represent underlying *-o:wa* must have an underlying long *o*.

In Classical Nahuatl a few intransitive verbs ending in the sequence [oa] ~ [oʷa] ~ [owa] form the perfect by suffixing *-k*,

< cepoa(c) >	become numb
< (tla)youa(c) >	turn dark
< tecoyoa(c) >	roar

and thereby do not reveal whether the <oa> represents underlying *-o:wa*
or *-oa*. For <cepoa> and <(tla)youa> an unambiguous *w* in other forms,
<cecepouhqui> *sesepo:wki* 'numb' and <youilia> *yo:wilia* 'stay till night',
shows that we must posit *-o:wa* as the underlying sequence. A more im-
portant argument for positing *o:wa* is that according to the rules for the
formation of the perfect as presented in chapter II and discussed later
in this chapter, we cannot get a perfect form in *-oak* from verbs which in
Proto-Aztecan times had *-V̆wa*. By rule 3, page 115, *a* is dropped in the
environment –ŏw__kV, and by the following rules the perfect must end up
-oh = -o?. Thus the perfect in <-oac> is in itself evidence for an under-
lying sequence *-o:wa*.

For a certain type of verbs in <-oa(c)> the long vowel can be deduced
from other forms: from abstract nouns in *-yo:λ* both intransitive verbs (in
<-oa(c)>) and transitive verbs (in *-o:tia*) are formed,

te:n-yo:λ	fame
< tēnyoa(c) >	become famous
te:n-yo:tia	make famous

The perfect in *-k* (<c>) shows that we cannot posit underlying *-oa*, and
the long *o* in *te:nyo:λ* and *te:nyo:tia* gives an argument for assuming a
long *o* also for the intransitive verb, thus *te:nyo:wa(-k)*.

This leaves one apparent problem: corresponding to the transitive
<mauiçoa>, perf. <mauiço> 'wonder at', we find an intransitive <mauiçoa,
mauiçoac> 'become famous'; according to the analysis presented above,
the <oa> in the transitive verb must represent Proto-Aztecan *-V̆wa*, and
in the intransitive verb <oa> should represent *-o:wa*, but the *o* cannot be
both short and long. As it turns out, we are dealing with two "different
o's". In treating nouns in *-yo:λ*, p 457, Carochi (1645) writes both the in-
transitive verb and the other relevant forms of this word <mahuizço->
thereby indicating that they are formed from the stem *mawis-* with a
suffixed *-yo:-*, thus the intransitive <mahuizçoa> represents underlying
mawis-yo:-wa, whereas the transitive <mahuiçoa> represents Proto-
Aztecan *mawis V̆wa*.

It should thus be clear that there is reason to treat verbs in *-owa*
separately, and it should also be clear that they present no problems to
the suggested analysis. I shall proceed to other verbs in *-wa*.

Most verbs in *-wa* belong to two well defined groups: there are the
underived verbs, usually of the shape *CV:wa* (cf appendix, pages 152-60),
they include verbs in *Co:wa* (cf page 102); and there are the derived
inchoatives in *-wa* (cf appendix, pages 168-70).

35 derived inchoatives in *-wa* are listed in appendix. Of these 11 are
found in Carochi (1645) with a long vowel preceding *-wa*, 16 of the re-

maining are attested in modern dialects with a long stem final vowel. In one of these, *mela:wa*, the *a:* is not marked long in Carochi, but it is not marked short either. Likewise the stem final *a* is unmarked for length in the one incident which Carochi has of *poyawa* 'become thin'. I have not found either *poyāwa* or any of the following: *kasāwa, peyāwa, sasamāwa, yapalēwa, paȼāwa,* or *λilēwa* in the data available from any modern dialects. For 27 verbs out of 35 we thus know positively that the vowel preceding the suffix -*wa* is long; in the case of the remaining verbs, the stem final vowel may be long; but not for a single one of these 35 verbs can a stem final *short* vowel be definitively established. This suggests that the long stem final vowel is a defining feature for this group of verbs. Andrews has made the same observation, and he presents it without any reservation or discussion, "The theme suffix on the intransitive stem of the second kind of thematic verb is -*hua*. The final vowel of the root is always long." (Andrews 1975.88).

The number of underived verbs in -*wa* is naturally small,

ȼa:wa	spin
či:wa	do, make
e:wa	rise
pe:wa	begin
ka:wa	leave
se:wa	it is cold
ma:wa	infect
ša:wa	paint
yēwa	beg
inēwa	miss, err
iyāwa	offer, sacrifice

The most common of these verbs (či:wa, e:wa, pe:wa, ka:wa, se:wa) are found in Carochi's grammar; he indicates the vowel of the penultimate syllable as long. For the length of the first vowel in *ȼa:wa, ma:wa,* and *ša:wa,* there is evidence from one or more modern dialects (Brewer and Brewer 1962.51, and 191, and Kaufman 1969b.107). But the length of the first vowel in the following verbs: *yēwa, inēwa,* and *iyāwa* is unattested. In several modern dialects, we find a form *ye:wa-tika* 'he is sitting' which may be cognate with *yēwa* 'beg' (Canger 1976b.20, and Canger 1976g.30).

There are two underived verbs with an attested short vowel preceding -*wa*,

iwa	send
sawa	fast

In the first one, *iwa*, the short vowel is word initial, and the final *a* is underlyingly long (cf the applicative *iwa:lia*), both factors which may have kept the *-V̆wa > oa rule from applying.

The second verb, *sawa,* presents no immediate features which can explain why the rule has not applied to it. It is possibly related to a verb omi*sawi* 'become bone-skinny', omi*sawi*tia, 'make bone-skinny', but these forms do not suggest any explanation for the non-application of the rule.

However, it is suspicious that there are no underived verbs of the shape *Coa* (< *CV̆wa) among the many verbs in *-oa.* It is possible that the rule converting *-V̆wa* into *-oa* is restricted to cases where *-wa* is a suffix. The fact that most underived verbs in *-wa* have a long vowel in the penultimate syllable would then be accidental and irrelevant in a discussion of that rule.

3. Features shared by -oa/-V̆wi and -V:wa/-V:wa verb pairs. The features shared by *-oa/-V̆wi* verbs and *-V:wa/-V:wa* verbs include both semantic and phonologic characteristics.

In both groups of verbs, the intransitives are inchoatives; the transitives are causatives. It is generally common to these verbs that they indicate something about the (size) shape or surface, in the case of the intransitives, of the subject; in the case of the transitives, of the object,

pisiliwi	it becomes small
čama:wa	it becomes big
ilakaɟiwi	it becomes twisted
kana:wa	it becomes thin
λayiliwi	it becomes dirty
čiya:wa	it becomes dirty

Naturally, the examples are here selected specifically to illustrate the semantic characterization suggested for the verbs belonging to the two groups. Not all of these 128 verbs will appear quite as suitable as examples. The characterization is furthermore vague and may therefore seem to be insignificant as a unifying feature for this category of verbs. In chapter V this summarizing semantic description will be discussed and contrasted with semantic descriptions of other groups of verbs; and it should there become clear that although the characterization is broad, all these verbs still share some basic semantic feature.

From verbs in the two compared groups an adjectival form in *-k/-ki* is found,

čičikawi	čičikaw-ki	stained
ilakaɟiwi	ilakaɟiw-ki	twisted
piličawi	piličaw-ki	wrinkled
čama:wa	čama:wa-k	big
kana:wa	kana:wa-k	thin
čiya:wa	čiya:wa-k	stained

It it furthermore characteristic of both groups that some of the verbs have

variant forms in *-(k)tilia/-(k)tiya* and a variant adjectival form in *-(k)tik*,

tepi¢awi tepi¢-tiya	it becomes hard
ki–tepi¢oa ki–tepi¢–tilia	he makes it hard
tepi¢aw–ki tepi¢–tik	hard
wapa:wa wapa–ktiya	it becomes hard
ki–wapa:wa ki–wapa–ktilia	he makes it hard
wapa:wa–k wapa–ktik	hard

The transitive verbs of verb pairs in *-V:wa/-V:wa* were discussed under 2 (page 104), and it was suggested that the long vowel preceding *-wa* is a defining feature for those verbs. That suggestion is now extended to cover both the transitive and the intransitive verbs of these pairs, and the long vowel is thus viewed as one defining characteristic of that whole group of verbs. The main defining feature, *-wa* (or *-wa/-wa*), is assumed to be a suffix for several reasons: first of all because simple verbs in Nahuatl have the canonical shape CVCV; secondly because the stems of some of the verbs occur in variant forms with *-ktilia/-ktiya* and without *-wa/-wa;* and thirdly because these verbs display the mentioned semantic similarities in addition to the phonologic similarities which have been the primary motivation for establishing the group as such.

On the other hand, *-wa* (*-wa/-wa*) is not a productive suffix; it occurs only with the stems listed in appendix pp 160-70, and apart from the variant forms in *-ktilia/-ktiya/-ktik*, these stems are always followed by *-wa.*

Verbs in this group thus consist of a stem, usually of the shape CVCV:- and a suffix *-wa.*

If we accept that *-oa* comes from **-V̆wa*, then it is now natural to suggest — with the same arguments as those invoked in the case of *-wa/-wa* verbs — that verbs in *-oa/-Vwi* also consist of a stem and a suffix, the suffixes here being **-wa/-wi.*

¢oli–wi	it becomes narrow
ki–¢oloa < **-¢oli–wa*	he makes it narrow

This set of suffixes has become frozen and permanently connected with a certain definable set of stems (cf pages 161–67), just as the case is with *-wa/-wa.* For the present discussion it is irrelevant that *-oa/-iwi* have recently acquired status as suffixes with a specialized function which is unrelated to the function **-wa/-wi* must be assumed to have had when

they were previously productive and carried some restrictive meaning.
–oa/–iwi now serve to form Nahuatl verbs from borrowed Spanish verbs
(cf page 123),

kosta:riwi	it costs x
ki-kosta:roa	it costs him x

Only very few of the stems suffixing *–wa/–wa* are longer than CVCV–,
whereas a great many of those suffixing **–wa/–wi* are of the shape CVCVCV–,
and there is reason to believe that the last –CV– is one of several affixes
which have possibly had a precise and restricted meaning at some time; an
example is *–ča–*,

api–ča–wi	becomes stiff with cold
kelo–ča–wi	becomes wrinkled
kolo–ča–wi	becomes wrinkled
kopi–ča–wi	becomes bowl-gutter-shaped
pili–ča–wi	becomes wrinkled
ši–šipo–ča–wi	swells
šolo–ča–wi	becomes wrinkled

The similarity in meaning is striking. Other affixes are *–li*, *–ʠa–*, *–si–*, and
–ki–, but the verbs in which they occur are not as remarkably similar in
meaning.

Only one such affix is found with *–wa/–wa* verbs,

ista-le:–wa	it becomes white
kami-le:–wa	it becomes red, ripe
yapa-le:–wa	it gets black-and-blue marks
λil–e:–wa	it becomes black
(< λil-le:–wa)	

Again a specific semantic domain is clearly connected with the affix, here
that of color.

To sum up: the similarities between *–oa/–Vwi* verbs and *–V:wa/–V:wa*
verbs are:
1. the intransitive is inchoative
2. they include something about (size) shape or surface in their meaning
3. they have adjectival forms in *–ki/–k*
4. they have variant forms in *–(k)tilia/–(k)tiya/–(k)tik*
5. they can be analyzed into a stem and the suffixes **–wa/–wi* and *–wa/–wa*,
   respectively.

The differences between the two groups of verbs appear insignificant in
comparison with all these shared features. One important difference is the
length of the stem final vowel, which precedes the suffixes; it is long
before *–wa/–wa* but short before **–wa/–wi*. The length of the stem final

vowel is also at the base of another difference: the shape of the adjectival form includes the full stem plus *k* for -*wa*/-*wa* verbs, but with *-*wa*/-*wi* verbs the stem is syncopated and we get the full suffix *ki*,

$$\begin{array}{lll}
\text{čama:wa–k} & < & \text{*čama:wa–k}i \\
\text{ko:lïw–ki} & < & \text{*ko:lïwi–ki}
\end{array}$$

Given the similarities discussed above, then this difference in length of the· the stem final vowel suggests that the two groups of verbs were originally one, which split into two because of different phonological conditions and developments.

There are two serious problems working against such a suggestion. One is the *k* which appears in -*wa*/-*wa* verbs in the variant forms with the suffixes -*tilia*/-*tiya*/-*tik*. That *k* is never found in *-*wa*/-*wi* verbs, and I have no ready explanation for it.

The second problem, the differing suffix for the intransitive verbs *-*wa* vs -*wi*, is an even weightier argument against identifying the two groups of verbs and simply ascribing all of the following differences to the length of the stem final vowel,

1. transitive	-*oa* ($<$ *-$\tilde{V}$wa)	vs	-*wa*
2. adjective	-*wki*	vs	-*wVk*
3. variant	-*V-tilia*	vs	-*CV-ktilia*
4. intransitive	-*wi*	vs	-*wa*

However, the intransitives of -*wa*/-*wa* verbs do not end in -*wa* in all dialects, and a fairly detailed treatment of these verbs seems appropriate here.

*a. The dialectology of -*wa*/-*wa* verbs.* In all the dialects for which data are available, the transitives of -*wa*/-*wa* verbs end in -*wa*, with the one exception of La Huasteca, Western section, which has -*wilia* in analogy with a category of verbs derived from nouns and with another group of verbs (cf Appendix under YA), thus

|		
paλa:wa	it becomes broad	Kaufman 1969b.113
ki-paλa:wilia	he makes it broad	Kaufman 1969b.113
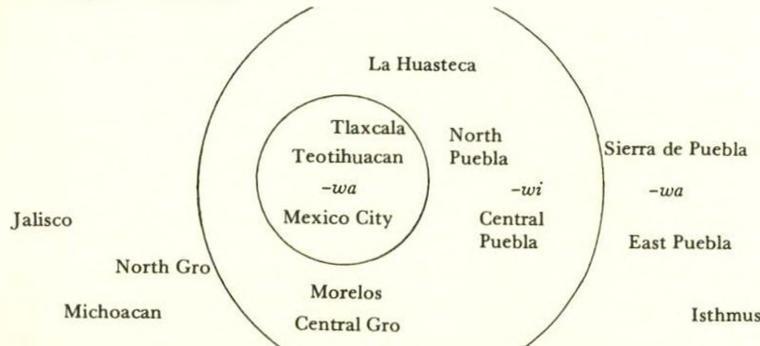
There is less agreement about the phonologic shape of the intransitives of -*wa*/-*wa* verbs. In fact we find four different shapes:

present	*perfect*	
toma:wa	toma:wa–k	
toma:wi	toma:w	
toma:waya	toma:waya–k	
toma:wiya	toma:wiy(–ki)	[toma:wiš(ki)]

The occurrence of the last two is restricted, *toma:waya* is the form used in two dialects, Sierra de Puebla and Isthmus, and *toma:wiya* is found only

in one dialect area, La Huasteca (Western Section). The two forms are probably expansions of *toma:wa* and *toma:wi*, respectively (cf Isthmus *toma:waya* 'it gets plump', *itomahka* 'its thickness' (Wolgemuth 1969.4) and La Huasteca W. Section *toma:wiya* 'it gets thick', *toma:wilo:λ* 'thickness; *čika:wiya* 'it gets hard', *i-čika:hka* 'its hardness' (Kaufman 1969b.50, 113); in the nouns corresponding to these verbs there is no trace of the final -*ya*). -*ya* is possibly a well-known Nahuatl suffix which will be discussed later, p 110. It is thus suggested that we are dealing with only two different forms, *toma:wa* (*toma:waya*) and *toma:wi* (*toma:wiya*).

The distribution of the two is intriguing: *toma:wa* occurs in a small area around Mexico City: Classical Nahuatl, the present Distrito Federal, Teotihuacan, and Tlaxcala; for lack of data it is impossible to stake out the exact limits of this narrow central area; *toma:wa* is also the form used in the peripheral areas: North Guerrero, Michoacan, Jalisco (1692 and 1765), East Puebla, Sierra de Puebla, and Isthmus. The other form, *toma:wi*, is found in the dialects encircling the narrow *toma:wa* area encompassing Mexico City; we find *toma:wi* in Central Guerrero, Morelos, Central Puebla, North Puebla, and La Huasteca. Schematically the distribution can be depicted thus,

In Pipil some of the verbs have -*w-i* and others have -*wa(-k)*.

However, the adjectival form in -*k* has the shape *toma:wak* also in those dialects in which -*wi* occurs as the suffix for the intransitive verbs. In a few dialects the variant form in -*ktik*, *tomaktik*, has been generalized and has superseded *toma:wak*, but apart from those dialects *toma:wak* is the form found everywhere, and nowhere have I encountered **toma:wik* or **toma:wki*.

It is irrelevant for this discussion that both *toma:wak* and *toma:waya* in some dialects have undergone various reduction rules, [toma:k], [toma:], [toma:wa(y)?], etc. The phonemic shapes here quoted can in all cases be unambiguously established as immediately underlying forms.

On the basis of the exclusive occurrence of the adjectival form *toma:wak*,

with *-wa*, and because of the particular distribution of *toma:wa* — it is both central and peripheral — it seems most plausible that the form in *-wa* is the older of the two, and that the form in *-wi* represents an innovation. This hypothesis is supported also by the abstract noun formed from the stems in question; in both North Puebla and Central Guerrero, it has retained *-wa*, *toma:walisλi* 'thickness' (Cuacuila, Zitlala).

It was suggested in chapter II (page 83) that the intransitivity is instrumental in the retention of the stem final vowel in the formation of the adjectival forms, but the details surrounding this complex of problems are still unexplored.

The suffix *-ya* forms inchoatives both after some element *ti* and with a group of stems to be discussed in chapter V,

čičil-ti-ya	it becomes red
čičil-ti-k	red
¢ope:li-ya	it becomes sweet
¢ope:li-k	sweet

In most dialects, including those which have changed *-wa* to *-wi*, the perfect of these verbs is formed with *-k*,

čičil-ti-ya-k	it became red
¢ope:li-ya-k	it became sweet

In some dialects there is free variation between this form and one without the stem final vowel,

čičil-ti-y	[čičiltis]	it became red
¢ope:li-y	[¢ope:lis]	it became sweet

In the dialects where *-wa* has become *-wi*, this change must be assumed to have taken place concurrently with the raising and subsequent loss of the stem final vowel in the perfect form of other verbs. For the intransitives of *-wa/-wa* verbs, apparently this general innovation in the formation of the perfect was in competition with the undefined specific status or "immunity" given to inchoatives in *-wa* and *-ya*. In the narrow area around Mexico City, the protection of intransitive *-wa* and *-ya* against stem final vowel loss won out, we get *toma:wa-k;* whereas in the rest of the Central dialects, analogy with the regular perfect formation through raising, vowel loss, and finally loss of the suffix *-ki* and analogy with the other group of inchoatives, in *-wi* (*-wa/-wi*), led to a raising of the final *-a* and a loss of it in the perfect: toma:wi — toma:w.

The boundary between the Central dialects which have *-wi* and the peripheral dialects which retain *-wa(ya)* is identical with the boundary delimiting the innovative formation of the perfect. In other words, the dialects which dropped the stem final vowel in the perfect are exactly

those dialects which changed -*wa* of the intransitive -*wa*/-*wa* verbs to -*wi*.
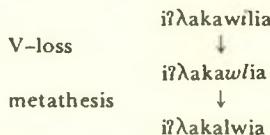
This cooccurrence of the two isoglosses strongly supports the view that the development of -*wi* from -*wa* was influenced by the innovation of the perfect formation.

The preceding has been a brief presentation of certain facts regarding the intransitives of -*wa*/-*wa* verbs, the different shapes, and the distribution of these over the many dialects. It has not led to an historical identification of the reported -*wi* in these verbs with the -*wi* found in -*oa*/-*wi* verbs, an identification which would have been gratifying. However, in a last attempt I wish to suggest that the intransitives of verbs in -*wa*/-*wa* did end in *-*wi* originally, and that this *-*wi* was changed to *-*wa* already in Proto-Aztecan times under the influence of the preceding long *a*, *toma:wi → toma:wa; after all, in this group of verbs there are some which have retained (?) final *i* in *all* dialects,
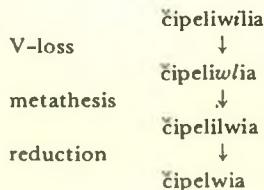
čaya:wi	get strewn
mo–moya:wi	spread
tepe:wi	be scattered
toya:wi	pour out

Even without a complete identification of the two sets of suffixes, (–*oa* <) *-*wa*/-*wi* and -*wa*/-*wa*, the close relationship between them should be obvious.

4. Applicatives formed from verbs in -oa are most simply derived from -Vwa. This observation concerning applicatives formed from verbs in -*oa* is the main topic of chapter IV, so it will only be summarized here: the expected applicative for, for example (iʔλakoa <) *iʔakāwa is *iʔλakawilia; the applicative actually found in Classical Nahuatl, iʔλakalwia, is derived from *iʔλakawilia through vowel-loss and a simple metathesis:

	iʔλakawilia
V–loss	↓
	iʔλakaw*l*ia
metathesis	↓
	iʔλakalwia

In verbs in which the last consonant before *w* is *l*, a further reduction takes place:

	čipeliwilia
V–loss	↓
	čipeliw*l*ia
metathesis	↓
	čipelilwia
reduction	↓
	čipelwia

5. Impersonals in -oa. Originally I had wanted to use the formation of certain impersonals, <nemoa> 'one lives', <ki:šoa> 'one goes out', <tešoa> 'one grinds', <wečoa> 'one falls', etc. as a fifth argument in support of the rule changing *-$\breve{V}$wa to -oa:

The so-called impersonal verb forms end either in <-oa> or in -*wa.* Carochi consistently marks the vowel preceding this suffix *wa* long, thus *a?ši:wa, yo:li:wa, itki:wa,* etc. It would therefore be natural to consider the impersonals another case where the suggested rule has applied, nemi + wa > <nemoa>.

The perfect of these impersonals does not concur with this interpretation, it is formed with -*k*, <nemoac> etc., rather than the expected *nemo?.* This presumably means that at the time when *polowaki was changed into *polowki*, which later became *poloh(ki)/polo?(ki)*, the perfect <nemoaqui> (<*nemiwaki) did not even exist, and if the <-oa> of these impersonals is the result of the rule *-$\breve{V}$*wa* > -*oa*, then it must represent a more recent application of that rule than the one found in the *-*wa/-wi* verbs.

However, another realistic possibility is that <nemoa> was derived from *nemo-wa* not long ago, and the form would then be irrelevant for the present discussion. A full treatment of the forms called passives and impersonals is a necessary prerequisite for the determination of the most probable origin of impersonals in <-oa>, but that is way beyond the scope of this chapter.

B. The other forms constructed from verbs in -*oa*

Before I proceed to discuss the other forms of verbs in -*oa* and their possible history I wish to emphasize that I find the proposed derivation of -*oa* from *-$\breve{V}$*wa* to be correct beyond any doubt. Whatever problems the reconstruction of the other forms of verbs in -*oa* may present, these will not invalidate the rule changing *-$\breve{V}$*wa* to -*oa*. On the contrary, the other forms must necessarily be viewed in relation to this reconstruction.

The chronology of -o? and -o:-. Anyone trying to trace the history of verbs in -*oa* must account for the development of three different shapes of the "stem", -*o?*, -*o:*, and -*oa*,

-*o?*   appears in the perfect and in compounds
-*o:*   is found in the future, the imperative, with the directional suffixes -*to, -ti:w -ti* and -*ko, -ki:w, -ki* and before -*lo*
-*oa*   is used in the present, the imperfect, and with -*ni*

1. **polo?-ka:*
   polo?-ti-VERB$_2$

2. *polo:–s–ka:
    polo:–ka:n
    polo:–ti:w, etc.
    polo:–ki:w, etc.
    polo:–lo

3. poloa
    poloa–ya
    poloa:–ni

There are no obvious factors in the environments for the three shapes which can determine the different developments. We have –*ka:*- both after –*o?* and –*o:*, both voiced and unvoiced consonants follow –*o:*, and we also have voiced consonants after –*oa*.

There is no evidence anywhere else in the language to the effect that *k* and *t* of *ka:* and *ti* + VERB$_2$ are phonetically different from other cases of *k* and *t*.

Arguments involving stress and the length of the suffixes are also of little use here. The suffixes after *o:* are generally longer than –*ka:*, but then –*ti* + VERB$_2$ is longer than any of those.

Two possible explanations remain: the three shapes have developed at different times or there were junctures of different status between verb and suffix leading to the different results. These two possibilities can be seen as two ways of describing the same situation.

However, it seems clear that both *o?* and *o:* owe their shape to the fact that they are followed by suffixes. –*oa* is the full form which we get when nothing follows. –*ni* is not found in all dialects and its meaning varies considerably from dialect to dialect (from conditional, to agentive, to reverential). I imagine that –*ni* has developed into a suffix from a somewhat freer particle following the verb and with a fairly wide area of meaning. The vowel preceding –*ni* is lengthened at its suffixation, a feature which this suffix shares with another suffix –*ni* characterizing the group of verbs I call NI–verbs (cf chapter V and appendix pages 171–73).

The discussion of –*ya* in chapter II (pages 55–59) suggests that –*ya* has only recently acquired status as a suffix. These two suffixes are thus assumed to be of recent date and have not had time to change or influence the shape of the preceding –*oa*-.

As to the chronologic ordering of *o?* and *o:*, I suggest that *o:* precedes *o?* in time. In other words, the suffixes –*ka:* and –*ti* + VERB$_2$ are not as old as the suffixes found after *o:*. There are a number of arguments in support of this hypothesis:

1) more suffixes are used with *o:* than with *o?*

2) In the future *-*ka:* is suffixed to the *s*. It is likely that the suffix for 'future' originally had the shape *sV*; most suffixes in Nahuatl are of the shape CV. In fact, the vowel is preserved in at least three different dialects;

in the whole of the La Huasteca area, in Michoacán, and in at least one village in Central Guerrero, the future plural ends in *-se(:)h*. Probably there were two competing forms at one time, **-sV-t* and **-sV-ka:-t* (alongside of **-sV* varying with **-sV-ka:*), and in the three mentioned dialects the first form won out giving *-se(:)h*, but in the rest the second form became generalized resulting in *-s-keh*. **-ka:* can thus be considered an extension of an older future form, for example, **ki-poliwa-sV* 'he will lose it'.

3) The directional suffixes have been considered to be reflexes of Uto-Aztecan suffixes (Crapo 1970), but then constructions including two verbs, one of which is a verb of motion, are also probably quite old. They are common in a number of the Uto-Aztecan languages. However, verb$_2$ in these compounds are in Nahuatl all verbs which can be recognized and used as independent verbs. The history of the affix *-ti-* which in Nahuatl connects the two verbs in unknown. To my knowledge it is not found in other Uto-Aztecan languages, and may well be a Nahuatl innovation introduced after the process changing **-ŏwa-* to *-o:-* had stopped being productive.

The development of the forms given on pages 112–13 involves the establishment of at most eight consecutive stages and five rules which are now presented and briefly commented on wherever necessary. The forms assumed to exist at each stage are listed in columns according to the terminal shape of the stem: in the left column are the forms which end up with *-o:-*, in the center column those with *-oʔ(-)*, and in the right column those with *-oa(-)*. Little attention is here paid to the form of the suffixes. Those suffixes which have not been specifically discussed are simply given the shape they have to-day; this no doubt results in some malformations the parts of which belong to different periods, but since the details of the suffixes are not decisive for the application of the rules, we shall have to accept these unrealistic forms until more extensive work has been done in the reconstruction of Nahuatl verbal morphology. For the future form, *-sV* is arbitrarily given throughout as the only suffix rather than *-sV-ka:* or *-s-ka:*.

I   *polïwa–sV   *polïwa
        *polïwa–ka:n
        *polïwa–ti:w
        *polïwa–ki:w
        *polïwa–lo

RULE 1: $\check{V} \rightarrow \check{o}/\underline{\quad}$ wa

II   *polŏwa–sV   *polŏwa
        *polŏwa–ka:n
        *polŏwa–ti:w
        *polŏwa–ki:w
        *polŏwa–lo

Rule 1 does not apply to the applicatives because the suffix -*lia* had already previously conditioned a raising of stem final *a* to *i*, **poliwa-lia* > **poliwi-lia.*

RULE 2: $*\bar{o}wa \rightarrow o:/\underline{\quad}$ C

III	polo:-sV	*polōwa
	polo:-ka:n	
	polo:-ti:w	
	polo:-ki:w	
	polo:-lo	

In addition to the listed verbal forms, at least one nominalization existed at this stage, λ*a-polo:-lis-*λ*i* < **ta-poliwa-lis-ta.*

IV   The suffix -*ka:* and -*ti*+VERB₂ are introduced

polo:-sV	*polōwa-ka:	*polōwa
polo:-ka:n	*polōwa-ti-VERB₂	
polo:-ti:w		
polo:-ki:w		
polo:-lo		

RULE 3: $*a \rightarrow \emptyset / \begin{Bmatrix} h \\ \bar{o}w \end{Bmatrix} \underline{\quad} \begin{Bmatrix} k \\ t \end{Bmatrix}$ V

V	polo:-sV	*polōw-ka:	*polōwa
	polo:-ka:n	*polōw-ti-VERB₂	
	polo:-ti:w		
	polo:-ki:w		
	polo:-lo		

This rule also accounts for the loss of stem final vowel in verbs of class I, for example,

*kʷaha-ka: > kʷah-ka:
*kʷaha-ti-   > kʷah-ti-

cf page 61.

RULE 4: $*w \rightarrow h / \underline{\quad} \begin{Bmatrix} k \\ t \end{Bmatrix}$

VI	polo:-sV	polōh-ka:	*polōwa
	polo:-ka:n	polōh-ti-VERB₂	
	polo:-ti:w		
	polo:-ki:w		
	polo:-lo		

RULE 5: $w \rightarrow \emptyset / \bar{o} \underline{\quad} a$

RULE 6: the contrast between *oa* and *o:wa* is neutralized:

$\left. \begin{matrix} oa \\ o:wa \end{matrix} \right\} \rightarrow [owa] \sim [o^w a] \sim [oa]$

VII   polo:-sV   polŏh-ka: poloa
       polo:-ka:n   polŏh-ti-VERB$_2$
       polo:-ti:w
       polo:-ki:w
       polo:-lo

VIII   The suffixes -*ya* and -*ni* are introduced

       polo:-sV   polŏh-ka: poloa
       polo:-ka:n   polŏh-ti-VERB$_2$ poloa-ya
       polo:-ti:w   poloa-:ni
       polo:-ki:w
       polo:-lo

It is possible to reduce the number of stages to seven because the suffixes -*ya* and -*ni* can have been introduced at any time after stage III. Both suffixes begin with a voiced consonant, and so they do not trigger rule 3 which drops the stem final vowel.

Rule 3 is formulated so as to account also for verbs in -*ia*, cf page 61.

$$\begin{array}{cc} \text{*miktiha-ka:} & \text{*miktiha-ti-} \\ \downarrow & \downarrow \\ \text{miktih-ka:} & \text{miktih-ti-} \end{array}$$

If we assume that -*iha* is the original shape for the -*ia* of class II verbs, then we must posit three rules parallel with the above rules 2, 5, and 6 in order to account for the remaining forms of these verbs:

RULE 2a: *-iha → i:/___ C   or more generally to include class I verbs:

*-V$_1$ha → V:$_1$/___ C

$$\begin{array}{cc} \text{*miktiha-sV} & \text{*k}^w\text{aha-sV} \\ \downarrow & \downarrow \\ \text{mikti:-sV} & \text{k}^w\text{a:-sV} \end{array}$$

RULE 5a: h → Ø/i___ a   or more generally, again to include class I verbs:

h → Ø/V___ V

$$\begin{array}{cc} \text{*miktiha} & \text{*k}^w\text{aha} \\ \downarrow & \downarrow \\ \text{miktia} & \text{k}^w\text{a} \end{array}$$

RULE 6a: the contrast between *ia* and *iya* is neutralized:

$\begin{array}{c} \text{ia} \\ \text{iya} \end{array}$ → [iya] ~ [i^{y}a] ~ [ia]

It should be noted that rules 5–6 and 5a–6a produce vowel sequences, *oa* and *ia*, which are otherwise rare in Nahuatl (cf chapter I, page 31).

No doubt this sketchy analysis of the origin of class II verbs raises numerous questions. At this point however, I wish only to comment on three omissions which I have made, partly in order to simplify the exposition:

The *pluperfect* and the form in *-skia* (conditional) have not been included because they were introduced into the language quite late (cf pages 57–58) and because they are expansions of the perfect and the future respectively. They are therefore assumed to behave and affect the stem exactly like those two forms.

The *imperative* is given only with the plural suffix *-ka:n*. There is no suffix in the singular:

    ki-polo: lose it!

However, I must assume that there was a suffix for 'imperative (singular)' at the time when rule 2 was operative. It may be that the final *-n* of *-ka:n* is the original marker of 'plural' and something like *-ka:* the marker of 'imperative'. It was dropped later possibly under the influence of the homophonous *-ka:* 'perfect'.

The *present* tense is not given in the plural, *poloa-ʔ*. At stage I, it may have been **polïwa-t*, but the rule has not affected it as one would expect. The only explanation I can offer to account for this, is that the *-ŏwa* was retained in analogy with the singular form. On the other hand, the whole question concerning the plural of verbal forms must be examined more carefully before a definitive and satisfactory explanation can be reached.

Conclusion

The rule changing *-V̆wa* to *-oa* has been the main subject of this chapter, and yet it has not been stated clearly whether it applies unconditionally or whether it is restricted in some way, for example, to verbal morphology (cf page 104). Having discovered the rule, I found it more important to investigate its consequences for the analysis of class II verbs than to define its area of application and so have not studied it in relation to nouns or nominal morphology or to other phonologic phenomena.

However, it seems likely that the rule does in fact apply unconditionally; but it should be explicitly stated that it does not apply when the *a* of *V̆wa* is long, cf *siwa:λ* 'woman' and forms with *-wa:n* 'plural' of possessed nouns, for example *no-čka-wa:n* 'my sheep'. In certain dialects, the rule has applied recently to the word for 'woman', giving *sowaλ* (*soaλ* ?), probably after the *a* was shortened.

IV. THE FORMATION OF THE APPLICATIVE

In his Arte Mexicana of 1595, Antonio del Rincón is the first to treat separately "verbos applicatiuos" (p 253) and "verbos reuerenciales" (p 254). To my knowledge he is also the first to use the term applicative about a group of Nahuatl verbs, which he defines as follows, "Verbo applicatiuo es. el que significa la action del verbo, donde desciende perteneciente a otro, a quien juntamente denota, atribuiendosela por via de daño o prouecho, quitandosela o poniendosela," (p 253). Put differently, an applicative allows and demands one object more than the verb from which it is derived, and this new object functions somewhat like an indirect object,

ni–λa–ma:ma	I carry something
ni–miȼ–λa–ma:ma:lia	I carry something for you
ni–λa–kʷa	I eat something
ni–k–λa–kʷa:lia in notaʔȼin	I eat something of my father's

Since only the formation, and not the meaning or function, of the applicative is of concern in this chapter, the fact that applicatives are also used as "reverentials" is here irrelevant; and no specific effort is made to find exact translations for the applicatives quoted.

From Rincón and to most recent grammatical treatments, there is general agreement that applicatives are formed with one of two — or possibly three or four — different suffixes, *-lia*, *-wia* (*-il-wia* ∼ *-al-wia*), and that the distribution of these is predictable, depending upon the stem to which they are added; however, the choice between *-il-wia* and *-al-wia* has by most scholars been considered unpredictable. A number of fairly regular changes in the stems and some irregular formations are usually listed.

The purpose of this chapter is to demonstrate that applicatives with the mentioned suffixes can all be derived from some form with the one suffix *-lia*.

A. Classical Nahuatl

1. -lia. In Classical Nahuatl, verbs ending in underlying long *a* form the applicative by adding *-lia*,

iwa: [iwa]	send	iwa:–lia
kʷa: [kʷa]	eat	kʷa:–lia

ma:-ma: [ma:ma]	carry	ma:-ma:-lia
pa: [pa]	color	pa:-lia
so:ma: [so:ma]	frown	so:ma:-lia
λaʔ-λa-ma: [λaʔλama]	fish	λaʔ-λa-ma:-lia

These are the verbs which at one time ended in *-aha (cf pages 61 and 116), thus for example *k^waha gives k^wa: and *k^waha-lia gives k^wa:-lia.

In final position underlying long vowels are realized short, and only through evidence from other forms are the underlying long final vowels established. In traditional descriptions there were no arguments for distinguishing long and short final vowels, and there was consequently also no explanation for the different formation of these applicatives and those formed from verbs ending in short a.

Verbs ending in short a added -lia, but they furthermore changed, weakened or raised a to i,

koto:na	cut	koto:ni-lia
λapa:na	break	λapa:ni-lia
či:wa	make	či:wi-lia
weȼka	laugh	weȼki-lia
o:ya	shell (corn)	o:yi-lia
i:na:ya	hide	i:na:yi-lia

The last two applicatives appear to be irregularly formed when written in the traditional orthography in which the sequence yi is often rendered by a simple i, <ōya> : <ōi-lia>, <īnāya> : <īnāi-lia>. The orthography makes it appear as though all of ya were changed into i.

Verbs ending in i also added the suffix -lia,

nemi	live	nemi-lia
ayi	do	ayi-lia
miki	die	miki-lia
k^wi: [k^wi]	take	k^wi:-lia

In verbs ending in short i or in short a, the addition of the suffix -lia causes palatalization of preceding s or ȼ,

aʔsi	reach	aʔši-lia
i:makasi	fear	i:makaši-lia
pa:wasi	cook in a pot	pa:waši-lia
λa:sa	throw	λa:ši-lia
osa	anoint	oši-lia
weȼi	fall	weči-lia
no:ȼa	call	no:či-lia

Other suffixes cause the same palatalization, for example -tia which forms causatives,

| aʔsi | reach |
| aʔši-tia | make reach |

Its effects are found in all Nahuatl dialects *and* Pochuteco, so as a rule it goes back at least to Proto-Aztecan times. This rule of palatalization is consistently accompanied by a raising of stem final *a* to *i* as in, for example, *no:ca* 'call' − *no:či-lia* 'call for', but it is no longer productive, and the exact conditions which triggered it are unclear.

The same rule of palatalization also changed some incidents of *t* to *č*, but with much less regularity than in the case of *s* and *ɋ*,

			mati	know	mači-lia
			pa:ti	melt	pa:ti-lia
mo:λa	<	*mo:ta	throw (rock)		mo:či-lia
šo:λa	<	*šo:ta	catch fire		šo:či-lia
λasoʔλa	<	*tasoʔta	love		λasoʔti-lia
paλa	<	*pata	change		pati-lia
λaλa	<	*tata	burn		λati-lia

The few examples of *ɋ* which has not been palatalized before *-lia* and *-tia*, *ɋaʔɋi-lia* and *weɋi-tia* can be explained as occurring in formations that were produced after the rule stopped being productive or after the conditioning factors had been lost. In the case of *t* not palatalizing, I am more inclined to suggest that the palatalization rule applied only optionally to *t*. In some dialects, it seems to have applied to even fewer incidents of *t* than in Classical Nahuatl,

CL Nahuatl	La Huasteca	Sierra de P.	North Gro
mo:čilia	mo:tilia	mo:tilia	mu:tilia
šo:čilia		šo:tilia	šu:tilia

But here − as with most of the other issues raised − more data from more dialects will give a much clearer picture of the situation and will make it possible to go beyond mere suggestions.

Verbs ending in *-ia* would be expected to form applicatives in *-ii-lia*, however, the cluster of two *i*'s is simplified, and we get *-i-lia*

ɋi:ɋkia	seize	ɋi:ɋki-lia

In a few verbs the short final *a* is not weakened at the suffixation of *-lia*,

čiya	await	čiya-lia
piya	guard	piya-lia
na:moya	steal	na:moya:-lia

It seems probable that *iy* has protected the following *a* from weakening in *čiya* and *piya*, *-iyi-* being a sequence prone to drastic syncope. Concerning *na:moya*, Corochi cites the applicative only in one place (p 467), but with

a long *a* preceding the suffix *-lia*. If the final vowel in *na:moya* is in fact underlyingly long, then that would place the verb with the first group of verbs here mentioned, *kʷa:* 'eat', *so:ma:* 'frown', etc. and the retention of *a* before *-lia* would be quite regular. However, *na:moya* forms the perfect in *-k*, *na:moyak*, so if it has an underlying long final *a*, then this either has a different history from that of the long *a* in *kʷa:*, etc. (cf page 61) or the perfect is the result of a reinterpretation.

2. *-wia (-al-wia ~ -il-wia ~ -ol-wia)*. The traditional grammatical treatments tell us that verbs in *-oa* form applicatives in *-wia* if an *l* precedes the *-oa* and in *-ilwia* or *-alwia* if some other consonant precedes *-oa*,

pol–oa	lose	pol–*wia*
iʔλak–oa	damage	iʔλak–*alwia*
pa:ɟ–oa	deflate	pa:ɟ–*ilwia*

The choice between *-ilwia* and *-alwia* is predictable, not on the basis of the transitive verb in *-oa*, but from the form of the intransitive verb which ends either in *-iwi* or *-awi*. There is absolute correspondence between, on the one hand *-iwi* and applicatives in *-ilwia*, and on the other between intransitives in *-awi* and applicatives in *-alwia*.

iʔλak*awi*	be damaged	iʔλak*alwia*
pa:ɟ*iwi*	become deflated	pa:ɟ*ilwia*

In fact, there are also some examples of *-olwia* which may correspond to intransitives in *-owi*,

λapo*wi*	λapoa	open	λapo*lwia*
	kokoa	hurt	koko*lwia*
	sakamoa	till	sakamo*lwia*

No intransitive form in *-owi* is attested for *kok-* and *sakam-*, but for *kok-* the *o* appears in *koko-ya* 'get sick'.

It seems more appropriate to derive the applicative either from the corresponding intransitive verb or from a reconstructed form of the transitive verb. In chapter III it has been argued that *-oa* of these transitive verbs comes from earlier *-V̄wa*. Granted that this derivation is correct, then for the examples given, the applicatives should be derived from the following underlying forms,

*polīwa–lia	>	polwia
*iʔtakāwa–lia	>	iʔλakalwia
*pa:ɟīwa–lia	>	pa:ɟilwia
*tapōwa–lia	>	λapolwia

But clearly this development has taken place in several steps. First of all it

must be assumed that *a* preceding the suffix *-lia* was raised — as it was in other cases (page 119) — giving *poliwi-lia, *iʔλakawi-lia, *pa:ȼiwi-lia, and *λapowi-lia. Later this *i* was dropped, and *w* and *l* were metathesized,

	*poliwalia	*iʔtakawalia	*pa:ȼiwalia	*tapowalia
*a → i	↓	↓	↓	↓
	*poliwilia	*iʔtakawilia	*pa:ȼiwilia	*tapowilia
*i → Ø/w__'lV	↓	↓	↓	↓
	*poliwlia	*iʔλakawlia	*pa:ȼiwlia	*λapowlia
*wl → lw	↓	↓	↓	↓
	*polilwia	iʔλakalwia	pa:ȼilwia	λapolwia

In verbs with the consonant *l* immediately preceding *-oa* or *-V̄wa*, the development went one step further: the vowel between the two *l*'s and also one *l* were dropped,

*polilwia > polwia

The applicative from one verb in *-oa, te:moa* 'search' displays no metathesis, it is *te:molia*. This form is not restricted to Classical Nahuatl, it is the form found in most dialects, cf chart p 125-28. At the time when the applicatives were formed, *-oa* of *te:moa* must have been in contrast with *-oa* of for example *poloa*, possibly *te:moa* versus *poliwa*. So the two applicatives must be assumed to have had the following history,

*te:moa–lia	*poliwa–lia
↓	↓
*te:moi–lia	*poliwi–lia
↓	
te:mo–lia	polwia

The form *te:moilia* is still found in La Huasteca, and for Pipil Schultze Jena (1935.344) gives the form <*ni-ta-temu-il-ía*>, and Hugo Leicht (1934. 324) quotes the form *temoilia* for some dialect in the state of Puebla.

Since applicatives in *-ilwia* and *-alwia* can be analyzed as results of a metathesis, there is no reason — from a historical point of view — to posit the suffix *-wia* in any applicative, and it is also thereby established that there is no connection between this *-wia*, the outcome of a metathesis, and the suffix *-wia* which derives verbs from nouns with the meaning of "use or apply whatever the denotation of the noun",

a:kal–li	boat
a:kal–wia	pass in a boat
te–λ	rock
te–wia	hit with a rock

ista–λ	salt
ista–wia	put salt on
es–λi	blood
es–wia	stain with blood

One conclusion which can be drawn from this analysis is that the applicative as a productive form was introduced already in Proto–Aztecan, that is, before rule 1 of chapter III (page 114) became effective. According to that rule the short vowel of *–V̄wa became *o*, but in the applicative, the original quality of the vowel is retained. This conclusion is corroborated by the operation of the rule palatalizing *s* and *¢*; it has been observed that this rule is also a Proto–Aztecan rule: its results are found in all dialects and in Pochutec, cf *kisá* 'leave' versus *kiši* 'take out' (Boas 1917).

The formation of applicatives involving a metathesis is no longer productive; on the contrary, in several dialects *–lwia* or *–wia* have been reinterpreted and acquired status of independent suffixes. In Tetelcingo, we find *–lwia* in verbs which have never had any *w*, for example,

pi:¢a	blow	pi:¢a*lwia*
soso	prick	soso*lwia*
čihča	spit	čihča*lwia* (or < čihčal–i + wia)
yeso:λa	vomit	yeso:λa*lwia* (or < yeso:λal–i + wia)

They are formed in analogy with applicatives corresponding to verbs in *–oa*, (cf also Classical Nahuatl *ikopi* 'close the eyes' : *ikopilwia*, *iška* 'roast' : *iškalwia* (or < λa–škal–λi + wia), and *se:wa* 'be cold' : *se:walwia* (or < se:wal–λi + wia)).

In some dialects, *–wia* now also forms part of the standard paradigm of suffixes employed in deriving Nahuatl verbs from Spanish verbs; cf Karttunen and Lockhart (1976a.32–35) for a discussion of these loan verbs,

Tetelcingo:

| kosta:r–*ewi* | 'cost' | kosta:r–*oa* | kosta:r–*wia* |
| nesesita:r–*ewi* | 'be needed' | nesesita:r–*oa* | nesesita:r–*wia* |

North Puebla:

| kosta:r–*iwi* | 'cost' | kosta:r–*oa* | |
| | 'think' | pensa:r–*oa* | pensa:r–*wia* |

B. Dialectology of applicatives from –V̆wi/*–V̆wa verbs

The development of applicatives from verbs in *–V̄wa which was presented for Classical Nahuatl has not taken place in all Nahuatl dialects. It is, in fact, restricted to dialects spoken in a narrow area around Mexico City. We find the metathesized forms in Milpa Alta (Whorf 1946.388), North

Puebla, and Tetelcingo. Unfortunately, I have no examples from Tlaxcala or other dialects in the Valley of Mexico. Applicatives are not generally found in the available sources in any great number so most of the applicatives I have collected which are relevant for this discussion are included in the chart covering the following four pages.

Some of the forms contained in the chart are relatively abstract in the sense that they are not quoted in their phonetic surface shapes; a number of late rules have been ignored in order to simplify the comparison. These late rules will be mentioned so as to make it quite clear that they are of no consequence in this connection:

In North Guerrero *h* is realized as *ʔ* and *o* is realized as *u*. Both in La Huasteca and in several other dialects an *h* is inserted between *l* and *w*, for example in North Guerrero *ȼo:lwilia* is realized [ȼu:lhwilia]. The fact that *λ* is realized as *l* in North Guerrero is ignored only where we have a form from both dialects, thus *λapowilia* is the form found in La Huasteca, but in North Guerrero it is *lapuwilia,* and *lapačwilia* is not attested for La Huasteca. In North Guerrero *ȼ* and *č* are realized as *s* and *š* before a consonant. In Zitlala and Acatlán *-V-lia* is realized as *-V̆lya*. All the examples from Tetelcingo are from Brewer and Brewer 1962, and their orthography has been modified as indicated in the introduction to make the forms comparable to those from Classical Nahuatl.

The parentheses around *li* in the forms from North Puebla show that there are two variant forms in that dialect, for example *ȼolwilia* and *ȼolwia.* The parentheses around *pihpiličo:wilia* in Acatlán indicate that the informant had difficulties producing the form.

In the chart we find applicatives from eleven different localities, and according to the shape of the applicatives these eleven dialects can be divided into three groups:

I   La Huasteca and North Guerrero
II   Mecayapan, Sierra de P., Xalitla, Zitlala, Acatlán, and Xalatzala
III   Classical Nahuatl, Tetelcingo, and North Puebla

The dialects in groups I and II do not form natural geographical groups.

In group I we have the dialects in which the applicatives are the closest to the posited underlying forms. In both dialects, *i* is dropped when preceding *-wi-lia,* thus

    ȼeȼeliwi-lia > ȼeȼelwi-lia

APPLICATIVES FROM VERBS IN -OA

	I	II			III	
	La Huasteca North Gro	Mecayapan Sierra de P. Xalitla Zitlala	Acatlán	Xalatzala	Classical N. Tetelcingo	North Puebla
*ȼeȼeliwi–lia sprinkle	ȼeȼelwilia				ȼeȼelwia	
*ȼo:liwi–lia shrink	ȼo:lwilia	ȼo:lowilia		ȼolwilia		ȼolwi(li)a
*cihkoliwi–lia make crooked					cikolwia	ciʔkolwi(li)a
*cicinawi–lia burn					(ci)cinalwia Vhcinilwia	
*ihkʷiliwi–lia write	ihkʷilwilia	kʷilowilia	ihkʷilo:lia	ihkʷilwilia	iʔkʷilwia	iʔkʷilwi(li)a
*i:lakaȼiwi–lia twist	i:lakaȼwilia	i:lakaȼowilia		ilakaȼolwilia	i:lakaȼilwia	
*ihλakawi–lia damage	ihλakawilia	ihλakowilia ihtakawilia	ihλako:wilia	ihλakolwilia	iʔλakalwia	iʔλakalwi(li)a
*kakalaciwi–lia roast						kakalaciwi(li)a
*kimilVwi–lia roll up					kimilwia kimelwia	
*ko:liwi–lia bend					kolwia	
*komoliwi–lia make hollow	komolwilia	komolowilia				

	I	II			III	
	La Huasteca North Gro	*Mecayapan Sierra de P. Xalitla Zitlala*	*Acatlán*	*Xalatzala*	*Classical N. Tetelcingo*	*North Puebla*
*kotoȼawi–lia shrink	kotoȼa:wilia	tolkoȼowilia			kotoȼalwia	
*kʷe:čiwi–lia grind	kʷe:čwilia				kʷe:čilwia	
*kʷe:liwi–lia bend	kʷe:lwilia	kʷelowilia				
*-malakačiwi–lia turn	malakačwilia				malakačilwia	
*mimiliwi–lia make round	mimilwilia				mimilwia	mimilwi(li)a
*napalVwi–lia carry	napalwilia				napalwia	
*nekʷiliwi–lia bend					nekʷilwia	nekʷilwi(li)a
*neliwi–lia stir	nelwilia				nelwia	
*noliwi–lia twist		nolowilia		čiki-nolwilia	nolwilia	
*ololiwi–lia make round	kololwilia					

*pa:¢iwi-lia deflate	pa:¢owilia	pa:¢owilia pa:¢wilia		pa:¢olwilia	pa:¢ilwia	pa:¢ilwi(li)a
*pačiwi-lia collapse	pa:čwilia	pačowilia			pačilwia	
*paλačiwi-lia make flat	palačwilia				paλačilwia	
*pe¢iwi-lia polish	pe¢wilia	pe¢owilia	pe¢o:lia	pe¢olwilia	pe¢ilwia pe¢alwia	pe:¢ilwi(li)a
*pe¢kawi-lia slip					–pe¢kolwia pe¢kalwia	
*pepečawi-lia stick	pepečwilia		pepečo:lia			pepečalwi(li)a
*peliwi-lia split open	čiki-pe:lwilia	či:-pelowilia		čiki-pelwilia	či-pelwia	pelwi(li)a
*pi¢awi-lia make hard	tepi¢(a)wilia				tepi¢alwia tepi:čilwia	tepi:¢alwi(li)a
*piličawi-lia wrinkle			(pihpiličo:wilia)			piličalwi(li)a
*pilVwi-lia hang	pilwilia	pilowilia		pilwilia	pilwia	
*pišawi-lia wrinkle		pi:šowilia			pišalwia	
*poliwi-lia lose	pololwilia polwilia	polowilia	polo:lia	polwilia	polwia	polwi(li)a

	I	II			III	
	La Huasteca North Gro	Mecayapan Sierra de P. Xalitla Zitlala	Acatlán	Xalatzala	Classical N. Tetelcingo	North Puebla
*sa:liwi-lia stick	sa:lwilia	sa:lowilia	sa:lo:lia	sa:lowilia	sa:lwia	salwi(li)a
*šeliwi-lia split	šešelwia šelwilia	še:lowilia			šelwia	šelwi(li)a
*ši:λaɟiwi-lia make smooth						ši:λaɟilwia
*šoločawi-lia wrinkle	šošoločwilia				šoločalwia	
*λapačiwi-lia cover	lapačwilia				λapačilwia	λapačilwi(li)a
*λapowi-lia open	λapowilia	λapowilia	λapo:wilia	λapolwilia	λapolwia	λapolwi(li)a
*λahλa:liwi-lia make dirty						λaʔλa:lwi(li)a
*teɟi:liwi-lia twist	teɟi:lwilia	teɟilowilia			teɟi:lwia	teɟilwi(li)a
*tekipačiwi-lia make sad	tekepačwilia				tekipačilwia	
*yawaliwi-lia make round					yawalwia yewalwia	yewalwi(li)a
search	te:mo:ilia	te:mo:lia te:mo:wilia	te:mo:lia	te:molwilia	te:molia	te:molia

In that same position the vowel *a* is dropped only in some verbs,

ihλakawi–lia	La Huasteca
kotoȼa:wi–lia	North Guerrero
šošoločwi–lia	La Huasteca
tepiȼ(a)wi–lia	North Guerrero
pepečwi–lia	North Guerrero
tekepečwi–lia	North Guerrero

In connection with the formation of the perfect, La Huasteca was seen to be a conservative dialect, preserving *-ki*. The conservatism of La Huasteca and the fact that two otherwise distant dialects agree on applicatives just one rule removed from the posited underlying forms present strong evidence in support of these underlying forms.

The dialects in group II also show considerable geographical spread, and it is probable that the common development has occurred independently in two or three of the areas in question. All six dialects in this group agree on changing *i* or *a* through a rounding rule to *o* before *–wilia*,
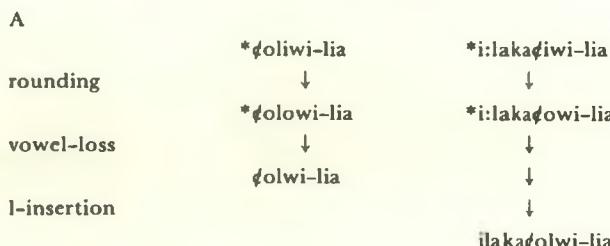
$$V \rightarrow o \: / \underline{} \text{wilia}$$
$$*\text{ȼo:liwilia} > \text{ȼo:lowilia}$$
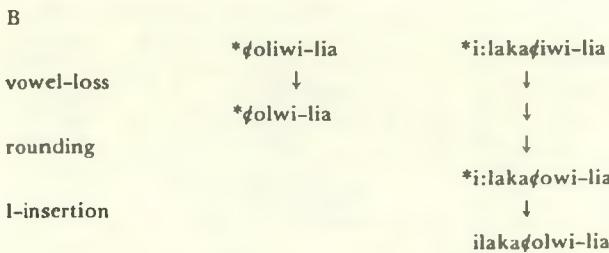
This is the vowel which in group I was dropped, in all cases if it was *i* and in some cases if it was *a*.

The one dialect Acatlán goes on to simplify the form by dropping *wi* which follows *o*, and in compensation *o* is lengthened,

$$*\text{ihk}^w\text{iliwilia} > \text{ihk}^w\text{ilowilia} > \text{ihk}^w\text{ilo:lia}$$

In Xalatzala we find applicatives which resemble the ones in Classical Nahuatl in having *l* before *–wilia*, *ilakaȼolwilia*. However, Xalatzala shares the rule, $V \rightarrow o/\underline{}$ wilia, with the other dialects in group II. Furthermore, the suffix *–lia* has not lost its *l*, and so the *l* preceding *wilia* must in Xalatzala have been inserted. There is in fact a reasonable explanation for this insertion: in those verbs where an *l* precedes **-Vwilia*, the vowel following this *l* was dropped in Xalatzala. It is a question whether the vowel which was dropped had first been rounded (A), or whether the rounding rule follows the vowel-loss rule (B),

A

	*ȼoliwi–lia	*i:lakaȼiwi–lia
rounding	↓	↓
	*ȼolowi–lia	*i:lakaȼowi–lia
vowel-loss	↓	↓
	ȼolwi–lia	↓
l-insertion		↓
		ilakaȼolwi–lia

B

	*¢oliwi–lia	*i:laka¢iwi–lia
vowel-loss	↓	↓
	*¢olwi–lia	↓
rounding		↓
		*i:laka¢owi–lia
l-insertion		↓
		ilaka¢olwi–lia

Since Xalatzala is geographically close to Zitlala and Acatlán, and since the vowel–loss rule is specific to Xalatzala it seems most likely that the rounding rule applied in all the dialects of Central Guerrero, and that the vowel–loss rule is a later rule.

In whichever order the two rules applied, the vowel–loss rule produced a great many applicatives with an *l* preceding *wilia*, and these forms have most likely served as a model for the rest of the applicatives in which an *l* was subsequently inserted.

In a manuscript from 1758 (?) found in the municipio of Copanatoyac, near Xalatzala (Dehouve 1976.144), the form <xitechmotlapapolhuili> 'forgive us' occurs; this seems to show that the vowel was lost at least before 1758. On the other hand, for this specific verb, influence from Nahuatl of Tenochtitlan may have been significant (cf page 131).

In group III, there is perfect agreement between Classical Nahuatl and Tetelcingo. But in North Puebla, we find a variant form in *-lwilia* which I can only explain as a development based on analogy with other applicatives which all end in *-lia*. The origin of the *l* preceding *-wia* in applicatives formed from *-Vwa* verbs has been forgotten so to speak, and a new *li* is added to make these applicatives more similar to applicatives from other verbs.

It is interesting that in Xalatzala and North Puebla we have a number of identical applicatives which have different histories in the two dialects,

	Xalatzala		*North Puebla*
	*¢o:liwilia		*¢o:liwilia
rounding	↓	V–loss	↓
	*¢o:lowilia		*¢o:liwlia
V–loss	↓	metathesis	↓
	¢olwilia		*¢o:lilwia
		il–loss	↓
			¢olwia
		li–insertion	↓
			¢olwilia

The dialects in group III also geographically and with respect to other linguistic features form one group, but a much narrower group than the one defined in chapter II as the group of Central dialects which dropped the stem final vowel in the perfect. This suggests that the metathesis, characteristic of applicatives in dialects of the present group III, was an innovation that spread from Tenochtitlan at a time fairly shortly before the conquest, and it will be important to establish the exact limits of this metathesis.

In Key and Key's dictionary of the Sierra de Puebla dialect (1953), we find the verb *tetapohpolwia*, meaning 'to forgive', clearly formed from *teta-pohpoliwi-lia* ("to lose something for someone") and involving metathesis. In Guerra's grammar of Nahuatl of Guadalajara (1692) the same form appears, <nitlapopolhuia>, also displaying the results of metathesis, unexpected in that area.

Rather than assuming that metathesis in these applicatives is a thing so natural that it can be expected to occur in all dialects sooner or later, I wish to suggest that the idea of forgiving was introduced by the Spanish conquerors in the 16th century. They saw to it that an appropriate term was created in the dialect of Tenochtitlan, which they met first. Subsequently the concept was propagated to other areas together with the new term that displayed the metathesis, characteristic of the area in which it was coined. So in Sierra de Puebla and in Jalisco, *po(h)polwia* 'forgive' must be considered an early (16th century) loanword from Classical Nahuatl.

C. Summary

In this chapter I have wanted to show that originally all applicatives were formed with the suffix *-lia* and to trace the history of those applicatives in Classical Nahuatl which on the surface appear to be formed with other suffixes. A metathesis of *wl* is crucial in the history of applicatives formed from verbs in *-oa*, but only in a small area around the Valley of Mexico. The exact boundaries of this area cannot be established for lack of data; however, its location and its narrow limits seem to show that the innovative metathesis originated in Tenochtitlan shortly before the conquest.

Applicatives from verbs in *-oa* vary a great deal in the dialects. The data available are presented, and the forms and their dialectology are discussed. The forms found in the more conservative dialects support the reconstructions made for Classical Nahuatl.

V. SEMANTIC CORRELATES TO *WA*, *NI*, AND *YA*

In Classical Nahuatl three groups of verbs can be recognized through their morphological characteristics. One of the three groups comprises intransitive/transitive verb pairs in *-wi/-oa* and intransitive/transitive verb pairs in *-wa/-wa;* these two types of verb pairs were discussed in chapter III where it was demonstrated that *-oa* comes from earlier *-V̄-wa*, and it was suggested that the two types form one group.

The following suffixes are characteristic of the verbs in the second of the three groups: *-ni* for the intransitives, *-na* or *-nia* for the transitives, *-ka* for the repetitive intransitives, and *-ȼa* for the repetitive transitives. The repetitives reduplicate the first syllable,

čipi:-ni	drip	intransitive
čipi:-nia	drip	transitive
či–čipi–ka	drip repeatedly	rep. intransitive
či–čipi–ȼa	drip repeatedly	rep. transitive

In the third group the intransitives have a suffix *-ya* and the transitives a suffix *-lia,*

šoko–ya	become sour
šoko–lia	make sour

The suffixes determining the three groups (1. WI/WA, 2. NI/NA, 3. YA/LIA) are sufficiently dissimilar to make a discussion of possible common origin unnecessary. The three sets of suffixes have always been different from each other, and they must be assumed to have or have had distinct functions or distinct meanings. They appear not to have been productive in Classical Nahuatl, and so their specific functions or meanings may well have been lost long before the time of Classical Nahuatl.

The material for this chapter is drawn almost exclusively from Classical Nahuatl; I have not investigated the semantics of these three groups of verbs in any modern dialect. The work with Classical Nahuatl on which the discussion is based, has consisted merely in excerpting the verbs in question from Molina's Nahuatl–Spanish dictionary and examining the resulting lists of verbs and particularly the accompanying lists of translations. The excerpted verbs are found in appendix organized in four sections called WI, WA, NI, and YA respectively (pages 161–75); Molina's translations are quoted in an index to appendix (pages 191–236).

Obviously, brief dictionary translations constitute unsatisfactory material for a semantic analysis, but then the main purpose of this chapter is only to introduce the possibility of a semantic treatment of these groups, and to point out that the verbs within each group share certain semantic features which are generally different from those characteristic of the verbs in the other two groups.

1. WI/WA. Verbs in this group mostly indicate something about the *surface, shape,* or *size* of some object. In the following the 129 verbs are organized according to their meaning: first are given those concerned with the surface of objects, from color to blemishes, to whatever may cover the surface, and to the actual structure or texture of the *surface* (37); secondly are ordered those verbs describing the *shape* of an object gradually moving over to *size* (56); following these we find eight verbs which indicate that something is being spread; and finally we have 27 verbs which do not readily fall into any of the preceding divisions. Precisely because this survey is based on nothing but dictionary translations, I refrain from sophistic interpretations of these last 27 translations which could be attempted in order to fit them into the impressionistically established divisions.

It is noteworthy that the four sole examples of verbs ending in *-wi* (at least optionally) but belonging in the WA subgroup are all among the verbs having to do with *spreading* (*čaya:wi* and *tepe:wi* 'be strewn', *moyawa/ moyawi* 'spread', *toyawa/toyawi* 'pour out (liquid)'. Furthermore, verbs from the subgroup WA are not distributed completely randomly in the semantic continuum; they are strongly represented in the sections pertaining to *color* and the simple descriptions of *shape* (thin, wide, thick, big, swell). This agrees well with the observation that verbs in subgroup WI often contain an affix which may have had a restrictive meaning (cf page 107).

Surface

become red	či:či:liwi	WI 8
become black	kapoɟawi	WI 17
	λi:liwi	WI 78
	λilewa	WA 27
become pale	istale:wa	WA 7
become ripe	kamawa	WA 9
	[kamilewa	MIS 63]
get black-and-blue marks	yapalewa	WA 35
become clean	čipa:wa	WA 5
become dirty	kaɟa:wa	WA 8
	λayiliwi	WI 77

be(come) stained	čičikawi	WI 6
	čiyawa	WA 6
become blemished	i:š-kʷikʷiliwi	WI 33
become moldy/rusty	poškawi	WI 65
get blight	šoyawi	WI 72
become smoky (covered w. soot)	počewa	WA 20
be scorched	čičina–	WI 9
be covered (w. plaster)	pepeči–	WI 55
become damp	kʷečawa	WA 13
become sticky	¢ika–	WI 3
	sa:liwi	WI 66
be(come) shiny	pe¢iwi	WI 53
slide/slip	pe¢kawi	WI 54
be slippery	ala–	WA 1
become hard	λakʷa:wa	WA 26
	tepi¢awi	WI 56
become hard/rough	wapa:wa	WA 34
be written	iʔkʷili–	WI 11
be scraped	momo¢a–	WI 40
become wrinkled	koločawi	WI 25
	pili(ča)wi	WI 58
	šoločawi	WI 71
be rubbed	matel–	WI 38
	šakʷal–	WI 68
be nicked/dented	tete-kʷinawi	WI 34
lose the crust	čipeliwi	WI 10
become full of ravines	komoliwi	WI 26

Shape, size

split	mašaliwi	WI 37
	šeliwi	WI 69
open	λapowi	WI 76
become bent/twisted	ilaka¢iwi	WI 12
	ko:liwi	WI 22
	čite-kol–	WI 23
	čittoliwi	WI 24

	k^{w}eliwi	WI 31
	–malakačiwi	WI 35
	noliwi	WI 47
	teȼiliwi	WI 80
	wi:to:liwi	WI 91
become crooked	čikol–	WI 7
be dislocated	patiliwi	WI 52
become pointed	yaka–wiȼa–	WI 89
become skinny	sisik^{w}iliwi	WI 67
become gutter-shaped	kopičawi	WI 27
be full-breasted	čičiwal–na–naȼiwi	WI 41
become round (cylindrical)	mimiliwi	WI 39
(circular)	yawaliwi	WI 92
become long and cylindrical	piya:si–	WI 61
roll up	kimil–	WI 21
become straight	mela–	WA 14
be gathered	nečika–	WI 43
	tekpičawi	WI 83
become united	nepani–	WI 46
become tense	–poȼa–	WI 62
become loose	kašawa	WA 11
	poša–	WI 64
become finely ground	k^{w}e:či–	WI 30
be crushed	paȼa–	WA 16
	i:š–kašiwi	WI 18
be damaged	iʔλakawi	WI 14
become narrow	ȼoliwi	WI 5
	titiča–	WI 87
become thin (board)	kana–	WA 10
(cylinder)	piȼawa	WA 19
(layer of clouds)	poyawa	WA 22
become wide (opening)	koyawa	WA 12
(table)	paλawa	WA 17
become thick	tilawa	WA 30
	toma:wa	WA 31
	teȼawa	WA 28
become big/strong	čamawa	WA 2
	čika:wa	WA 4
	λaʔpaliwi	WI 75

not grow	teȼoliwi	WI 81
become small	pisiliwi	WI 59
	tepito:niwi	WI 85
swell	posawa	WA 21
	sasamawa	WA 23
	šišipočawi	WI 70
be deflated	pa:ȼiwi	WI 48
shrink	kotoȼawi	WI 28
wither	keločawi	WI 20
collapse	pačiwi	WI 49

Spread

sprinkle	ȼeȼeliwi	WI 2
drizzle	pišawi	WI 60
hail	tesiwi	WI 86
be strewn	čaya:wi	WA 3
	tepe:wi	WA 29
spread	moyawa ⎫ moyawi ⎭	WA 15
overflow (grain)	peyawa	WA 18
pour out (liquid)	toyawa ⎫ toyawi ⎭	WA 33

Others

become numb	sepo:wa	WA 24
be paralyzed	kowasiwi	WI 29
	wakaliwi	WI 88
become sick	ȼipina–	WI 4
	λanawi	WI 74
become lazy	λaȼiwi	WI 73
become faint	soλa:wa	WA 25
tremble	wiwiša–	WI 90
be tickled	kekel–	WI 19
be hungry	teoʔsiwi	WI 8
suffer	to:ne:wa	WA 32
lose heart	k^weλašiwi	WI 32

become old	isoliwi	WI 13
become deaf	nakas–tapaliwi	WI 79
be sorry	teki–pačiwi	WI 82
become angry	mašaliwi	WI 37A
sin	awiliwi	WI 1
be said	iʔta–	WI 15
gulp	kampaši–	WI 16
be carried on shoulders	keč–pani–	WI 50
hang	pil–	WI 57
get lost	poliwi	WI 63
embrace	malkoča–	WI 36
be carried	napal–	WI 42
be negotiated	nek^{w}il–	WI 44
stir	iš–neliwi	WI 45
rise	weʔka–paniwi	WI 51

2. *NI.* Already Carochi noted that verbs in *–ni* have something to do with sound, "de ordinario significan algun ruido, que es diuersa segun la diuersidad de las cosas que le hazen. Otros significan quebrarse, o rebentar algunas cosas, y tambien ai diuersidad de verbos segun la diuersidad de las cosas quebradas, &c." (Car 1645.476).

Judging from the translations, more than sound and the act of breaking is involved in these verbs. Something like the action spreading out from a center seems to be indicated by many of the verbs. The 48 verbs found in appendix under NI are here listed according to their meaning, ordered so that we have at first actions directly involving *sound* (14), secondly actions of *breaking* or *destruction* (10), thirdly actions with a kind of *spreading* effect (18), and finally a few verbs which do not readily fit into the preceding classification (6).

Sound

ring	¢ili:ni/–ka	NI 4
	kala:ni/–ka	NI 14
jingle	košo:ni/–ka	NI 19
drip	čipi:ni/–ka	NI 12
clatter	kapa:ni/–ka	NI 15
growl	ki–kinaka	NI 17
	na–nalka	NI 27

bark	wa-walka	NI 47
become angry	kʷala:ni/-ka	NI 22
speak poorly	po-polo:ni/-ka	NI 34
splash	¢ikʷini	NI 3
	solo:ni/-ka	NI 37
explode	šit-tomoni	NI 40
	λa?¢i:ni	NI 41

Break

break	čala:ni/-ka	NI 9
	koto:ni/-ka	NI 20
	šama:ni/-ka	NI 38
	λapa:ni/-ka	NI 42
	tei:ni/-ka	NI 43
tear	¢aya:ni/-ka	NI 2
	¢omoni	NI 5
be dislocated	peto:ni	NI 31
fall apart	šiti:ni/-ka	NI 39
puncture	¢apinia	NI 1

Spreading from center

spark, chip	čito:ni/-ka	NI 13
burst, bud	kʷepo:ni/-ka	NI 23
form blisters	tomo:ni/-ka	NI 46
foam, boil	poso:ni/-ka	NI 35
swarm	yomoni/-ka	NI 48
	moyoni	
become wet	čakʷani/-ka	NI 8
	čapa:ni/-ka	NI 10
stink	poto:ni	NI 36
burn w. flames	kʷeλani/-ka	NI 24
catch fire	komo:ni/-ka	NI 18
	tekʷini/-ka	NI 44
pour forth	molo:ni/-ka	NI 26
pour out, lighten	peλa:ni/-ka	NI 30
shine	¢oλania/-ka	NI 6
	kʷeyoni/-ka	NI 25
	pe-peyoka	NI 32

| form a hole | koyoni | NI 21 |
| be(come) filled | pešoni | NI 29 |

Others

fry	¢oyoni/-ka	NI 7
hurt	či-činaka	NI 11
become loose	kašani	NI 16
fly	paλa:ni/-ka	NI 28
be crushed	pi¢ini	NI 33
become tight	tilini	NI 45

It is striking that about two thirds of the verbs in this group have the same vowel in the first and second syllable, either CiCi-, CaCa-, or CoCo-; and in more than half of those for which this is not true, the first vowel is *e*,

kʷepo:ni	burst, bud
kʷeyoni	shine
pešoni	be(come) filled
peλa:ni	pour out
pe-peyoka	shine
peto:ni	be dislocated
tei:ni	break
ki-kinaka	growl
λa?¢i:ni	explode
¢oλania	shine
čito:ni	spark, chip
¢apinia	be punctured

but then *e* is not found as the second vowel in any of these verbs. This points towards a rule assimilating or harmonizing the second vowel to or with the first, except when the first vowel is *e*, in which case the second vowel remains unchanged.

3. *YA*. Most of the verbs going into this group seem to share some semantic feature(s) dealing with *tastes*, *smells*, and some kind of *other sensation(s)*.

| become sweet | ¢ope:liya | YA 2 |
| be delicious | weli- | YA 20 |

become bitter	čičiya	YA 3
become salty	poye–	YA 10
become sour	šokoya	YA 13
emit fragrance	aʔwiya:ya	YA 1
stink	iʔya:ya	YA 7
become cold	se–se:ya	YA 12
	iȼtiya	YA 5
become warm	to–to:niya	YA 18
become lukewarm	yama:niya ⎫	
become soft	yamastiya ⎭	YA 21
become wet	paltiya	YA 9A
become heavy	etiya	YA 4
become sad	λao:koya	YA 15
become sick	kokoya	YA 8
ripen, turn yellow	kostiya	
	kosawiya	YA 9
become fresh, raw, green	šošo:wiya ⎫	
	šošoktiya ⎭	YA 14
become new	yankʷi–	YA 22
sprout	seliya	YA 11
grow big	we:iya	YA 19
	λapiwiya	YA 16
become white	istaya	YA 6
become red	λa–λawiya	YA 17

The forms not attested in Molina can be supplemented from various modern dialects. In North Puebla we find

we:liya	become delicious
yankʷiya	become new
iʔyalia	make stink
poyeya	become salty

In that dialect, *kokoya* means 'become "picante" ', cf Molina "cococ. cosa que quema y abrasa la boca asi como el axi, o pimienta &c."; and a new root has been added to the group, *iksiya* 'become cooked, done, ripe' — *iksik* 'cooked, done, ripe' which corresponds to the verb *ikʷsi* 'become cooked, done, ripe' in Classical Nahuatl.

For the sake of completeness it must be mentioned that the suffixes *–ya*, *–lia*, and *–k* for intransitive (inchoative), transitive (causative), and participial, respectively, are not restricted to this group of verbs. They are also found with verbs derived from nominal roots and there always with a ligature, *-ti*. In deriving verbs from nouns, they appear to be in competition with the simple suffixes *–ti* for intransitive and *–tia* for transitive. However, the two sets of suffixes may not be perfectly equivalent in meaning:

λa:ka–λ	man
λa:ka–*ti*	he is born, becomes a man
kal–li	house
mo–kal–*tia*	he makes a house for himself
te–λ	rock
te–ti–*ya*	it becomes hard, like a rock
ki–te–ti–*lia*	he makes it hard
te–ti–*k*	hard
mo–te–*tia*	it (a bird) lays eggs ("makes rocks for itself")

Generally it seems that *–ti* and *–tia* suffixed to a noun root (N) mean 'become N' and 'produce N for ___', respectively; whereas *–ti–ya* indicates 'acquire some quality of N' and *–ti–lia* 'give ___ some quality of N'.

4. Comparison of the three groups of verbs. So far I have discussed the three groups of verbs separately; but it is also necessary to look at the relationship between them. Since it must be assumed that the suffixes characteristic of the three groups have contributed to the meaning of the words, some overlap in the inventory of roots is to be expected; in other words, it seems likely that some roots will appear in more than one group, and the different meanings of two verbs with the same root may shed some light upon the meaning or function of the characteristic suffixes. In the following I list all the roots which appear in more than one of the three groups; the identification of the roots has been made on the basis of phonological similarity alone, and for NI verbs the second vowel has been included only where different from the first vowel because of the rule assimilating it to the first vowel.

	WI/WΛ		YΛ	
poy–	poškawi	become moldy	poye–	become salty
čiči–	čičikawi	become stained	čičiya	become bitter
ista–	istale:wa	become pale	istaya	become white
	NI		YΛ	
λap–	λapa:ni	break	λapiwiya	grow

	WI/WA		NI	
(či)čina-	čičina-	scorch	čičinaka	hurt
čipe-	čipeliwi	lose the crust	čipi:ni	drip
kapo-	kapoȼawi	become black	kapa:ni	clatter
kaši-	i:š-kašiwi	crush the eye	kašani	become loose
komo-	komoliwi	become full of ravines	komo:ni	catch fire
koto-	kotoȼawi	shrink	koto:ni	break
kʷeλa-	kʷeλašiwi	lose heart	kʷeλani	burn calmer
poli-	poliwi	become lost	po-polo:ni	speak poorly
λapo-	λapowi	open	λapa:na	break
kaša-	kašawa	become loose	kašani	become loose
koya-	koyawa	become wide	koyoni	form a hole
moya-	moyawa moyawi	spread	moyoni yomoni	swarm
paλa-	paλawa	become wide	paλa:ni	fly
piȼa-	piȼawa	become thin	piȼini	be crushed
posa-	posawa	swell	poso:ni	foam, boil
tila-	tilawa	become thick	tilini	become tight
toma-	toma:wa	become fat	tomo:ni	form blisters
toma-	toma:wa	become fat	šit-tomoni	explode

The results are here not impressive, in some cases it seems unlikely — judging by the meanings — that the two verbs should have the same root, λap- 'break' — 'grow', kapo- 'become black' — 'clatter'; but in other cases the meanings are definitely related, ista- 'become pale' — 'become white', posa- 'swell' — 'foam, boil'; but even though it may be possible to link the two meanings in most of the cases, no obvious pattern presents itself through these verbs, and no conclusions can be drawn from them concerning the meaning or function of the suffixes of the three groups.

At one point I hypothesized that the tripartition could be connected with our senses, thus WI/WA verbs cover that which we see, NI verbs direct themselves to our sense of hearing, and YA verbs account for the rest of our senses, taste, smell, hot, cold, heavy. However, the general characteristic of the semantics of NI verbs has to do with spreading out from a center or emission, be it of light (shine), sound (ring, clatter), or something else (ooze, catch fire, stink), but a change of focus could have taken place: sound is emitted and spreads, and so spreading could have become the basic characteristic of NI secondarily, or if *spreading* were the original content of NI, since sound is emitted and spreads, then roots having to do with sound were naturally included in this group.

The data, as presented, give no grounds for any conclusions. It is by no means clear what the meanings of the suffixes characterizing the three

groups of verbs are or have been. However, I am convinced that they represent some categorization in the cognitive structure which is not exploited in the better known Western European languages. In support of this view I wish to present a somewhat similar phenomenon in the Mayan language Mam (cf Canger 1969).

B. Mam

In Mam the situation is far more complicated than in Nahuatl; the morphology is more complex, and there is more overlap in terms of morphology between at least two of the three groups.

The group of verbs generally corresponding to Nahuatl WI/WA verbs is that of verbs traditionally called positionals; their characteristic morphology includes a suffix *-l* which indicates 'being___(in a position)', a suffix *-e:* indicating 'getting (into a position as ___', *-pəh* 'suddenly and involuntarily getting (into a position as)___', and *-baʔn* 'cause to get (into a position as)___',

čʔók–*l*–kə	it is piled (firewood)
ma kub čʔok–*é:*	it got piled
ma kub t–čʔok–*baʔn*	he piled it
čót–*l*–kə	he sits (fat person)
ma kub čot–*é:*	he sat down (fat person)
ma kub čót–pəh	he sat down suddenly and involuntarily (fat person)

Mam positionals have individual roots indicating all kinds of lying, sitting, and standing positions for all the everyday objects: lie like a ball, like a snake, like a piece of rope messily, like a rag, like a handful of mud, a puddle of blood, etc. One difference between the two languages is that Mam here places some emphasis on the aspect of *position* and *motion to position*, whereas Nahuatl only focuses on the process of acquiring the given property/quality, but if for the time being, we ignore this emphasis on position we find roots typically indicating the following properties among the Mam positionals,

bald	loose	rolled
chipped	messy (ab. hair)	rough
deflated	moldy	short
empty	naked	shrunk
fat	open	skinny
humpy	picked clean	small and fat
hung	piled	spread
knotty	pointed	steep
longer than wide	puckered	stretched out

swollen	torn	with legs apart
tall	twisted	with long neck
taut	unevenly long	with soot on
		with white hair

Since Nahuatl vocabulary is by no means as differentiated in terms of positions as that of Mam, Nahuatl does not include roots indicating sitting or lying among the WI/WA verbs, but in Mam any concept of sitting or lying involves something about the shape of the object or person that does the sitting or lying and therefore these — for us simple positionals — naturally pattern with the other properties in this group.

A second group of roots in Mam dealing with sound is less numerous than that of positionals and also less distinct in terms of morphology. The suffix -*č* is found on a restricted number of roots having to do with sound,

búkʔ–č	bump hollowly
híqʔ–č	rattle (in dying)
hók–č	sound of sliding gravel
húb–č	snap
nákʔ–č	squeak
tʔíq–č	laugh
tóq–č	crack (sound)
tó:q–ən	break
tóqʔ–č	sound of clapping hands
tóqʔ–l–kə	naked (positional)

A much more common formation with roots indicating sound is a reduplication in which the second consonant of the root and the root vowel are repeated following a suffixed indistinct vowel ə, thus $C_1 V_1 C_2 \rightarrow C_1 V_1 C_2 -əC_2 \acute{V}_1 -$. This form indicates a repetition of the sound,

| hiqʔ–əqʔí–n | laugh all the time |
| nakʔ–əkʔá–n | squeak repetitively |

The roots which occur with this reduplication mostly indicate sound, but there are also examples of *"spreading"* as with Nahuatl NI verbs,

Sound	*Spreading*
babble	become dark
clatter	become light
crackle	break easily
flutter	dangle
squeak	flash
stammer	flow

talk much	grope
thunder	shine
	shrink

A number of roots classified as positionals — on the basis of their morphology — are also found with this reduplication, but in many cases they will then indicate something with sound,

tʔáb-l-kə	without teeth
tʔab-əbá-n	stammer
wók?-l-kə	empty
wok?-əkó-n	rumble

The morphological characteristic of Mam verbs corresponding to Nahuatl YA verbs is also a suffixed reduplication consisting of only the first root consonant followed by h, $C_1 V_1 (C_2) \rightarrow C_1 \acute{V}_1 (C_2)\text{-}C_1 h$, in some cases an indistinct vowel is inserted between the reduplicated consonant and h, $C_1 \acute{V}_1 (C_2)\text{-}C_1 \text{ə} h$. The following list exhausts the roots which go into this group,

kʔó:-kʔh	smell good
qʔún-qʔh	fetid
çʔín-çʔh	smell of horse urine, burnt eggs, and incense
qá-qh	taste of lime
çúb-çh	good
mé:qʔ-məh	warm
qʔúl-qʔəh	lukewarm
k^yʔíṣ-k^yʔəh	hurt
çín-ch	dangerous
sá:-sh	light (about weight)
sá:-ṣh	thin
mú:-mh	sheltered
qʔáh-qʔəh	audible

C. Conclusion

Partly due to the greater complexity and lesser regularity in Mam, this presentation has been even more impressionistic and tentative than that of the corresponding groups of verbs in Nahuatl, and generally the case is also less obvious in Mam. However, the similarities in categorization in these two unrelated languages are strong enough to make the semantics of the three groups in both languages worthy of a serious investigation. Considering that this suggested but undefined semantic categorization could be an areal feature, a search for related categorizations in other Meso-American languages is required.

APPENDIX

This appendix includes all the verbal roots contained in Alonso de Molina's Vocabvlario en lengva mexicana y castellana, 1571. The decision to restrict the material here included to forms found in Molina's dictionary is arbitrary and unsatisfactory; many widely attested forms are thereby left out. However, for purely practical purposes I have found it appropriate to establish certain delimitations of sources at the very outset and could think of no other realistic and natural solution to this problem. Obviously it is the ideal that all relevant forms from Molina are included; no doubt, I have overlooked some, but have no idea what percentage.

The forms excerpted from the dictionary for this appendix comprise simple verbs, verbs derived from simple verbs, and participial forms. Generally, reduplicated forms of unreduplicated verbs found in the dictionary are not included here.

The roots are divided into seven groups based on canonical, morphological, and a few vague intuitive arguments which will be stated below for each group separately. These seven groups are named according to some basic characteristic of their verbs, CVCV, WI, WA, OA, NI, YA, and MIS.

The many forms are organized according to their root, thus ideally there is only one entry for each root, and the possible number of forms found under each entry depends upon the group in which the entry occurs (there are six possible forms per entry in the NI-group and only three possible forms per entry in the YA-group), whereas the number of forms actually occurring in a given entry depends entirely on Molina since only forms found in Molina are included here. The possible forms set up for each of the seven groups will also be stated below.

The present classification of Nahuatl verb roots represents only a first and suggestive analysis of the situation. In general, the decision to lump together certain given forms under one entry has been conservative. As work with the appendix proceeded, inconsistencies and insufficiencies appeared; some of these have been remedied, but many others still remain. It is included in the book because, in spite of all its deficiencies, I find it useful in so many ways and wish to offer it as a practical tool to others working with Nahuatl.

In spite of the fairly consistent arguments for the classification, it is not always easy to locate some given form immediately. Partly because of this difficulty, an index of all the forms — not only the roots — found in this

appendix follows. The index includes each form as cited in the appendix and the same form in Molina's orthography accompanied by (one of) his translations. It is furthermore specified to which group (CVCV, WA, etc.) and to which entry (1, 2, 3, etc.) the given form belongs.

In the appendix it is indicated for each entry whether some form of the entry occurs in Carochi's grammar (cf Adrian et al. 1976): the symbol □ means that no form of a thus marked entry occurs in Carochi's grammar. In the unmarked entries at least one form must occur in Carochi, and ʔ and long vowels are included in the forms according to his indications. For example □ *ɉaw–a* implies that no form of this verb occurs in Carochi, and possible ʔ and long vowels are in this entry therefore not indicated; and the lack of □ in *ak–i* shows that some form of this entry does occur in Carochi, and for this form it is thereby positively indicated that it includes no glottal stop and that the *a*, for example, is a short vowel. Usually, vowels are marked long in agreement with forms found in Carochi, rather than according to some general rules such as: any vowel preceding the suffix *–ni* is long.

One English translation is given for the left most (the simplest ?) form of each entry. For these translations I have tried to identify some basic meaning pertaining to the root, but they can be checked with Molina's translations included in the index.

CVCV
Basically the simple verbs in this group can be characterized as including no derivational suffix; and since these verbs typically have the shape CVCV, that is how they are named. Also included are verbs of the following shapes: V, CV, VCV, and VCCV; the last shape has been explained by Campbell and Langacker (1978) as the result of a metathesis, and it represents previous CVCV. Glottal stop is here not taken into consideration, thus *ɉaʔɉi, paʔti*, etc. are included in this group. In addition to the types mentioned, verbs with initial *iʔ–* or *i–*, for example *iʔɉom–a, ikop–i*, etc. are entered here. Also included are some verbs with an inseparable reduplication, for example *ɉoɉon–a. wi:ɉ* 'come' is listed in this group, but *yaw* 'go' is not included in the appendix at all.

In the CVCV group as well as in the other six groups, the perfect is indicated for all verbs except those ending in *–ia* and *–oa;* a hyphen before the last vowel specifies that that vowel is dropped in the perfect; for verbs which from a synchronic point of view suffix *–k* or *–ʔ* to the present, the *k* or *ʔ* is enclosed in parentheses, and for a few verbs which have two variant perfect forms, both are indicated, for example, *iʔiy(–)a(–k)* has in the perfect *iʔiy* [iʔis] or *iʔiyak*.

Since the simple verbs in this group are not all either transitive or intransitive, their transitivity is stated.

The three additional columns of forms here entered should be self-explanatory.

WI

Typically the entries in WI include

an intransitive (inchoative) in	-Vwi
a causative in	-oa
an applicative in	-lwia
a participial form in	-ki

In addition some have variant forms, for the intransitive in *-tiya*, for the causative in *-tilia*, and for the participial in *-tik*.

Minimally the entries include any two of the four first mentioned forms. Roots which occur only with a form in *-oa* are found in the OA-group, and those with only the intransitive in *-wi* are located in the MIS-group.

By definition (page 30 and 103) all verbs in *-oa* form their perfect in *-o?*.

In WI all the verbs in the left most column are intransitives. For some entries no intransitive verb form is found in Molina, and only a stem is then entered here, for example, *ɗipina-*, etc. However, the English translation refers to the intransitive verb form also in entries where no actual form occurs.

WA

Typically the entries in WA include:

an intransitive (inchoative) in	-V:wa(-k)
a causative in	-V:w-a
an applicative in	-V:wilia
a participial form in	V:wak

In addition some entries have variant forms, for the intransitive in *-tiya*, for the transitive in *-tilia*, and for the participial form in *-Vktik*.

Minimally the entries include any two of the first mentioned four forms. Two entries do not quite follow the pattern, *čaya:wi* and *tepe:wi* have final *i* in the intransitive verb instead of the expected final *a*. Two other entries have such intransitives as variant forms, *mo-moyawa(-k)* ~ *mo-moyaw-i* and *toyawa(-k)* ~ *toyaw-i*.

The following verbs which from a semantic and a morphological point of view all seem to belong in this group have been relegated to the MIS-group due to "insufficient morphological qualifications":

☐ a(i)sʌaw-a	tr	dress one's hair
☐ ten-ɗikᵂew-a	tr	chip
☐ kamilewa(-k)	intr	get ripe
☐ kᵂa-kayawa(-k)	intr	get plucked
☐ iskolew-a	tr	detach
☐ molew-a	tr	make soft

□	peλaw–a	tr	shine
□	pinew(–k)	intr	get pale w. cold
□	sepo:w–a	tr	crush
□	siyaw–a	tr	make wet
□	sonew–a	tr	make excited, fluffy
□	šolew–a	refl	scratch oneself
□	tošaw–a	tr	pour (wheat etc.)
□	yopew–a	tr	detach

In WA all the verbs in the left most column are intransitives. For some entries no intransitive verb is found in Molina, and only a stem is then entered here, for example, *ala-*, *mela-*. However, the English translation refers to the intransitive verb form also in entries where no actual form occurs.

NI

Typically the entries in NI comprise the following forms:

an intransitive in	–ni
a causative in	–na ~ –nia
an applicative in	–ni–lia
an intransitive repetitive in	$C_1 V_1 - \ldots -ka$
a causative repetitive in	$C_1 V_1 - \ldots -\cancel{c}a$
a participial form in	–ki

In addition some have variant forms in *–(l)tia* for the transitive and in *–tik* for the participial form.

Minimally the entries include 1) the simple intransitive and the causative, in *–ni* and in *–na* ~ *–nia*, 2) the two repetitives, $C_1 V_1 - \ldots -ka$ and $C_1 V_1 - \ldots -\cancel{c}a$, or 3) any one of the two simple verbs *and* any one of the two repetitives, *–ni* and *–ka*; *–ni* and *–ȼa*; *–na* ~ *–nia* and *–ka*; or *–na* ~ *–nia* and *ȼa*.

The following verbs seem to belong to this group from a semantic and morphological point of view, but they have been relegated to the MIS-group due to "insufficient morphological qualifications":

ȼaȼanaȼa	tr	rustle
nanaȼka	intr	creak
pipiȼka	intr	squeak
sasawaka	intr	be hoarse

YA

Typically the entries in YA include only three forms:

an intransitive (inchoative) in	–ya
a causative in	–lia
a participial form in	–k

In some cases, the participial form ends in *-ki* because the stem final vowel must have dropped before the final *i* in *ki* dropped (cf page 108).

Minimally the entries include any two of the three mentioned forms.

OA
In OA are gathered all roots which have an intransitive or a transitive verb form in *-oa* not included in the WI-group. The three additional columns are the same as in groups WI and WA and here poorly represented.

MIS
MIS stands for miscellany, in fact verbs which do not fit into any of the previous groups have been entered here.

The transitivity of the verbs in the first column is specified, and the three following columns should be self-explanatory.

Within each group and in the appendix, the entries are listed alphabetically according to the following order: a, ¢, č, e, i, k, k^w, m, n, o, p, s, š, λ, t, w, y.

	simple form	tr/intr	gloss	causative	applicative	participial
1.	ak-i	intr	*be inside*	akia akitia		
2.	a:m-i	intr	*hunt*		a:milia	a:nki a:mini
3.	a:n-a	tr/refl	*seize*			m-a:nki
4.	a?si(-k)	intr/tr	*reach*	a?siltia	a?silia	
5.	a?wa(-k)	tr	*scold*			
6.	ay-i	tr	*do*			
7.	¢a?¢i(-k)	intr	*cry out*	¢a?¢itia	¢a?¢ilia	¢a?¢ini
8.	¢ak^w-a ¢ak^wia	tr tr	*close* *be the last*	¢ak^wiltia	¢ak^wilia	
9. □	¢aw-a	intr	*spin thread*			¢awki ¢awani
	¢om-a cf i?¢om-a					
10.	¢o¢on-a	tr	*beat*			
11.	¢op-i	intr	*become finished*	¢op-a		¢opki
12.	ci?ca(-k)	intr	*spit*			
13.	ci:či(-k)	intr	*suck*	ci:čitia		ci:čini
13A.	ci?ci(-k)	tr	*repair* (garment)			tla-ci?cini
14. □	čik-i	tr	*scrape*			
15. □	cicin-a	tr	*suck*			
16.	ci:w-a	tr	*make*			λa-ci:wani te:-či:wani

17.	či:y-a	tr	*await*	či:yaltia	či:yalia	te:-či:yani
18.	čo:ka(-k)	intr	*weep*	čo:ktia	čo:kilia	čo:kani
19.	e:w-a	intr/refl	*rise*	e:waltia e:wi:tia	e:watilia	m-e:wki
20.	i:(-k)	tr	*drink*	i:tia		λa-i:ni
21.	iʔȼom-a	tr	*sew*		iʔȼomia	λa-ʔȼonki λa-ʔȼomani
22.	iʔiy(-)a(-k)	tr	*hate*			λa-iʔiyani
23.	iʔka-k	intr	*stand*			
24.	iʔkal-i	tr	*fight*			
25.	□ ikit-i	intr	*weave*			ikitki ikitini
26.	□ ikop-i	intr	*close the eyes*		ikopilwia	
27.	iksa(-k)	tr	*tread on*			
28.	□ ikʷiy-a (cf CVCV 64)	tr	*tie around*			
29.	ikʷsi(-k)	intr	*become tender*			
30.	□ ilak-i	intr	*sink* (in water)	ilaktia		ilakki
31.	□ inam-a	tr	*recover debt from*			
32.	iʔnekʷ-i	tr	*smell*			
33.	□ iʔne:w-a	tr	*miss, mistake*		iʔne:wia	
34.	□ ipoȼ-a	refl	*belch*			
35.	iʔsa(-k)	intr	*wake up*	iʔsitia		
36.	□ isek-i	tr	*toast* (corn)			

	simple form	tr/intr	gloss	causative	applicative	participial
37.	iʔsika(-k)	intr	*pant*			
38.	iʔsiw-i	intr	*hurry*	iʔsiwitia		iʔsiwki iʔsiwini
39.	□ iso:λa(-k)	refl	*vomit*			
40.	□ isil-i	tr	*prick*			
41.	iška(-k)	tr	*roast*		iškia (refl)	
42.	iswa(-k)	intr	*sprout*			
43.	iswi(-k)	intr	*become satiated*	iswia iswitia		iswik
44.	iʔλan-i	tr	*ask for*		iʔλanilia	
45.	itki(-k)	tr	*take*	itkitia		
46.	itta(-k)	tr	*see*	ittitia		
47.	iwa(-ʔ)	tr	*send*			
48.	□ iyan-a	tr	*hide* (cf MIS 43)		iyanilia	
49.	□ iyaw-a	tr	*sacrifice*		iyawilia	
50.	□ iyeš-i	refl	*fart*			
51.	kak-i	tr	*hear*	kaki:tia	kakilia	
52.	ka:w-a	tr	*leave*	ka:waltia	ka:wia	
53.	keȼ-a	tr/refl	*stand up*		kecilia	
54.	ke:m-i	tr	*put on clothes*	ke:ntia		
55.	□ kekes-a	tr	*stamp on*		kekešilia	
56.	ki:s-a	intr	*go out*	ki:štia		ki:sani

57.	koč–i	intr	*sleep*	kočitia		kočki
						kočini
58.	ko:w–a	tr	*buy*		ko:wilia	
					ko:wia (refl)	
59.	kʷa(–ʔ)	tr	*eat*	kʷaltia		λa–kʷa:ni
60.	□ waw–kʷem–a	"intr"	*sow amaranthus*			
61.	kʷep–a	tr	*return*	kʷepiltia	kʷepilia	
						λa–kʷepani
62.	kʷi:(–k)	tr	*seize*		kʷi:lia	
63.	kʷi:ka(–k)	intr	*sing*	kʷi:katia		kʷi:kani
64.	(te)kʷiy(–)a(–k) (cf CVCV 28)	tr	*wrap*			
65.	ma(–ʔ)	tr	*hunt*		ma:lia	
					ma:ltia	
66.	maka(–k)	tr	*give*			
67.	mamal–i	tr	*drill*			
68.	ma:ma(–ʔ) meme(–ʔ)	tr	*carry*	ma:maltia		
69.	man–i	intr	*be placed*	man–a	manilia	
70.	mat–i	tr	*know*	mačtia mačitia	mačilia	λa–matki λa–matini
71.	□ maw–a (cf WA 15)	tr	*infect, spread*			te:–mawani
72.	maw–i	intr	*be afraid*	mawtia		mawki
73.	□ mey–a	intr	*pour forth*			

	simple form	tr/intr	gloss	causative	applicative	participial
74.	mik-i	intr	*die*	miktia		mikki mikini mikkeλ
75.	mi:n-a	tr	*shoot arrow*			λa-mi:nki λa-mi:nani
76.	mo:λa(-k)	tr	*throw* (rock)			
77.	□ nan-a	intr	*abstain from* (cf a:na ?)			
78.	nek-i	tr	*want*	nektia	nekilia nekiltia	
79.	nem-i	intr	*live*	nemi:tia	nemilia	nenki nemini
80.	ne:s-i	intr	*appear*	ne:štia	ne:štilia	
81.	no:ȼ-a	tr	*call*		no:čilia	
82.	on-o-k	intr	*lie*			
83.	□ osa(-k)	tr	*anoint, smear*			
84.	o:y-a	tr	*shell* (corn etc.)			
85.	pa(-ʔ)	tr	*color*			λa-paʔki
86.	pa:k(-)a(-k)	tr	*wash*			λa-pa:kani
87.	pa:k-i	intr	*be happy*	pa:k-i pa:ktia		pa:kki pa:kini
88.	pano(-k)	intr	*pass*	panawia panawiltia		panoni
89.	paλa(-k)	tr	*(ex)change*			

90.	pa:t-i	intr	*melt*	pa:λa(-k)		
91.	pa?ti(-k)	intr	*get well*	pa?tia		pa?tik
						pa?tini
92.	pe?pen-a	tr	*pick up*			
93. □	peλa(-k)	tr	*pierce, split*			
	pe-peλa(-k)	tr	*comb*			
94.	pe:w-a	intr/tr	*start*	pe:wia		pe:wki
				pe:waltia		
95.	pi(-k)	tr	*pluck*			
96.	pi:¢-a	tr	*blow* (instrument)			λa-pi:¢ki
	(cf OA 34)					
97. □	pipika(-k)	intr	*drip*			
98.	pi:k-i	tr	*invent* (?)	pi:kia		λa-pi:kini
99. □	pipin-a	tr	*suck, eat sugar cane*			
100.	piy-a	tr	*guard*	piyaltia	piyalia	λa-piski
101.	popo:ka(-k)	intr	*smoke*			popo:kani
						λa-popo:¢ani
102.	popo:w-a	tr	*clean*			
103.	po:w-i	intr	*count*	po:w-a	po:wilia	λa-po:wki
				po:wia		
104.	saka(-k)	tr	*transport*			
105.	saw-a	refl	*fast*			
	oomi-saw-i	intr	*become*	omi-sawitia		omi-sawki
	(cf MIS 112)		*"bone-skinny"*			
106. □	sek^w-i	intr	*feel cold*			

	simple form	tr/intr	gloss	causative	applicative	participial
107.		se:wa(-k)	intr	*be cold* (weather)			
108.		se:w-i	intr	*calm down*	se:wia		se:wki
109.		sey-a siy-a	intr	*agree*	siyaltia		seyani
110.	□	sim-a (cf šim-a)	tr	*scrape* (maguey)			
111.		so(-k)	tr	*prick, pierce*			
112.		so:ma(-ʔ)	refl	*frown*			
113.	□	sow-a	tr	*unfold*		sowilia	
114.	□	šaw-a	tr	*paint*			šawki
115.		siʔšil-i	tr	*stamp, pack*			
116.	□	šim-a	tr	*shave*			
117.	□	šin-i	intr	*fall apart*	šišinia	šišinilia	šišinki
118.		šiš-a	refl	*defecate*			
119.		šo:š-a šo:šwia	tr	*cast a spell on*			te:-šo:ški
120.	□	šoλa(-k)	tr	*cut lengthwise*			
121.		šo:λa(-k)	intr	*catch fire, flower*	šo:λaltia		šo:λak
122.		λam-i	intr	*be finished*	λamia λamiltia		λanki
123.		λa:n-i	tr	*win over*			
124.		λa:s-a	tr	*throw*	λa:saltia	λa:šilia	
125.		λaλas-i	intr	*cough*			

126.	λaλa(-k)	intr	*burn*	λatia	λatilia	λaλak
127.	λeʔko(-k)	intr	*go up*	λeʔkawia λeʔkoltia		
128.	te:ka(-k)	tr	*put down*			
129.	tek-i	tr	*cut*			
130.	te:m-a	tr	*put down* (corn etc.)			
131.	tem-a	tr	*bathe in temazcal*			
132.	□ tem-i	intr	*be full*	temitia		tenki
133.	temo(-k)	intr	*go down*	temowia		
134.	□ tena(-k)	intr	*complain*			tenani
135.	tes-i	intr	*grind*	testilia tesolowia		teski tesini testik
136.	toto:ka-(k) (cf MIS 216)	intr	*hurry*	toto:¢-a	toto:kilia toto:čilia	toto:kani
137.	toka(-k)	tr	*follow*	toktia	tokilia	
138.	to:ka(-k)	tr	*bury*			
139.	□ a:-toko(-k)	intr	*be carried away by river*	a:toktia		
140.	tom-i	intr	*become loose*	tom-a	tomilia	
	□ wi-tom-i	intr	*crumble, fall in*	witom-a	witomilia	
141.	to:na(-k)	intr	*be sunny, warm*			
142.	wa:k-i	intr	*dry*	wa:¢-a wa:kiltia		wa:kki
143.	□ wawan-a	tr	*scratch*			λa-wawanki

	simple form	tr/intr	gloss	causative	applicative	participial
144.	weȼ-i	intr	*fall*	weȼitia		weȼki weȼini
145.	wi:ȼ	intr	*come*			
146.	wi:ka(-k)	tr	*accompany*	wi:kaltia		
147. □	wiwiλa(-k)	tr	*pluck* (bird)			λa-wiwiλani
148.	-yaw-i	intr	*rain*			
149. □	yew-a	tr	*beg*		λa-yewia (refl)	
150.	yo:l-i	intr	*live*	yo:litia		
151. □	yom-a	refl	*make copulatory movements* (woman)			
152.	(λa)yowa(-k) (cf MIS 178 and 232)	intr	*turn dark*			

	intransitive	gloss	causative	applicative	participial
1.	□ awiliw-i	*sin*	awiloa awiltia	awilwia	
2.	□ ȼeȼeliw-i	*sprinkle*	ȼeȼeloa	ȼeȼelwia	
3.	ȼika-	*stick, be detained*	ȼikoa ȼikoltilia ȼikololtia	ȼikalwia	ȼikawki
	(cf MIS 71)		ȼi:-ȼkia ȼi-ȼi:ka ȼi-ȼiȼ-a	ȼi:ȼkilia	
4.	□ ȼipina-	*become sick*	ȼipinoa	ȼipinalwia	
5.	ȼoliw-i (cf WI 81)	*become narrow*	ȼoloa		ȼoltik
6.	□ čičikaw-i	*become stained*	čičikoa čičiktilia		čičikawki čičiktik
7.	□ čikol-	*become crooked*	čikoloa	čikolwia	čikoltik
8.	či:či:liw-i či:či:ltiya(-k)	*become red*	či:či:loa		či:či:liwki či:čiltik
9.	□ či-čina-	*be scorched*	(či)činoa	(či)činalwia	
10.	□ čipeliw-i	*lose the crust*	čipeloa	čipelwia	čičipeliwki iičpeliwki
	čittoliw-i cf WI 24				
11.	iʔkʷil-	*be written*	iʔkʷiloa	iʔkʷilwia	
12.	ilakaȼiw-i	*be(come) twisted*	ilakaȼoa		ilakaȼiwki ilakaȼtik
13.	□ isoliw-i	*become old (clothes etc.)*	isoloa	isolwia	isoliwki isoltik

	intransitive	gloss	causative	applicative	participial
	iskašiwi cf –kašiwi				
14.	iʔλakaw–i	*be damaged*	iʔλakoa	iʔλakalwia	iʔλakawki
15.	iʔta–	*be said*	iʔtoa	iʔtalwia	
16.	kampaši–	*gulp*	kampašoa	kampašilwia	
17.	☐ kapoȼaw–i	*become black*			kapoȼawki kapoȼtik
18.	☐ i:š–kašiw–i	*crush the eye*	i:škašoa		
19.	☐ kekel–	*be tickled*	kekeloa	kekelwia	
20.	☐ keloȼaw–i	*wither*			keloȼawki
21.	☐ kimil–	*roll up*	kimiloa	kimilwia	
22.	ko:liw–i	*be bent*	koloa	kolwia	koliwki koltik
23.	☐ čite–kol–	*be bent*	čite–koloa	čite–kolwia	
24.	☐ čittoliw–i	*be(come) twisted*	čittoloa		čitoliwki
25.	☐ koloȼaw–i	*become wrinkled*	ko–koloȼoa		ko–koloȼtik
26.	☐ komoliw–i	*become full of ravines*	komoloa		kokomoltik
27.	☐ kopiȼaw–i	*become gutter-shaped*	ma–kopiȼoa		kopiȼtik
28.	☐ kotoȼaw–i	*stiffen*	kotoȼoa	kotoȼalwia	ko–kotoȼawki kotoȼtik
29.	☐ kowasiw–i	*be paralyzed*			kowasiwki

30.	kʷeːči-	become finely ground	(te-)kʷeːčoa	te-kʷeːčilwia	
			kʷeːčtilia		kʷečtik
31.	□ kʷeliw-i	be bent	kʷeloa		
32.	□ kʷeλašiw-i	lose heart	kʷeλašoa		kʷeλašiwki
					kʷeλašiwini
33.	□ iːš-kʷikʷiliw-i	become blemished	iːškʷikʷiloa		iːškʷikʷiliwki
34.	□ tete-kʷinaw-i	be nicked, dented	-tetekʷinoa		tetekʷinawki
					tetekʷintik
35.	yoːl-malakačiw-i	be(come) wound	malakačoa		
36.	□ malkoča-	embrace	ma(l)kočoa	malkočalwia	
37.	□ mašaliw-i	split	mašaloa	mašalwia	
	(cf WI 69)				mašaltik
37A.	□ mašaliw-i	become angry	mašaloa		mašaliwini
38.	□ matel-	be rubbed	mateloa	matelwia	
			matiloa		
39.	mimiliw-i	become round	mimiloa		mimiliwki
					mimiltik
40.	momoɸa-	be scraped	momoɸoa	momoɸalwia	
41.	□ čičiwal-nanaɸiw-i	be full-breasted	nanaɸoa refl become fat		
42.	□ napal-	be carried	napaloa	napalwia	
43.	□ nečika-	be gathered	nečikoa	nečikalwia	
				nečikoltia	
44.	□ nekʷil-	be negotiated	nekʷiloa	nekʷilwia	
45.	iš-neliw-i	be mixed (up)	neloa	nelwia	iš-neliwki
46.	nepani-	become united	nepanoa	nepanilwia	

	intransitive	gloss	causative	applicative	participial
47.	□ noliw-i	*become twisted*	noloa	nolwia	noliwki
					noltik
48.	pa:ȼiw-i	*be deflated*	pa:ȼoa		pa:ȼiwki
					pa:ȼtik
49.	paċiw-i	*collapse*	paċoa	paċilwia	
50.	□ keċ-pani-	*be carried on shoulders*	keċ-panoa	keċ-panilwia	
51.	□ weʔka-paniw-i	*rise*	weʔka-panoa	weʔka-panilwia	weʔka-paniwki
52.	□ patiliw-i	*be dislocated*			patiliwki
53.	□ peȼiw-i	*be(come) shiny*	peȼoa	peȼilwia	
	peȼtiya(-k)				pe-peȼtik
	pe-peȼka(-k)				ši-peȼtik
54.	□ peȼkaw-i	*slide, slip*	peȼkoa	ma-peȼkolwia	
55.	pepeċi-	*be covered*	pepeċoa	pepeċilwia	
56.	□ te-piȼaw-i	*become hard*	te-piȼoa	te-piȼalwia	
	te-piȼtiya(-k)		te-piȼtilia		te-piȼtik
57.	pil-	*hang*	piloa	pilwia	
58.	□ piliw-i	*become wrinkled*			
	piliċaw-i		piliċoa		piliċawki
	piliċwak-i				piliċawini
					piliċwakki
					piliċwakini
59.	□ pisiliw-i	*become small*	pisiloa		
					pisiltik
60.	□ pišaw-i	*drizzle*	pišoa	pišalwia	

61.	piya:siw-	*become long and cylindrical*	piya:soa		piyastik
62.	□ -poȼa-	*become tense*	-poȼoa	-poȼalwia	
63.	poliw-i	*become lost*	poloa	polwia popolwia popolwilia pololtia	poliwki poliwini
64.	□ pošа-	*become loose*	popošoa	popošalwia pošawilia	pošawak pošaktik
65.	□ poškaw-i	*become moldy, rusty*			poškawki
66.	sa:liw-i	*stick*	sa:loa	sa-sa:lwia	sa-sa:lik sa-saltik
67.	sisikʷiliw-i sisikʷiltiy-a	*become skinny*	sisikʷiloa sisikʷiltia		sisikʷiliwki sisikʷiltik
68.	□ sakʷal-	*be rubbed, kneaded*	sakʷaloa sakʷaltilia	tesakʷalwia	
69.	šeliw-i (cf WI 37)	*split*	šeloa	šelwia	šeliwki šeliwini
70.	□ ši-šipočaw-i	*swell*	ši-šipočoa šipočew-a	ši-šipočalwia	ši-šipočtik
71.	□ soločaw-i	*become wrinkled*	soločoa	soločalwia	soločtik
72.	□ šoyaw-i	*get blight*			šoyawki
73.	λaȼiw-i	*become lazy*		λaȼilwia	λaȼiwki λaȼiwini
74.	λanaw-i	*be very sick*	λanawitia	λanalwia	λanawki

	intransitive	gloss	causative	applicative	participial
75.	λaʔpaliw–i	*become strong, adult*	λaʔpaloa *greet* λaʔpaltilia	λaʔpalwia	λaʔpaltik
76.	λapow–i	*open*	λapoa		λapowki
77.	□ λayiliw–i	*become dirty*	λayiloa		
78.	λi:liw–i λi:ltiya(–k)	*become black*	λi:loa	λi:lwia	λi:liwki λiltik
79.	□ nakas–tapaliw–i	*become deaf*	nakas–tapaloa nakas–tapaltilia		nakas–tapaltik
80.	□ teȼiliw–i	*be(come) twisted*	teȼiloa	teȼilwia	
81.	□ teȼoliw–i teȼoti(–k) teȼolak–i (cf WI 5)	*not grow*	teȼotilia		teȼoliwki teȼoltik teȼotik teȼotki teȼolakki
82.	tekipačiw–i	*be sorry*	tekipačoa	tekipačilwia	
83.	□ tekpičaw–i	*gather*	tekpičoa	tekpičalwia	
84.	teoʔsiw–i tr/intr	*be hungry* (for)			teoʔsiwki teoʔsiwini
85.	tepito:niw–i	*become small*	tepito:noa tepitilia		tepito:n
86.	tesiw–i	*hail*		te–tesilwia *shave someone's head*	
87.	□ titiča–	*become narrow*	titičoa	titičalwia	titičawki titičtik
88.	□ wakaliw–i	*be paralyzed*			wakaliwki

89. □ yaka-wiɖa-	*become pointed*	yaka-wiɖoa		yaka-wiɖawki yaka-wiɖtik
90. □ wiwiśa- wiwiśka(-k) wiwiyoka(-k)	*tremble*	wiwiśoa wiwiśkatilia wiwiyokiltia	wiwiśalwia	wiwiśki
91. wi:to:liw-i	*bend*	wi:to:loa		wi:to:liwki
92. yawaliw-i	*become round*	yawaloa	yawalwia	yawaliwki yawaltik
93. ye:kaw-i	*be completed*	ye:koa		ye:kawki

	intransitive	gloss	causative	applicative	participial
1.	☐ ala-	*be slippery*	alaw-a		alawak alaktik alastik
2.	☐ čamawa(-k)	*grow, get big*	čamaw-a		čamawak čamaktik
3.	čaya:w-i	*be strewn*	čaya:w-a		čaya:wak ča-čayawki
4.	čika:wa(-k)	*become strong*	čika:w-a		čika:wak čikaktik
5.	čipa:wa(-k)	*become clean*	čipa:w-a		čipa:wak či-čipaktik
6.	☐ čiyawa(-k)	*be(come) stained*	čiyaw-a		čiyawak čiyaktik
7.	istale:wa(-k)	*become pale*			istale:wak istalektik
8.	kaḍa:w(-)a(-k) kaḍaktiy(-)a(-k)	*become dirty*	kaḍa:w-a kaḍaktilia		kaḍa:wak kaḍaktik
9.	☐ kamawa(-k)	*ripen* (?)			kamawak kamaktik
10.	☐ kana-	*become thin*	kanaw-a		kanawak kanaktik
11.	☐ kašawa(-k)	*become loose*	kašaw-a	kašawilia	ka-kašaktik ka-kašaltik
12.	☐ koyawa(-k)	*become wide*	koyaw-a		koyawak

13.	□ k^wečawa(-k)	*become damp*	k^wečaw-a		k^wečawak k^wečaktik
14.	mela-	*become straight*	melaw-a	melawilia	melawak melaktik melastik
15.	□ (mo-)moyawa(-k) mo-moyaw-i (cf CVCV 71)	*spread*	(mo-)moyaw-a		mo-moyawki moyaktik
16.	paȼa-	*be crushed*	paȼaw-a		paȼawak paȼaktik
17.	□ paλawa(-k)	*become wide*	paλaw-a		paλawak paλačtik
18.	□ peyawa(-k)	*overflow* (wheat etc.)	pe-peyaw-a		(pe)peyawak peyaktik
19.	piȼawa(-k)	*become thin*	piȼaw-a		piȼawak piȼawki piȼaktik
20.	□ počewa(-k) počektiya(-k)	*become smoky*	počew-a počektilia		počewak počektik
21.	posawa(-k)	*swell*	posaw-a		posawak posaktik
22.	poyawa(-k) (poyawi ?)	*become thin* (clouds)	poyaw-a		poyawak
23.	□ sasamawa(-k)	*be swollen*			sasamawak
24.	□ sepowa(-k)	*become numb*			se-sepowak (se-)sepowki se-sepoktik

	intransitive	gloss	causative	applicative	participial
25.	soλa:wa(-k)	*become faint*	soλa:w-a		soλa:wak soλaktik
26.	λak^wa:wa(-k)	*become hard*	λak^wa:w-a λak^waktilia		λak^wa:wak λak^waktik
27.	□ λilewa(-k)	*become black*	λilew-a		λilewak λilektik
28.	□ teȼawa(-k)	*become thick*	teȼaw-a		teȼawak teȼaktik
29.	tepe:w-i	*be strewn*	tepe:w-a		te-tepewki
30.	□ tilawa(-k)	*become thick*	tilaw-a		tilawak
31.	toma:wa(-k)	*become fat*	toma:w-a		toma:wak
32.	to:ne:wa(-k)	*suffer*	to:ne:w-a		
33.	□ toyawa(-k) toyaw-i (cf MIS 214)	*pour out*	toyaw-a	toyawilia	
34.	wapa:wa(-k) wapaktiya(-k)	*become hard*	wapa:w-a		wapa:wak wapaktik
35.	□ yapalewa(-k) yapaltiy-a	*get black-and- blue marks*			yapalewak yapaltik yapalektik

	intransitive	gloss	causative	applicative	rep. intr.	rep. causative	participial
1.	□ ȼapi- (cf MIS 19)	*be punctured*	ȼapinia			ȼaȼapiȼ-a	ȼaptik
2.	ȼaya:n-i	*tear*	ȼaya:n-a	ȼa-ȼaya:nilia			ȼayanki ȼa-ȼayaktik
3.	□ ȼikʷin-i	*splash* (salpicar)	ȼikʷinia				ȼikʷiktik
4.	ȼili:n-i	*ring*	ȼili:nia		ȼiȼilika	ȼiȼiliȼ-a	ȼiliktik
5.	□ ȼo-ȼomon-i	*tear*	ȼomonia				
6.	□ ȼoλa-	*shine*	ȼoλania		ȼoȼoλaka		ȼoλanki
7.	□ ȼoyon-i	*fry*	ȼoyonia		ȼoȼoyoka		
8.	□ čakʷan-i	*become wet*	čakʷania		čačakʷaka	čačakʷaȼ-a	čakʷanki
9.	čala:n-i -ča-čaliw-i	*break* *be(come) rough*	čala:nia ča-čaloa		čačal(a)ka	čačalaȼ-a	čalanki ča-čaltik
10.	čapa:n-i	*become wet*	čapa:nia			čačapaȼ-a	čapanki
11.	čina-	*hurt*			čičinaka	čičinaȼ-a	
12.	čipi:n-i	*drip*	čipi:nia		čičipika		
13.	čito:n-i	*jump* (spark, chip)	čito:nia				
14.	kala:n-i	*ring*	kala:nia		kakalaka	kakalaȼ-a	
15.	kapa:n-i	*clatter*	kapa:nia		kakapaka	kakapaȼ-a	
16.	□ kašan-i	*become loose*	kašania	kašanilia			kašanki
17.	kina-	*growl*			kikinaka	kikinaȼ-a	
18.	komo:n-i	*catch fire*	komo:nia komo:naltia		kokomoka	kokomoȼ-a	komonki
19.	košo:n-i	*jingle*	kokošo:nia		kokošoka		košonki

	intransitive	gloss	causative	applicative	rep. intr.	rep. causative	participial
20.	koto:n-i	*break* (thread)	koto:n-a	koto:nia koto:nilia	kokotoka	kokotoȼ-a	kotonki ko-kotoktik
21.	koyon-i	*form a hole*	koyonia				koyonki koyoktik
22.	kʷala:n-i	*become angry*	kʷala:nia kʷala:n(i)tia		kʷakʷalaka		kʷala:nki kʷala:nini
23.	kʷepo:n-i	*burst, bud*	kʷepo:naltia		kʷekʷepoka		kʷeponki
24.	□ kʷeλan-i	*become calmer,* *burn w. flames*	kʷeλania *break*		kʷekʷeλaka	kʷekʷeλaȼ-a	kʷeλanki
25.	□ kʷeyon-i	*shine, swarm*			kʷekʷeyoka		
26.	moło:n-i (cf MIS 100)	*pour forth*	moło:nia *soften wool*		momoloka	momoloȼ-a	molonki moloktik
	moyoni cf yomoni						
27.	nal-	*growl*			nanalka	nanalȼa(-k)	toska-nanalka
	□ toska-nanaliw-i	*become hoarse*					toska-nanaltik
28.	paλa:n-i	*fly*			papaλaka		
29.	□ pešon-i	*be(come) filled* *w. liquid*	pešonia pešonaltia				pešonki
30.	peλa:n-i λa-peλa:n-i	*pour out* *lighten*	peλa:nia		pepeλaka	pepeλakiltia	peλanki
31.	peto:n-i	*be dislocated*	peto:nia				peto:nki
32.	□ peyo-	*shine* (water)			pepeyoka	tem-pepeyoȼ-a	(refl *pray between* *the teeth*)
33.	□ piȼin-i	*be crushed*	piȼinia				

34.	popolo:n-i	speak poorly		popoloka		
35.	poso:n-i	foam, boil	poso:nia poso:naltia	poposoka		posonki poso:nini
36.	poto:n-i	stink	poto:nia			poto:nki
37.	solo:n-i	splash		sosoloka	sosoloɟ-a	
38.	šama:n-i	crack, break	šama:nia	sašamaka	sašamaɟ-a	
39.	šiti:n-i	fall apart	šiti:nia	šišitika		šitinki
40. □	šittomon-i	explode	šittomonia			
41.	λaʔɟi:n-i (cf MIS 180)	explode, thunder	-λaʔɟi:nia			
42.	λapa:n-i	break	λapa:n-a	λaλapaka	λaλapaɟ-a	λapanki
43.	tei:n-i	break	tei:nia	teteika	teteiɟ-a	
44.	tekʷin-i	catch fire, beat (heart)	tekʷinia tekʷinaltia	tetekʷika	tetekʷiɟ-a	
45.	tilin-i	become tight	tilinia			tilinki tiliktik
46.	(to-)tomo:n-i	form blisters	tomo:nia to-tomo:naltia			
47.	wal-	bark		wawalka	wawalɟa(-k) wawaloa	
48. □	yomon-i moyon-i	swarm		yoyomoka		

	intransitive	gloss	causative	participial
1.	aʔwiya:y-a	*emit fragrance*	aʔwiya:lia	aʔwiya:k
2.	¢ope:liy(-)a(-k)	*become sweet*	¢ope:lilia	¢ope:lik
3.	ciciy(-)a(-k)	*become bitter*	cicilia	cicik
4.	etiy-a	*become heavy*	etilia etisiwitia	etik
5.	☐ i¢tiy-a	*become cold* (water)	i¢tilia	i¢tik
6.	istay(-)a(-k)	*become white*	istalia istakatilia istaloa	ista:k
7.	iʔya:y(-)a(-k)	*stink*		iʔya:k
8.	kokoy-a	*be sick*	kokolia kokoa	kokok kokoški
9.	kostiya(-k) kosawiy-a	*turn yellow*		kostik kosawki
9A.	paltiy(-)a(-k) intr palti(-k)	*become wet*	paltilia paloa	paltik
10.	☐ poye-	*become salty*	poyelia	poyek
11.	seliy(-)a(-k)	*sprout*		selik seltik
12.	sese:y(-)a(-k)	*become cold*	sese:lia	sesek
13.	☐ šokoya(-k)	*become sour*	šokolia	šokok
14.	šošo:wiya(-k) šošoktiya(-k)	*become green*	šošo:wilia	šošo:wki šošoktik

15.	λao:koy–a	*be sad*	λao:kolia	
			λao:koltia	λao:koški
16.	□ λapiwiy(–)a(–k)	*grow, multiply*	λapiwilia	
			λapiwia	
17.	□ λaλawiya(–k)	*become red*	λaλawilia	
				λaλaktik
18.	toto:niy(–)a(–k)	*become warm*	toto:nilia	toto:nki
			toto:nia	
19.	we:iy(–)a(–k)	*grow big*	we:ilia	we:i
20.	□ weli–	*be delicious*	welilia	welik
21.	yama:niy–a	*become lukewarm,*	yama:nilia	yama:nki
	yamastiy–a	*become soft*	yama:nia	yamastik
				yamaktik
22.	yankʷi–	*be(come) new*	yankʷilia	yankʷik

		tr/intr	gloss	causative	applicative	participial
1.	☐ ȼiȼikiloa	tr	*cut in*			
2.	☐ ȼikimoloa	tr	*defoliate*			
3.	ȼikʷnoa	intr	*hiccough*	ȼikʷnoltia		
4.	☐ ȼomokoa	refl	*exert oneself*			ȼomokoani
5.	☐ čačakʷačoa	tr	*make rough*			čačakʷačtik
6.	☐ kama–čaloa	"intr"	*open the mouth wide*			
7.	☐ koč–kama–čaloa	intr	*yawn*			
8.	čoloa	intr	*flee*	čololtia		
				čolwia		
9.	☐ ekʷšoa	intr	*sneeze*			
10.	☐ elinkoa	refl	*become stuffed*			
	ikʷšoa cf ekʷšoa					
11.	☐ isteȼkaloa	tr	*lick*			
12.	☐ istešoa	tr	*gnaw at*			
13.	kakaȼoa	tr	*make tight*			
	kakaȼa(-k)					
14.	kamana:loa	intr	*joke*		kamana:lwia	
15.	ƛan–ki–kis–i	intr	*whistle*			
	ki–kisoa	intr	*play the trumpet*			
16.	☐ kokoȼoa	intr	*run quickly*			
17.	☐ iš–koloa	tr	*do thoughtlessly*			
18.	☐ kotaloa	intr	*squeak*			

19.	□ kʷe-kʷecoa	tr	*make tremble*				
	□ kʷe-kʷeckilia	tr	*make tremble*				
	□ kʷe-kʷeȼoa	tr	*shake*				
	□ kʷe-kʷeȼoka(-k)	intr	*itch*				
	□ kʷecinia	refl	*move, stir*				
20.	□ λan-kʷiȼoa	"intr"	*show one's teeth*				λankʷikʷiȼtik
21.	kʷilto:noa	tr	*enjoy, enrich*				
22.	□ kʷiλasoa	tr	*soften, moisten*				
23.	□ maȼoa	tr	*"hacer bollos"*				
24.			*become famous*	mawisoa			
	mawisti(-k)	intr		mawistilia			mawistik
				mawisλa(-k)			
25.	□ nenkoa	tr	*defraud*				
26.	ololoa	tr	*make spherical*				
							ololtik
27.	□ oskoa	refl	*heat oneself by the fire*				
28.	papaloa	tr	*lick*	papalka	intr	*talk much*	
30.	□ pasoloa	tr/refl	*entangle, be bristled*				pasoltik
31.	patoa	intr	*play dice*				
32.	□ pipiȼoa	tr	*suck, gnaw*				
33.	□ pipicoa	tr	*flatter* (enlabiar)				
34.	□ ma-picoa	"intr"	*whistle through one's fingers* (cf CVCV 96)				
35.	pona:soa	tr	*fill w. wind*				
36.	sakamoa	intr	*till*	sakamolwia			
37.	si:koa	tr	*cheat*				

		tr/intr	gloss	causative	applicative	participial
38.	□ λaλakawiloa	tr	*flatter*			
39.	λaloa	refl	*run*			
40.	λamaɕoa	intr	*inform, advise*			
41.	□ λekᵂiloa	tr	*burn*			
42.	□ tapayoloa	tr	*make spherical*			
						tapayoltik
43.	□ tataka(-k)	tr	*scratch*			
	tatakaloa	tr	*make little holes*			
	tatakia	refl				
44.	□ teɕkonaloa	tr	*shave*			
45.	□ teteɕoa	tr	*polish*			
46.	tekipanoa	intr/tr	*work*			
47.	□ teteloa	tr	*hit. w. elbow*			
48.	te:moa	tr	*search*		te:molia	
49.	□ tenwimoloa	tr	*outline*			
50.	□ tesonoa	tr	*make rough*			
						tesontik
51.	□ toloa	intr	*bow one's head*	tololtia		
52.	toloa	tr	*swallow*			
53.	i:š-to:soa	intr	*wake*	i:š-to:soltia		
54.	□ wakaloa	tr	*groove*			wakaltik
55.	□ welɕonoa	refl	*lick oneself*			
56.	□ weloa	tr	*ruin*			
	welonia					

		tr/intr	gloss	causative	applicative	participial
1.	□ a(i)ʃʌaw–a	tr	*dress one's hair*			
2.	□ alpiči–a	tr	*sprinkle*			
3.	□ alti–a	intr/tr	*bathe*			
4.	aʔpa:n–a	tr	*clothe*			
5.	□ apica–	intr	*become stiff w. cold*			apicawki
6.	□ apoȼawi–a	tr	*flood*			
7.	□ ateki–a	tr	*sprinkle*			
8.	a:to:naw–i	intr	*have a fever*			
9.	□ atol–					atoltik *tender*
10.	aʔwači–a	tr	*sprinkle*			
11.	aʔwili–a	tr	*water*			
12.	a:wiy–a	intr	*be content*	a:wilti–a		
13.	naka–ȼaȼaiw–i (naka)ȼaȼati(–k)	intr	*become deaf*	naka–ȼaȼatili–a		
14.	□ ȼaȼanaȼ–a	intr	*rustle*			
15.	□ ten–ȼikʷew–a	tr	*chip*			ten–ȼikʷewki
16.	□ ȼikʷiliw–i	intr	*become thin and stiff*			ȼi–ȼikʷiltik
17.	ȼiȼilka(–k)	intr	*tremble w. cold*			
18.	ȼompiliw–i	intr	*have a cold*			
19.	□ ȼopini–a □ ȼoponi–a □ copini–a (cf NI 1)	tr	*pierce*			

		tr/intr	gloss	causative	applicative	participial
20.	□ –čakayoliw–i	intr	*be(come) callous*			ča-čayoliwki
	–ča–čakaliw–i					ma-ča-čakaliwini
						ča-čakayoltik
21.	□ čali–a	tr	*use for the first time*			
22.	ele:wi–a	tr	*want*	ele:wiltia	ele:wilia	
23.	□ elimik–i	intr/refl	*plow*			
24.	□ elsim–a	refl	*choke*			
25.	□ ten–iɟani–a	tr	*cut sacrificially*			
26.	iɟo:mi–a	refl	*blow one's nose*			
27.	ičtek–i	tr/intr	*steal*			ičtekki
						ičtekini
28.	iʔi:yo:ti–a	refl	*breathe*			
29.	ikne:li–a	tr	*be good to*			
30.	i:ko:lti–a	refl (+ tr)	*covet*			
31.	□ ikotoka(–k)	intr	*snore*			
32.	□ ikoyoka(–k)	intr	*roar (fire)*			
33.	iʔkʷani–a	tr	*move away*		iʔkʷanilia	
34.	□ ikšoλa(–k)	tr	*despise*			
35.			*say*		ilwia	
36.	il–ka:w–a	tr	*forget*	il-ka:waltia	il-ka:wilia	
37.	il–na:mik–i	tr	*remember*	il-na:miktia	il-na:mikilia	λa-lna:mikini
38.	i:lo:t–i	intr	*return*	i:lo:čtia		

39.	ilpi-a	tr	tie			
40. □	il-pič-a	tr	blow (cf CVCV 96)			
41. □	iltek-i	tr	absorb			
42.	i:makas-i	tr	fear			i:makasilia
43.	i:na:y-a	tr	hide (cf CVCV 48)			
44.	iʔsanaka(-k)	intr	rustle			
45. □	isawaka(-k)	intr	rumble		isawakak	
					isawaktik	
46. □	isawi-a	tr	frighten			
47. □	iseli-a	tr	devote oneself to			
48. □	isewi-a	tr	confuse			
49.	iskali-a	tr	revive	iskaltia bring up		
50.	isλakat-i	intr	lie			
	isλakawi-a	tr	cheat		isλakalwia	isλakatki
51. □	isaki-a	tr	mend weaving			
52.	iʔsami-a	tr	wash face			
53.	iʔsika(-k)	tr	ooze			
54.	i:sima-ti	tr	know (conocer)			
55.	isocti-a	refl	vomit			
56. □	ispawi-a	tr	accuse			
57.	isλa:w-i	intr	be restored	isλa:w-a		
				isλa:wia		
58. □	itoni-a	refl	sweat			
59.	iʔtoti-a	refl	dance			
60.	iwinti-a	refl	become drunk		iwintik	

		tr/intr	gloss	causative	applicative	participial
61.	kakawaka(-k)	intr	be warm			
62.	□ kakisti(-k)	intr	resound	kakistilia		
63.	□ kamilewa(-k)	intr	become red/ripe			kamilektik
64.	□ kakayaka(-k)	intr	be decomposed	kakayakilia		kakayaktik
				kakayacilia		
65.	kakaya:w-a	refl	deceive			
66.	□ kʷa-kayawa(-k)	intr	lose one's hair			
67.	□ (ke)keɟom-a	tr	bite			
68.	□ λan-keci-a	tr	bite into			
69.	□ kelon-i	intr	be dislocated			kelonki
70.	□ kekeškiya(-k)	intr	itch			kekeškik
	□ kekeyoka(-k)	intr				
71.	kiɟki-a	tr	hold tight			
	(cf WI 3)					
72.	□ kokoloti(-k)	intr	become skinny	kokolotiy-a		kokolotik
73.	□ iš-kolew-a	tr	detach			
74.	□ kokopew-i	intr	scabs, dandruff come off			
75.	□ kopin-a	tr	take form from			
76.	□ siyo-kopin-i	intr	become pale w. fear			siyo-kopinki
						siyo-kopiktik
77.	□ kʷe(i)kšolwi-a	tr	jump across stream			
	□ kʷeakšolwi-a					
	□ kʷencolwi-a					

78.	□ kʷekʷenot-i	intr	be proud	kʷekʷenowia		kʷekʷenotki
79.	□ kʷeλawiy(-)a(-k)	intr	wither	kʷeλalwia		kʷeλawki
80.	kʷiλawi-a	refl + tr	take care of			
81.	□ mačan-a	tr	weave (fence), make wattle			mačanki
82.	□ mačisti(ya)(-k)	intr	sounds, is known	mačistia		
83.	□ ma-kaw-a	tr	let go, grant		makawilia	
84.	□ makis-a	intr	escape	makistia		makiski
85.	□ mamačoλa(-k)	tr	flatter			
86.	mali:n-a	tr	twist			mali:nki
87.	ma(na)lwi-a	tr	take good care of			
88.	□ manawi-a	tr	defend			
89.	□ masasiw-i	intr	rave			
90.	maʔse:w-a	tr	deserve	maʔse:waltia	maʔse:wia	
91.	□ masew-a	intr	dance			masewki
92.	maya:n-a	intr/tr	be hungry	maya:naltia		
93.	□ mayaw-i	tr	throw			
94.	□ mekani-a	tr	hang			
95.	□ mikiyanti-a	tr	entrust someone with			
96.	mi:siw-i	intr	give birth	mi:siwitia		mi:siwki
96A.	□ momoȼin-i	intr	crack			momoȼinki
97.	□ momoȼka(-k)	intr	shine (fat in soup)			
98.	momoȼkʷi(-k)	intr	crack			

		tr/intr	gloss	causative	applicative	participial
99.	□ molew-a	tr	*soften* (earth)			
100.	□ momoločwi-a (cf NI 26)	tr	*stir* (water)			
101.	□ motošawili-a	tr	*knock down*			
102.	nanačka(-k)	intr	*creak*			
103.	□ nakasan-a	tr	*put in square*			
104.	□ nakti-a	tr	*detain*			
105.	namaka(-k)	tr	*sell*			
106.	na:mik-i	tr	*meet*			
	na:mikti-a	refl	*marry*		na:miktilia	
107.	na:moya:(-k)	tr	*steal*		na:moya:lia	
108.	na:nkili-a	tr	*answer*			
109.	nawat-i	intr	*sound good*	nawatia tr *command*		
110.	□ nawatek-i	tr	*embrace*			
	□ keč-nawa(-?)	tr	*embrace*			
111.	ne:newili-a	tr	*pair*			nenewki nenewiški
112.	□ nesawili-a	tr	*be in mourning for* (cf saw-a *fast*, CVCV 105)			
113.	□ neweč-i	intr	*be unfortunate*			
114.	□ nokiw-i	intr	*pour out*	nokia nokitia nokiltia	nokilia	
115.	□ nonti(-k)	intr	*become dumb*			

116.	□ oȼti(ya)(-k)	intr	*become pregnant*	oȼtia		
117.	ocpa:n-a	tr	*sweep*			
118.	□ octili-a	refl	*struggle*			
119.	□ okcoti-a	refl/tr	*marry* (woman)			
120.	□ okicwati-a	refl	*marry* (woman)			
121.	oli:ni-a	refl	*move, stir*			
122.	□ ollam-a	intr	*play ball*	ollamia		
123.	□ omeli-a	tr	*fold, turn*			
124	□ opo:w-a	tr	*tell jokes*			
125.	pa:ȼka(-k)	tr	*squeeze*		pa:ȼkilia	
126.	paciw-i	intr	*be satiated*	paciwitia		paciwki
127.	□ papacka(-k)	intr	*curdle*	papaȼa(-k)		
128.	□ pain-a	intr	*run quickly*	painaltia		painani
129.	pala:n-i	intr	*rot*	pala:niltia pala:naltia		pala:nki
130.	pale:wi-a	tr	*help*			
131.	□ paλasim-a	tr	*carve* (wood)			
132.	pati-a	tr	*repair*		patilia	λa-patiani
133.	pa:was-i	tr	*cook in a pot*			
134.	□ papawi-a	tr	*yell*			
135.	payan-a	tr	*crumble*		payawilia	
136.	□ peλaw-a	tr	*shine*			
137.	(pe-)peλaw-a	tr	*strip*			

		tr/intr	gloss	causative	applicative	participial
138.	□ pipi¢ka(-k)	intr	*squeak*	pipi¢kiltia		
139.	□ pi¢ikiw-i	intr	*eat much*			
140.	pi:na:wa(-k)	intr	*be ashamed*	pi:na:wia		pi:na:wki
				pi:na:wtia		
141.	□ pinewa(-k)	intr	*become pale w. cold*			
						pinektik
142.	□ pipini-a	intr	*become moist*			
143.	□ pipiniya(-k)	intr	*become thin w. age*			
						pipinki
144.	piška(-k)	intr	*harvest*			
145.	□ počin-a	tr	*card* (wool)			počiktik
146.	□ polak-i	intr	*sink* (in water)	polaktia		polakki
147.	□ posati(-k)	intr	*be gluttonous*			
148.	□ sasawaka(-k)	intr	*be hoarse*			
149.	seli-a	tr	*receive*			
150.	□ sepo:w-a	tr	*crush*			
151.	□ el-sisiw-i	intr	*sigh*			
152.	□ siwapaw-a	intr	*be very cold*			
153.	□ siyaw-a	tr	*make wet*			
154.	siyaw-i	tr/intr	*tire*	siyawiltia		
155.	siyo-tom-i	intr	*come undone* (seam)	siyo-tom-a		
156.	□ kak-solew-i	intr	*have callous feet*			
157.	□ sonew-a	tr	*excite, make fluffy*			sonewki
						sonektik

158.	□ sosoyoti-a	tr	reconcile	
159.	□ šapoλa(-k)	tr	pierce	
160.	šawa:ni-a	tr	pour out	
161.	□ šišikipiliw-i	intr	be swollen	šišikipiltik
162.	□ šipew-a	tr	peel	
163.	□ šiwkaliw-i	intr	become pale, green	šiwkaltik
164.	□ šolew-a	refl	scratch oneself	
165.	□ šolon-i	intr	become worse (sore)	
166.	□ λaȼomi-a	tr	snort	
167.	□ λačiwi-a	tr	cast a spell on	
168.	□ λakew-a	tr	hire	λakewaltia
169.	□ λakisawi-a	refl	shake	
170.	□ λakpew-a	intr	cover embers	
171.	λa:li-a	tr	put	
172.	□ iš-λaliw-i	intr	become full of dust	
	iš-λallowa(-k)			
173.	□ λalloti-a	tr	remove from	
174.	□ λaločti-a	tr + 2	snatch from	
175.	□ λanaliw-i	intr	clear up (weather)	
176.	λane:wi-a	tr	borrow, rent	λanewtia
177.	□ λaniȼti-a	refl	boast	
178.	λapoyawa(-k)	intr	grow dark	
	(cf CVCV 152)			

		tr/intr	gloss	causative	applicative	participial
179.	λasoʔti(-k)	intr	*be valuable*	λasoʔλa(-k) λasoʔtilia		
180.	□ ma-λaλaȼ-a ma-λaλaškalo-a (cf NI 41 *explode*)	refl refl	*clap*			
181.	λa:ti-a	tr	*hide*		λa:tilia	
182.	λa:wa:n-a	intr	*drink wine*	λa:wa:ntia		λa:wa:nki λa:wa:nani
183.	λa:wi-a	intr	*light* (candle)		λa:wilia	
184.	λa:λawti-a	intr	*entreat*		λa:λawtilia	
185.	□ λeʔkoteka(-k)	tr	*hurry*			
186.	□ takaliw-i	intr	*be bruised*			
187.	□ tama-či:w-a	tr	*measure*			
188.	□ teȼakati teȼikati	intr	*become sterile*	teȼakatilia		
189.	□ teȼawi-a	tr	*scandalize*			
190.	□ teȼkalwi-a	tr	*sweep very clean*			teȼkaltik
191.	teȼonti-a	tr	*support*			
192.	□ tetekiliw-i	intr	*scratch oneself*			
193.	tekiti(-k)	intr	*work*	tekitia		tekitki tekitini
194.	□ tekoyo:wa(-k)	intr	*roar*			tekoyo:wani
195.	□ tekpan-a	tr	*put in order*			
196.	te:mik-i	intr	*dream*			te:mikini

197.	te:ne:w-a	tr	*promise*		
198.	□ tenisti-a	tr + 2	*entrust*		
199.	□ teoɸikolew-a	intr	*convalesce*		
200.	teo:λakiya(-k)	intr	*become late*		
201.	□ tepini-a	tr	*punch*		
202.	tepoλami-a	refl	*stumble*		
203.	□ tetewan-a	tr	*stretch*		
204.	□ ti-tiɸ-a	refl	*stretch*		
205.	□ ti-tikan-a	tr	*stretch*		
206.	□ tilan-a	tr	*stretch*		
207.	ti:λan-i	tr	*send*		
208.	□ toki-a	tr	*poke* (fire)		
209.	toli:na(-k)	intr	*be hungry, poor*	toli:nia	toli:nani
210.	□ totomoliw-i	intr	*sprout*		totomoliwki
211.	□ tomposti(-k)	intr	*be crazy*		
212.	□ topew-a	tr	*push*		
213.	□ totopoɸ-a	tr	*fry*		totopočtik
214.	□ tošaw-a (cf WA 33)	tr	*pour* (wheat etc.)		
215.	□ iš-tošom-a	tr	*scratch*		
216.	□ totoyoka(-k) (cf CVCV 136)	intr	*hurry*		
217.	□ wa-walani-a	tr	*vomit*		

		tr/intr	gloss	causative	applicative	participial
218.	□ wasom-i		*be bruised, scraped*	wasom-a		
219.	weȼka(-k)	intr	*laugh*	weȼkitia	weȼkilia	
220.	we?ka:w(-)a(-k)	intr	*stay long*	we?ka:w-a we?ka:witia		we?ka:wani
221.	weliti(-k)	intr	*be able to*	welitia welitiltia		welitini
222.	□ wepan-a	intr	*drag wood*			wepanani
223.	wila:n-a	tr	*drag*			
224.	□ wipan-a	tr	*place orderly*			
225.	□ wisin-i	intr	*jump up*			
226.	□ wiʌaȼ-	intr	*be(come) long*			wiʌaȼtik weʌaȼtik
227.	wi:tek-i	tr	*beat*			
228.	yakan-a	tr	*guide*			
229.	ya:o:ʌa(-k)	tr	*fight with*	ya:o:tia		
230.	yo:koy-a	tr	*produce*			
231.	□ yopew-a	tr	*detach*			
232.	yowili-a (cf CVCV 152)	intr	*stay the night*			

INDEX TO APPENDIX

The index contains all the forms found in the appendix. Each entry here includes the form as cited in the appendix and a reference to group (CVCV, WI, etc.) and number (1, 2, 3, etc.). Then the corresponding entry from Molina's dictionary is given, in his orthography and with (one of) his translations.

In the index a word may appear in several places, *a:-toko(-k)* can be found both under *a* and under *t*. However, not all words formed from one root will necessarily occur in more than one place, thus *a:-toktia* appears only under *t*. The verb *i̓λ¢om–a* is entered under *i*, the form *¢om–a* appears under *¢* but only with a cross–reference to *i̓λ¢om–a*.

Reduplications are recognized as such only in cases where the roots are also found unreduplicated. A hyphen separates reduplications and other obviously prefixed elements from the roots.

This index was worked out and is included in the book for the purpose of making it easy 1) to locate the forms in the appendix and 2) to check the suggested transcriptions and translations against Molina's entries.

In the index, the following alphabetical order is followed: a, ¢, č, e, i, k, k^w, m, n, o, p, s, š, λ, t, w, y.

aisλaw–a	MIS 1	aixtlaua.nin.rodear la muger los cabellos ala cabeça componiendose.
ak–i	CVCV 1	aqui.n.caber en agujero.
akia	CVCV 1	aquia.nitla.trasponer arboles, hinchar estacas, o meter algo en agujero.
akitia	CVCV 1	aquitia.nitla.emplear la mercaduria, o hazer caber algo en alguna parte.
alaktik	WA 1	alactic.cosa deleznable.
alastik	WA 1	alaztic.cosa deleznable.
alaw–a	WA 1	alaua.nin.resbalar.
alawak	WA 1	alauac.cosa deleznable.
alpičia	MIS 2	alpichia.nitla.rociar algo.
altia	MIS 3	altia.n.bañarse. altia.nite.bañar a otro.
a: m–i	CVCV 2	ami.n.montear o caçar.
a: milia	CVCV 2	amilia.nite.montear o caçar para otros.
a: mini	CVCV 2	amini.montero o caçador.

a:n-a	CVCV 3	ana.nite.tomar, asir, o prender, o adiestrar ciego. ana.nin.crecer en el cuerpo.
a:nki	CVCV 2	anqui.montero, o caçador, o cosa luenga o larga.
m-a:nki	CVCV 3	manqui.crecido en edad.
aʔpa:n-a	MIS 4	apana.nin.arrearse.
apičawki	MIS 5	apichauhqui.aterido de frio.
apoȼawia	MIS 6	apotzauia.nitla.anegar la ortaliza.
aʔsi(-k)	CVCV 4	aci.n.llegar con la mano, o alcançar conella a dõde algo esta, o llegar al lugar dõdevoy. aci.nite.alcançar al que camina, o va huyendo, o ala caça.
aʔsilia	CVCV 4	axilia.nic.alcançar asaber algo enteramente. axilia.nitetla.montear, o caçar para otro.
aʔsiltia	CVCV 4	axiltia.nite.acompañar o seguir a otro hasta su posada.
asʌaw-a	MIS 1	axtlaua.nin.rodear ala cabeça los cabellos la muger, componiendolos.
atekia	MIS 7	atequia.nitla.regar.
a:-toko(-k)	CVCV 139	atoco.n.lleuarme, o ahogarme el rio.
atoltik	MIS 9	atoltic.cosa muy blanda, como higo muy maduro.
a:to:naw-i	MIS 8	atonaui.n.tener calentura con frio.
aʔwa(-k)	CVCV 5	ava.nite.reñir a otro.
aʔwačia	MIS 10	auachia.nitla.rociar algo.
aʔwilia	MIS 11	ahuilia.nitla.regar la huerta o los trigos. & c.
awiliw-i	WI 1	auiliui.n.apocarse con los vicios.
awiloa	WI 1	tlaauiloa.ni.afrentar o auergonçar, o hazer caer en falta.
awiltia	WI 1	auiltia.nic.hazer mal al cauallo o ginetear.
a:wiltia	MIS 12	auiltia.nin.passar tiempo.
awilwia	WI 1	tlacaauilhuia.nite.peruertir y malear a otro.
a:wiy-a	MIS 12	auia.n.tener lo necessario y estar contento.
aʔwiya:k	YA 1	auiac.cosa suaue y olorosa.
aʔwiya:lia	YA 1	auialia.nitla.perfumar algo.
aʔwiya:y-a	YA 1	auiaya.n.tener o dar de si buen olor.
ay-i	CVCV 6	ay.nitla.hazer alguna cosa exterior.
naka-ȼaȼaiw-i	MIS 13	nacatzatzaiui.ni.ensordecer.
ȼaȼanaȼ-a	MIS 14	tlatzatzanatza.ni.hazer ruido con cañas, esteras, o con cosas semejantes.
ȼa-ȼapiȼ-a	NI 1	tzatzapitza.nitla.punçar, picar o dar de espoladas al cauallo.
naka-ȼaȼati(-k)	MIS 13	nacatzatzati.ni.ensordecer. tzatzati.ni.ensordecer.
naka-ȼaȼatilia	MIS 13	nacatzatzatilia.nite.hazer sordo a otro.
ȼa-ȼayaktik	NI 2	tzatzayactic.resquebrajado abierto, rompido, rasgado o hendido en muchas partes.
ȼa-ȼaya:nilia	NI 2	tzatzayanilia.nitetla.rasgar, romper o despedaçar ropa aotro.
ȼaʔȼi(-k)	CVCV 7	tzatzi.ni.pregonar, dar bozes, balar la oueja, bramar el toro, o cantar el gallo de castilla.

ȼaʔȼilia	CVCV 7	tzatzilia.nite.llamar o dar bozes a otro.
ȼaʔȼini	CVCV 7	tzatzini.el que da bozes, o el pregonero.
ȼaʔȼitia	CVCV 7	tzatzitia.nite.hazer dar bozes a alguno, maltratandolo, o espantandolo.
ȼakʷ-a	CVCV 8	tzaqua.nitla.atapar o cerrar algo, o lastar y pagar la pena puesta por la ley.
ȼakʷia	CVCV 8	tzacuia.nite.vel nitla. ser el postrero y ultimo de todos.
ȼakʷilia	CVCV 8	tzacuilia icnino.ampararse con alguna cosa, o de tras de algo.
ȼakʷiltia	CVCV 8	tzacuiltia.nitetla.castigar o justiciar a alguno.
ȼapinia	NI 1	tzapinia.nite.espinar o punçar a otro.
ȼaptik	NI 1	tzaptic.cosa que tiene punta muy aguda y delgada.
ȼaw-a	CVCV 9	tzaua.ni.hilar.
ȼawani	CVCV 9	tzauani.hilador o hilandero.
ȼawki	CVCV 9	tzauhqui.hilador o hilandero.
ȼaya:n-a	NI 2	tzayana.nitla.rasgar, romper, o hender algo.
ȼaya:n-i	NI 2	tzayani.rasgarse algo.
ȼayanki	NI 2	tzayanqui.cosa rasgada.
ȼeȼeliw-i	WI 2	tzelzeliui.llouiznar, oneuar.
ȼeȼeloa	WI 2	tzetzeloa.nitla.sacudir la ropa, o el arbol de fruta para derrocarla, o cernir algo, criuar, o çarandar.
ȼeȼelwia	WI 2	tzetzelhuia.nitetla.cerner algo a otro, o sacudirle la ropa.
ȼi-ȼiȼ-a	WI 3	tzitzitza.nitla.atorar algo.
ȼiȼi:ka(-k)	WI 3	tzitzica.nitla.atorar o meter algo muy apretado ē algun agujero.
ȼiȼikiloa	OA 1	tzitziquiloa.nite.sajar a otro.
ȼi-ȼikʷiltik	MIS 16	tzitzicuiltic.cosa muy flaca y seca.
ȼi-ȼiliȼ-a	NI 4	tzitzilitza.nitla.repicar campanas.
ȼi-ȼilika(-k)	NI 4	tzitzilica, sonar los reales o la moneda, quando la cuentan.
ȼiȼilka(-k)	MIS 17	tzilzilca.ni.temblar o titerear de frio.
ȼi:-ȼkia	WI 3	tzitzquia.nitla.asir, o tener algo enla mano.
ȼi:ȼkilia	WI 3	tzitzquilia.nitetla.tocar conla mano, o palpar a otro, o a otra sus verguenças.
ȼikalwia	WI 3	tzicalhuia.nic.detener alguna cosa a otro.
ȼikawki	WI 3	tzicauhqui.cosa asida, o pegada a alguna cosa.
ȼikimoloa	OA 2	tziquimoloa.nitla.deshojar ramas de arboles.
ȼikoa	WI 3	tzicoa.nite.detener a algunopara que nose vaya. tzicoa.nitla.asir, o pegar algo a otra cosa.
ȼikololtia	WI 3	tzicololtia.nite.estoruar, o impedir a otro.
ȼikoltilia	WI 3	tzicoltilia.nite.detener a otro.
ten-ȼikʷew-a	MIS 15	tentzicueua.nitla.mellar vaso.
ten-ȼikʷewki	MIS 15	tentzicueuhqui.vaso mellado assi.
ȼikʷiktik	NI 3	tzicuictic.persona suelta, ligera y deligente.
ȼikʷiliw-i	MIS 16	tzicuiliui.ni.pararse muy flaco, o tollirse.

ȼikʷín–i	NI 3	tzicuini.salpicar, qualquier cosa liquida.
ȼikʷinia	NI 3	tzicuinia.nitla.salpicar algo con algunna cosa liquida.
ȼikʷnoa	OA 3	tzicunoa.ni.solloçar, o hipar.
ȼikʷnoltia	OA 3	tzicunoltia.nite.espantar o amedrentar a otro.
ȼiliktik	NI 4	tzilictic.cosa que tiene claro sonido.
ȼili:n–i	NI 4	tzilini.sonar, o reteñir el metal.
ȼili:nia	NI 4	tzilinia.nitla.tañer campana.
ȼipinalwia	WI 4	tzipinalhuia.nitetla.aojar niño.
ȼipinoa	WI 4	tzipinoa.nite.hazer enfermar al niño la madre, por se auer tornado a empreñar luego.
ȼo–ȼomon–i	NI 5	tzotzomoni.rasgarse, o romperse alguna cosa.
ȼoȼon–a	CVCV 10	tzotzona.nite.apuñear, o dar golpe a otro.
ȼo–ȼoλaka(–k)	NI 6	tzotzotlaca.ni.reluzir, relumbrar.
ȼo–ȼoyoka(–k)	NI 7	tzotzoyoca.hazer ruido loque se frie.
ȼoliw–i	WI 5	tzoliui.estrecharse algo.
ȼoloa	WI 5	tzoloa.nitla.estrechar, o ensangostar algo.
ȼoltik	WI 5	tzoltic.cosa estrecha, o angosta.
ȼom–a	CVCV 21	cf iȝȼom–a
ȼo:mia	MIS 26	cf iȼo:mia
ȼomokoa	OA 4	motzomocoani.laboriosoque trabaja reziamente. tzomocchiua.nitla.hazer also cõ mucho trabajo sacando fuerças de flaquerza.
ȼomokoani	OA 4	motzomocoani.laboriosoque trabaja reziamente.
ȼomonia	NI 5	tzomonia.nitla.romper, o rasgar alguna cosa.
ȼompiliw–i	MIS 18	tzompiliui.ni.tener romadizo.
ȼop–a	CVCV 11	tzupa.nitla.acabar y concluir detexer la tela, o la boueda, el maderamiento dela casa, o cosa semejante.
ȼope:lik	YA 2	tzopelic.cosa dulce.
ȼope:lilia	YA 2	tzopelilia.nitla.ēdulcecer algo.
ȼope:liy(–)a(–k)	YA 2	tzopelia.ni.endulcecerse.
ȼop–i	CVCV 11	tzupi.acabarse de concluir la tela.
ȼopinia	MIS 19	tzopinia.nite.punçar a otro.
ȼopki	CVCV 11	tzupqui.cosa concluida y acabada (tela, boueda, maderamiento de la casa).
ȼoponia	MIS 19	tzoponia.nite.punçar a otro. (cf NI 1)
ȼoλania	NI 6	tzotlania.nitla.barnizar algo con aceite de chia.
ȼoλanki	NI 6	tzotlanqui.cosa barnizada y reluziente.
ȼoyon–i	NI 7	tzoyoni.freirse algo.
ȼoyonia	NI 7	tzoyonia.nitla.freir algo.
ča–čakaliw–i	MIS 20	machachacaliui.ni.tener callos en las manos.
ča–čakayoliw–i	MIS 20	chachacayoliui in noma, tener los manos llenas de callos.
ča–čakayoltik	MIS 20	chachacayoltic.cosa llena de callos.

čičikoa	WI 6	chichicoa.nitla.māchar algo.
čičiktik	WI 6	chichictic.cosa manchada o manzillada.
čičiktilia	WI 6	chichictilia.nitla.manchar algo.
čičilia	YA 3	chichilia.nitla.azedar ohazer amargo algo.
či:či:liw-i	WI 8	chichiliui.ni.pararse bermejo o colorado.
či:či:liwki	WI 8	chichiliuhqui.bermeja cosa o colorada.
či:či:loa	WI 8	chichiloa.nitla.hazer algo bermejo o colorado.
či:čiltik	WI 8	chichiltic.cosa colorada o bermeja.
či:či:ltiya(-k)	WI 8	chichiltia.ni.pararse bermejo.
čičin-a	CVCV 15	chichina.nitla.chupar algo, o tomar sahumerio de olores con cañas.
čičinaȼ-a	NI 11	chichinatza.nite.atormentar y afligir a otro.
čičinaka(-k)	NI 11	chichinaca.ni.tener dolor.
či-činalwia	WI 9	chichinalhuia.nitetla.quemar misses, o campos de otro.
či:čini	CVCV 13	chichini.el que mama.
λa-čiʔčini	CVCV 13A	tlachichini.remendon.
či-činoa	WI 9	chichinoa.nite.chamuscar o quemar a otro.
či-čipaktik	WA 5	chichipactic.cosa linda.
či-čipeliwki	WI 10	chichipeliuhqui.llagado.
či-čipika(-k)	NI 12	chichipica.gotear algo.
či:čitia	CVCV 13	chichitia.nite.vel, nitla.dar amamar.
čičiwal-nanaȼiw-i	WI 41	chichiualnanatziui.ni.tener retesadas las tetas.
čičiy(-)a(-k)	YA 3	chichia.ni.azedarse algo.
čikaktik	WA 4	chicactic.cosa rezia y fuerte.
čika:wa(-k)	WA 4	chicaua.ni.arreziar o tomar fuerças.
čika:w-a	WA 4	chicaua.nitla.fortalecer o guarnecer algo.
čika:wak	WA 4	chicauac.cosa rezia y fuerte.
čik-i	CVCV 14	chiqui.nitla.raspar, o rallar algo.
čikoloa	WI 7	chicoloa.nitla.entortar algo.
čikoltik	WI 7	chicoltic.cosa tuerta como garauato.
čikolwia	WI 7	chicolhuia.nitla.hazer algo con garauato, o garfio, o colgar algo de algun garaugato.
činalwia	WI 9	chinalhuia.nitetla.quemar campos, o miesses de alguno.
činoa	WI 9	chinoa.nitla.quemar los campos.
čipa:wa(-k)	WA 5	chipaua.pararse limpio.
čipa:w-a	WA 5	chipaua.nite.alimpiar o purificar a otro.
čipa:wak	WA 5	chipauac.cosa limpia.
čipeliw-i	WI 10	chipeliui.descostrarse.
čipeloa	WI 10	chipeloa.nitla.hender por el cañaueral, o por cosa semejante, o abrir los beços de la llaga.
čipelwia	WI 10	chipelhuia.nitetla.descostrar algo a otro.
čipi:n-i	NI 12	chipini.gotear, o caer gota.

čipi:nia	NI 12	chipinia.nitla.echar gotas enalguna cosa.
čite-koloa	WI 23	chitecoloa.nitla.hazer aros, o cosa semejante.
čite-kolwia	WI 23	chitecolhuia.nitetla.doblegar algo a otro, como vara, o cosa semejante.
čitoliwki	WI 24	chitoliuhqui.cosa torcida, o acostada.
čito:n-i	NI 13	chitoni.saltar el astilla.
čito:nia	NI 13	chitonia.nitla.hazer saltar la cuenta que queria ensartar, o las astillas de algun madero.
čittoliw-i	WI 24	chittoliui.entortarse o torcerse.
čittoloa	WI 24	chittoloa.nitla.hazer aros, o cosa semejãte.
či:w-a	CVCV 16	chiua.nic.vel.nitla.hazer algo.
tama-či:w-a	MIS 187	tamachiua.nitla.medir algo.
λa-či:wani	CVCV 16	tlachiuani.hazedor de alguna cosa.
te:-či:wani	CVCV 16	techiuani.hazedor, criador, o engendrador.
čiwia	MIS 167	tlachiuia.nite.hechizar o aojar a otro.
či:y-a	CVCV 17	chia.nite.esperar a alguno.
čiyaktik	WA 6	chiyactic.mancha de azeite o de manteca.
či:yalia	CVCV 17	chielia.nic.aguardar a otro con refresco o con otra cosa, o guardarle algo para quando venga.
či:yaltia	CVCV 17	chiyaltia, chieltia, chialtia.nic.aguardar a otro con refresco o con otra cosa, o guardarle algo para quando venga.
te:-či:yani	CVCV 17	techiani.el que espera, o aguarda a otro.
čiyawa(-k)	WA 6	chiyaua.ni.mancharse o henchirse de grassa.
čiyaw-a	WA 6	chiaua.nitla.manchar algo.
čiyawak	WA 6	chiauac.cosa grasienta.
čo:ka(-k)	CVCV 18	choca.ni.llorar, balar la oueja, bramar el leon o le toro, cantar el buho o las otras aues.
čo:kani	CVCV 18	chocani.llorador.
čo:kilia	CVCV 18	choquilia.nite.llorar a otro.
čo:ktia	CVCV 18	choctia.nite.hazer llorar a otro.
čoloa	OA 8	choloa.ni.huyr, saltar.
čololtia	OA 8	chololtia.nite.hazer huyr a otro.
čolwia	OA 8	cholhuia.nitla.saltar arroyo o acequia.
čopinia	MIS 19	chopinia.nite.picar la biuora, o comer el paxaro.
ekʷsoa	OA 9	ecuxoa.n.estornudar.
ele:wia	MIS 22	eleuia.nitla.dessear o cobdiciar algo.
ele:wilia	MIS 22	eleuilia.nic.cobdiciar algo a otro.
ele:wiltia	MIS 22	eleuiltia.ninote.procurar que otros me cobdicien.
elimik-i	MIS 23	elimiqui.n.labrar o arar la tierra. melimiqui.labrarse y ararse la tierra parasembrarla.
elinkoa	OA 10	elincoa.nin.ahitarse.
elsim-a	MIS 24	elcima.nin.atrauesarseme el bocado enlos gaznates.

el–sisiw–i	MIS 151	elciciui.n.sospirar.
etik	YA 4	etic.cosa pesada.
etilia	YA 4	etilia.nite.ser pesado a otro.
etisiwitia	YA 4	eticiuitia.nite.ser pesado a otro.
etiy–a	YA 4	etia.n.hazerse pesado.
e:w–a	CVCV 19	eua.n.leuantarse el aue para bolar. eua.nin.leuantarse de dormir, o de donde esta echado.
e:waltia	CVCV 19	eualtia.nitla.hazer partir, o despachar los tamemes. (y)eualtia.nite.perseguir a otro.
e:watilia	CVCV 19	yeuatilia.nino.auentajarse y tenerse por mejor que los otros.
e:wi:tia	CVCV 19	euitia.nite.despachar mensajeros o tamemes, o esforçar y animar a otros, o refocilar y dar de comer a algunos.
m–e:wki	CVCV 19	meuhqui.leuantado dela cama.
i:(–k)	CVCV 20	y.nitla.beuer maçamora, cacao, pinol, o cosa semejãte.
ten–iɟania	MIS 25	tenitzania.nino.sacrificar y cortar los labrios ãte los idolos.
iʔȼom–a	CVCV 21	tzoma.nitla.coser algo, o cubrir de paja el bohio.
iʔȼomia	CVCV 21	tzomia.nitetla.coser ropa para otros.
iȼo:mia	MIS 26	tzomia.nini.sonarse las narizes.
iɟtik	YA 5	itztic atl.aguafria.
iɟtilia	YA 5	itztilia.nitla.enfriar agua.
iɟtiy–a	YA 5	ytztia.enfriarse el agua.
ičtek–i	MIS 27	ichtequi.robar.
ičtekini	MIS 27	ichtequini.ladron.
ičtekki	MIS 27	ichtecqui.ladron.
ičpeliwki	WI 10	iychpeliuhqui.llagado.
iʔiy(–)a(–k)	CVCV 22	ihia.nite.aborrecer a otro.
λa–iʔiyani	CVCV 22	tlayhiani.asqueroso y aborrecedor dela comida, o dela muger.
iʔi:yo:tia	MIS 28	ihiotia.nin.resollar.
iʔka–k	CVCV 23	icac.n.estar en pie.
iʔkal–i	CVCV 24	icali.nite.pelear contra otros.
ikit–i	CVCV 25	iquiti.n.texer tela.
ikitini	CVCV 25	iquitini.texedor.
ikitki	CVCV 25	texedor.yquitqui.
ikne:lia	MIS 29	icnelia.nite.hazer bien a otro.
i:ko:ltia	MIS 30	icoltia.nin.antojarseme alguna cosa. icoltia.ninotla.cobdiciar algo.
ikop–i	CVCV 26	icopi.n.cerrar los ojos.
ikopilwia	CVCV 26	icopilhuia.nite.hazer del ojo a otros.
ikotoka(–k)	MIS 31	icotoca.n.roncar.

ikoyoka(-k)	MIS 32	icoyaca,hazerruido la llama del fuego.
iksa(-k)	CVCV 27	icça.niqu.hollar, o pisar algo.
ikšoλa(-k)	MIS 34	icxotla.nite.menospreciar a otro.
iʔkʷania	MIS 33	iquania.nitla.mudar, o apartar algo de vna parte a otra.
iʔkʷanilia	MIS 33	iquanilia.nicte.apartar algo de alguno.
iʔkʷiloa	WI 11	cuiloa.nitla.escreuir o pintar algo.
iʔkʷilwia	WI 11	cuilhuia.nitetla.escriuir opintar algo para otro o a otro.
ikʷiy-a	CVCV 28	icuia.nitlate.liar algo cõ cordeles, o deuanar hilo o arrollar esteras, cueros & c.
ikʷsi(-k)	CVCV 29	icuci.madurarse la fruta, o cozerse algo.
ikʷšoa	OA 9	icuxoa.n.estornudar.
ilakaʒiw-i	WI 12	ilacatziui.n.torcerse alguna cosa assi como la pûta de alesna o cosa semejante.
ilakaʒiwki	WI 12	ilacatziuhqui.cosa torcida.
ilakaʒoa	WI 12	ilacatzoa.nitla.arrollar manta,estera papel, o cosa assi, o coger y reboluer hilo, o cordel al dedo & c.
ilakaʒtik	WI 12	tlacatztic.cosa torcida, o tuerta.
ilak-i	CVCV 30	ilaqui.anegarse la nao & c. o pasarse el papel, o cundir muncho la mancha de azeite, o de manteca.
ilakki	CVCV 30	ilacqui.barca, o canoa anegada.
ilaktia	CVCV 30	ilactia.nitla.anegar barca & c.
il-ka:w-a	MIS 36	ilcaua.nitla.oluidarse de alguna cosa.
il-ka:waltia	MIS 36	ilcaualtia.nicte.hazer oluidar algo a otro.
il-ka:wilia	MIS 36	ilcauilia.niqu.oluidarse del agrauio q̃ le hizierõ.
il-na:mik-i	MIS 37	tlalnamiqui.ni.acordarme de algo.
il-na:mikilia	MIS 37	ilnamiquilia.nicte.acordarseme deloque otro cometio o hizo.
λa-lna:mikini	MIS 37	tlalnamiquini.pensatiuo, o el que se acuerda de algo.
il-na:miktia	MIS 37	ilnamictia.nitetla.traer ala memoria.
i:lo:čtia	MIS 38	ilochtia.nite.tornar a otro, desde donde le auia ydoa acompañar.
i:lo:t-i	MIS 38	iloti.n.boluerse o tornarse de donde·yua.
ilpia	MIS 39	ilpia.nitla.atar alguna cosa.
il-piʒ-a	MIS 40	ilpitza.nitla.soplar.
iltek-i	MIS 41	iltequi.nitla.soruer algo.
ilwia	MIS 35	ilhuia.nicte.dezir algo a otro.
i:makas-i	MIS 42	imacaci.nite.temer a alguno.
i:makašilia	MIS 42	imacaxilia.ninote.tener respecto o temor reuerencial.
inam-a	CVCV 31	inama.nite.yr ademandar la deuda alacreedor.
i:na:y-a	MIS 43	inaya.nitla.encubrir o esconder algo.
iʔnekʷ-i	CVCV 32	inecui.nitla.oler algo.
iʔne:w-a	CVCV 33	ineua.niqu.herrar el golpe no acertãdo a lo que se tira.
iʔne:wia	CVCV 33	tlaneuia.nic.poner achaques o escusaciones, o tomarvna cosa por otra.

λa-i:ni	CVCV 20	tlaini.beuedor de pinolli.
ipoȼ-a	CVCV 34	ipotza, iputza.nin.regoldar.
iʔsa(-k)	CVCV 35	iça.n.despertar.
iʔsanaka(-k)	MIS 44	içanaca.sonar las hojas de mayz enla caña, quando estan secas.
isawaka(-k)	MIS 45	içauaca.n.estar ronco, o sonar las cosas huecas y vazias.
isawakak	MIS 45	içauacac.ronco.
isawaktik	MIS 45	içauactic.ronco.
isawia	MIS 46	içauia.nite.espantar, o escandalizar a otros.
isek-i	CVCV 36	icequi.nitla.tostar maiz, o garuanços en comalli.
iselia	MIS 47	icelia.nic.aficionarse, o aplicarse a algo.
isewia	MIS 48	iceuia.nite.confundir y auergonçar a otro.
iʔsika(-k)	CVCV 37	icica.n.carlear, acezar, o yjadear.
iʔsiw-i	CVCV 38	iciui.n.apresurarse, o darse priesa.
iʔsiwini	CVCV 38	iciuini.apresurado o acelerado.
iʔsiwitia	CVCV 38	iciuitia.nite.vel.nitla.dar priesa, o solicitar algo.
iʔsiwki	CVCV 38	iciuhqui.acelerado y apressurado.
iskalia	MIS 49	izcalia.nite.abiuar a otro, o doctrinarlo.
iskaltia	MIS 49	izcaltia.nite.criar niño.
isoliw-i	WI 13	içoliui.enuejecerse la ropa, los libros las esteras o cosas semejantes.
isoliwki	WI 13	içoliuhqui.cosa vieja o traida.
isoloa	WI 13	içoloa.niqu.maltratar o enuejecer las cosas dichas.
isoltik	WI 13	içoltic.manta vieja o libro & c.
isolwia	WI 13	içolhuia.nitetla.enuejecer algo a otro.
iso:λa(-k)	CVCV 39	içotla.nin.gomitar.
isλakalwia	MIS 50	iztlacalhuia.nitetla.prouar algo côtra otro falsamente.
isλakat-i	MIS 50	iztlacati.n.mentir.
isλakatki	MIS 50	iztlacatqui.mentiroso.
isλakawia	MIS 50	iztlacauia.nite.engañar a otro.
ista:k	YA 6	iztac.cosa blanca.
istakatilia	YA 6	iztacatilia.nitla.emblanquecer algo.
istalektik	WA 7	iztalectic.descolorido.
istale:wa(-k)	WA 7	iztaleua.n.pararse descolorido de temor.
istale:wak	WA 7	iztaleuac.descolorido.
istalia	YA 6	iztalia.nitla.dar lustre blanco.
istaloa	YA 6	iztaloa.nitla.blanquear algo.
istay(-)a(-k)	YA 6	iztaya.n.pararse blanco.
isakia	MIS 51	ixaquia.nitla.labrar de aguja, o remendar entre texendo con hilo.
iʔsamia	MIS 52	ixamia.nin.lauarse la cara.
iʔsika(-k)	MIS 53	ixica.reçumarse o salirse la vasija.

iš̌il–i	CVCV 40	ixili.nite.dar lançada o estocado, o aguijonearlas bestias.
i:š̌ima–ti	MIS 54	iximati.nite.conocer a otro.
iʔš̌itia	CVCV 35	ixitia.nite.despertar a otro.
iš̌ka(–k)	CVCV 41	ixca.nitla.vel.niqu.cozer loça, o asar hueuos, batatas, o cosa semejante.
i:š̌–kašoa	WI 18	ixcaxoa.nite.quebrar a otro el ojo.
iš̌kia	CVCV 41	ixquia.ninotla.vel.nicno.asar hueuos, o batatas para si, o cosas semejantes.
iš̌–kolew–a	MIS 73	ixcoleua.nitla.despegar algo.
iš̌–koloa	OA 17	ixcoloa.nitla.hazer algo sin consideracion niacuerdo.
i:š̌–kʷikʷiliw–i	WI 33	manzillarse.n, ixcuicuiliui.
iš̌–neliw–i	WI 45	ixneliui.reboluerse, o mezclarse vna cosa con otra.
iš̌oč̌tia	MIS 55	ixochtia.nin.gomitar.
iš̌pawia	MIS 56	ixpauia.nitete.acusar aotro.
i:š̌–λaʔ¢i:nia	NI 41	ixtlatzinia.nite.abofetear a otro.
iš̌–λaliw–i	MIS 172	ixtlaliui.n.henchirse algo de poluo.
iš̌λa:w–a	MIS 57	ixtlaua.nitla.pagar lo que se deue.
iš̌λa:w–i	MIS 57	ixtlaui.restituirse algo.
iš̌λa:wia	MIS 57	ixtlauia.nitla.atrauesar delante de otros.
iš̌te¢kaloa	OA 11	ixtetzcaloa.nitla.lamer algo.
iš̌tešoa	OA 12	ixtexoa.nitla.roer algo por ēcima.
i:š̌–to:soa	OA 53	ixtoçoa.n.velar o trasnochar.
iš̌wa(–k)	CVCV 42	ixua.nacer la planta, o brotar la semilla.
iš̌wi(–k)	CVCV 43	ixui.n.hartarse de vianda.
iš̌wia	CVCV 43	ixuia.nitla.niuelar con el ojo, o con astrolabio.
iš̌wik	CVCV 43	ixuic.harto de vianda.
iš̌witia	CVCV 43	ixuitia.nite.ahitar a otro.
iʔλakalwia	WI 14	itlacalhuia.nicte.dañar algo a otro.
iʔλakaw–i	WI 14	itlacaui.corromperse dañarse, o estragarse algo, o empollarse el hueuo.
iʔλakawki	WI 14	itlacauhqui.cosa dañada, o corrōpida, o muger reziempreñada, o hueuo huero y empollado.
iʔλakoa	WI 14	itlacoa.nitla.estregar o dañar algo.
iʔλan–i	CVCV 44	itlani.nitla.pedir algo.
iʔλanilia	CVCV 44	itlanilia.nitetla.pedir algo a otro.
iʔtalwia	WI 15	tlatalhuia.nite.ser procurador de otros, o hablar por ellos, fauoreciendolos y ayudandolos.
i:tia	CVCV 20	itia.nitetla.dar a beuer algū breuaje.
itki(–k)	CVCV 45	itqui.niqu.lleuar algo.
itkitia	CVCV 45	itquitia.nicte.embiar algo con otro a algun cabo.
iʔtoa	WI 15	itoa.niqu.dezir alguna cosa.
itonia	MIS 58	itonia.nin.sudar.

iʔtotia	MIS 59	itotia.nin.bailar.
itta(-k)	CVCV 46	itta.niqu.hallar lo q̃ se auia perdido, o lo q̃ se procura y busca, o mirar a otro.
ittitia	CVCV 46	ittitia.nitete.dar a conocer a otro, o mostraselo.
iwa(-ʔ)	CVCV 47	iua.nitla.embiar mensajero.
iwintia	MIS 60	iuintia.nin.emborracharse.
iwintik	MIS 60	iuintic.borracho.
iʔya:k	YA 7	iyac.cosa hedionda.
iyan-a	CVCV 48	iyana.nitla.esconder algo.
iyanilia	CVCV 48	iyanilia.nitetla.esconder alguna cosa de otros porque no la vea nadie.
iyaw-a	CVCV 49	iyaua.nitla.ofrecer algo en sacrificio a dios, o incensar.
iyawilia	CVCV 49	iyauilia.nitetla.ofrecer algo en sacrificio, leuantando en alto lo que se ofrece.
iʔya:y(-)a(-k)	YA 7	iyaya.n.heder, o tener mal olor.
iyes̆-i	CVCV 50	yexi.nin.peerse.
kad̸aktik	WA 8	catzactic.cosa suzia.
kad̸aktilia	WA 8	catzactilia.nitla.ensuziar algo.
kad̸aktiy(-)a(-k)	WA 8	catzactia.ni.pararse sucio.
kad̸a:w(-)a(-k)	WA 8	catzaua.ni.pararsesuzio.
kad̸a:w-a	WA 8	catzaua.nite.ensuziar a otro.
kad̸a:wak	WA 8	catzauac cosa suzia.
kakad̸a(-k)	OA 13	cacatza.nitla.atar fuertemente alguna cosa.
kakad̸oa	OA 13	cacatzoa.nino.desperezarse.
ka-kalad̸-a	NI 14	cacalatza.nitla.hazer ruido reboluiendo xicalas.
ka-kalaka(-k)	NI 14	cacalaca.sonar el caxcauel.
ka-kapad̸-a	NI 15	cacapatza.nitla.hazer ruido con los pantuflos quando andan.
ka-kapaka(-k)	NI 15	cacapaca.ni.sonar las chinelas quãdo andan con ellos.
ka-kas̆aktik	WA 11	cacaxactic.mantarala y maltexida, o cosa semejante, o cosa floxa y mal atada.
ka-kas̆altik	WA 11	cacaxaltic.manta rala y maltexida.
kakawaka(-k)	MIS 61	cacauaca.ni.tener gran destemplaça y calor enel cuerpo. tlacacauaca.hazer tiempo templado, mormullo de gente o hazer calor.
kakayac̆ilia	MIS 64	cacayachilia.nitetla, desboronar o desmigajar algo a otro.
kakayaka(-k)	MIS 64	cacayaca.desboronarse algo.
kakayakilia	MIS 64	cacayaquilia.nitetla.desboronar o desmigajar algo a otro.
kakayaktik	MIS 64	cacayactic.cosa rala, como manta, o arboleda.
kakaya:w-a	MIS 65	cacayaua. teca nino. burlar o escarnecer de otro, o engañarle.
kak-i	CVCV 51	caqui.nitla.oyr, entender, oescuchar.
kakilia	CVCV 51	caquilia.nicte.oyr lo que otros dizen.

kakisti(-k)	MIS 62	caquizti.ni.sonar, y oyrse bien el que habla, o canta.
kakistilia	MIS 62	caquiztilia.nitla.exponer, declarar, glosar o interpretar algo.
kaki:tia	CVCV 51	caquitia.nitetla.dar relacion de algo aotros, o notificarles algo, o hazer oyr alos sordos.
kak–solew–i	MIS 156	cacçoleui.ni.tener callos en los pies.
kala:n–i	NI 14	calani.reteñir el metal.
kala:nia	NI 14	calania.nitla.bruñir algo, o cutir o herirvna cosa con otra.
kama–caloa	OA 6	camachaloa.ni.abrir mucho la boca.
kamaktik	WA 9	camactic.cosa tierna y reziente.
kamana:loa	OA 14	camanaloa.ni.dezir chistes.
kamana:lwia	OA 14	camanalhuia.nite.enlabiar, o burlar de palabra.
kamawa(-k)	WA 9	camaua.pararse el mayz serazo.
kamawak	WA 9	camauac.cosa seraza.
kamilektik	MIS 63	camilectic.cosa morena, o fruta que pinta.
kamilewa(-k)	MIS 63	camileua.pitantar las cerezas, o la fruta, o pararse moreno.
kampašilwia	WI 16	campaxilhuia.nicte.arrebatar a otro algo para comer selo. campachilhuia.nicte.comer lo que arrebato a otro.
kampašoa	WI 16	campoxoa.nite.adentellar, o dar bocado. acacampaxoa.n.beuer agua arrojandola muchas vezes enla boca, con la mano.
kanaktik	WA 10	canactic.cosa delgada, como tabla.
kanaw–a	WA 10	canaua.nitla.adelgazar tablas.
kanawak	WA 10	canauac.cosa delgada.
kapa:n–i	NI 15	capani.cruxir, o restallar las coyunturas delos dedos quando los estiran.
kapa:nia	NI 15	capania.nitla.hazer ruido con los çapatos.
kapoɖaw–i	WI 17	caputzaui.pararse negro.
kapoɖawki	WI 17	caputzauhqui.cosa negra.
kapoɖtik	WI 17	caputztic.cosa negra.
kašan–i	NI 16	caxani.afloxarse lo atado.
kašania	NI 16	caxania.nitla.afloxar lo atado.
kašanilia	NI 16	caxanilia.nitetla.aliuiar a otro la carga o el tributo.
kašanki	NI 16	caxanqui.cosa floxa o mal atada.
kašawa(-k)	WA 11	caxaua.ni.tornarseflaco y sin carnes.
kašaw–a	WA 11	caxaua.nitla.afloxar algo.
kašawilia	WA 11	caxauilia.nitetla.aliuiar o disminuir la carga.
i:š–kašiw–i	WI 18	ixcaxiui.ni.quebrarseme el ojo.
i:š–kašoa	WI 18	ixcaxoa.nite.quebrar a otro el ojo.
ka:w–a	CVCV 52	caua.nitla.dexar algo, o lleuar alguna cosa a otra parte.
ka:waltia	CVCV 52	caualtia.nitetla.vedar a otro, o yrle ala mano.
ka:wia	CVCV 52	cauia.nicno.dexar algo para si el que reparte algo a otros.
kaya:w–a	MIS 65	engañar.tecaninocayaua.
kʷa–kayawa(-k)	MIS 66	quacayaua.ni.pelarsele la cabeça.

keȼ-a	CVCV 53	quetza.nino.leuantaarse el que estaua asentado. quetza.nite.detener, o hazer parar alque camina o hazer leuantar alq esta asentado.
keȼom-a	MIS 67	quetzuma.nite.adentellar, morder a otro.
λan-kečia	MIS 68	tlanquechia.nite.morder o dar dentellada sin sacar bocado.
kečilia	CVCV 53	tlaquechilia.nite.contar a otros fabulas o consejas.
keč-nawa(?)	MIS 110	quechnaua.nite.abraçar a otro, poniendole el braço sobre el cuello.
keč-panoa	WI 50	quechpanoa.nitla.lleuar otra qualquier cosaencima delos hombros.
ke-keȼom-a	MIS 67	quequetzuma.nite.adentellar, morder a otro.
kekeloa	WI 19	quequeloa.nite.hazer coxquillas a otro, o escarnecer y burlar de alguno.
kekelwia	WI 19	quequelhuia.nitetla.burlar, o escarnecer de alguno.
kekes-a	CVCV 55	quequeça.nitla.hollar o pisar algo.
kekešilia	CVCV 55	tlaquequexilia.nite.pisar el barro al ollero para que haga ollas & c.
kekeškiya(-k)	MIS 70	quequexquia.ni.tener comezon.
kekeškik	MIS 70	quequexquic.cosa que da comezon.
kekeyoka(-k)	MIS 70	quequeyoca.ni.tener comezon.
keločaw-i	WI 20	quelochaui.ni.marchitarse.
keločawki	WI 20	quelochauhqui.cosa marchita.
kelon-i	MIS 69	queloni.desencasarse.
kelonki	MIS 69	quelonqui.desencasarse algun huesso.
ke:m-i	CVCV 54	quemi.nic.ponerse manta o capa, o traerla puesta.
ke:ntia	CVCV 54	quentia.nite.cubrir manta, o capa a otro.
kiȼkia	MIS 71	teteuhquitzquia.nitla.tener o apretar algo reziamēte cōlas manos.
ki-kinaȼ-a	NI 17	quiquinatza.nite.rifar el cauallo.
ki-kinaka(-k)	NI 17	quiquinaca.ni.gemir con dolor.
λan-ki-kis-i	OA 15	tlanquiquici.ni.siluar o chiflar.
ki-kisoa	OA 15	quiquiçoa.ni.tocar, o tañer trompeta.
kimiloa	WI 21	quimiloa.nitla.liar, o emboluer algo en manta, o en cosa semejante.
kimilwia	WI 21	quimilhuia.nitetla.emboluerle, o liarle algo a otro.
ki:s-a	CVCV 56	quiça.ni.salir fuera de casa.
ki:sani	CVCV 56	quiçani.salido fuera de casa o el que sale.
ki:štia	CVCV 56	quixtia.nitla.sacar algo fuera de casa, odesempeñar algo.
ki-yaw-i	CVCV 148	quiaui.llouer.
koč-i	CVCV 57	cochi.ni.dormir.
kočini	CVCV 57	cochini.dormilon.
kočitia	CVCV 57	cochitia.nite.hazer dormir a alguno.
koč-kama-čaloa	OA 7	cochcamachaloa.ni.bocezar.
kočki	CVCV 57	cochqui.dormido.

kokoa	YA 8	cocoa.nite.lastimar a otro.
kokoɟoa	OA 16	cocotzoa.ni.correr ligeramente.
kokok	YA 8	cococ.cosa que quema y abrasa la boca.
kokolia	YA 8	cocolia.nite.aborrecer o querer mal aotro.
ko-koločoa	WI 25	cocolochoa.nitla.reburujar manta, papel, o cosa semejante.
ko-koločtik	WI 25	cocolochtic.cosa crespa.
kokoloti(-k)	MIS 72	cocoloti.ni.pararse flaco yseco.
kokolotik	MIS 72	cocolotic.cosa flaca y seca.
kokolotiy-a	MIS 72	cocolotia.nite.enflaquecer a otro.
ko-komoɟ-a	NI 18	cocomotza.nitla.hazer estruendo con los pies.
ko-komoka(-k)	NI 18	cocomoca.hazer ruido la llama.
ko-komoltik	WI 26	cocomoltic.lugar lleno de barrancos.
kokopew-i	MIS 74	cocopeui.ni.caerseme la caspa, o las postillas.
kokoški	YA 8	cocoxqui.enfermo.
ko-košoka(-k)	NI 19	cocoxoca.zonglotear, o baçucar la vasija.
ko-košo:nia	NI 19	cocoxonia.nitla.enxaguar la vasija.
ko-kotoɟ-a	NI 20	cocototza.nitla.cortar algo muy menudo.
ko-kotoɟawki	WI 28	cocototzauhqui.tollido, o gato.
ko-kotoka(-k)	NI 20	cocotoca.quebrarse o despedaçarse el hilo la manta, o roperse la red & c.
ko-kotoktik	NI 20	cocotoctic.cosa quebrada.
kokoy-a	YA 8	cocoya.ni.estar enfermo.
iš-kolew-a	MIS 73	ixcoleua.nitla.despegar algo.
ko:liw-i	WI 22	coliui.torcerse, o acostarse la pared.
koliwki	WI 22	coliuhqui.cosa torcida, o acostada.
koloa	WI 22	coloa.nitla.encoruar, o entortar algo, o rodear yendo camino.
čite-koloa	WI 23	chitecoloa.nitla.hazer aros, o cosa semejante.
iš-koloa	OA 17	ixcoloa.nitla.hazer algo sin consideracion ni acuerdo.
koločaw-i	WI 25	colochaui.arrugarse la ropa.
koltik	WI 22	cultic.cosa tuerta o torcida, assi como camino, arbol o vara & c.
kolwia	WI 22	culhuia.nitetla.lleuar a otro por rodeos a alguna parte, o rodear por no passar por donde esta alguno.
komoliw-i	WI 26	comoliui.hazerse barrancoso lo que era llano.
komoloa	WI 26	comoloa.nitla.hazer hoyos, o barrancos.
komo:naltia	NI 18	comonaltia.nitla.hazer que se encienda y echo llama el fuego.
komo:n-i	NI 18	comoni.encenderse y echar llama el fuego.
komo:nia	NI 18	comonia.nite.alterar, o alborotar la gente.
komonki	NI 18	comonqui.fuego encendido y con llama.
kopičaw-i	WI 27	copichaui.acucharrarse algo, o acanalarse.
ma-kopičoa	WI 27	macopichoa.nitla.arrollar conla mano papel, o cosa semejante.

kopičtik	WI 27	copichtic.cosa acucharrada.
siyo-kopiktik	MIS 76	ciyocopictic.el que tiene descolorido, o demudado el rostro de miedo, de espanto o de ēfermedad.
kopin-a	MIS 75	copina.nitla.sacar vna cosa de otra, o por otra, o sacar algo con molde, asi como adobes o vasos.
siyo-kopin-i	MIS 76	ciyocopini.ni.demudarse el rostro de miedo, de espanto o de ēfermedad.
siyo-kopinki	MIS 76	ciyocopinqui.demudado el rostro de miedo.
kosawiy-a	YA 9	coçauia.ni.pararse amarillo.
kosawki	YA 9	coçauhqui.cosa amarilla o ruuia.
kostik	YA 9	cuztic.cosa amarilla.
kostiya(-k)	YA 9	custia.pararse amarillo.
košo:n-i	NI 19	coxoni.zonglotear, o baçucar la vasija.
košonki	NI 19	coxonqui.cosa seca y muy molida.
kotaloa	OA 18	cotaloa.ni.cantar la rana, o gruñir el cochino.
kotoḋalwia	WI 28	cototzalhuia.nitetla.plegar algo a otro, o arrugarle alguna cosa.
kotoḋaw-i	WI 28	cototzaui.tullirse.
kotoḋoa	WI 28	cototzoa.nitla.encoger la costura.
kotoḋtik	WI 28	cototztic.encogido, o lleno de empacho.
koto:n-a	NI 20	cotona.nitla.cortar o despedaçar algo.
koto:n-i	NI 20	cotoni.quebrarse la cuerda o el hilo soga & c.
koto:nia	NI 20	cotonia.nic.dar parte de su haziēdaa otro.
koto:nilia	NI 20	cotonilia.nicte.partir algo con otro.
kotonki	NI 20	cotonqui metztli.luna demediada o mēguada.
ko:w-a	CVCV 58	coua.nitla.comprar algo.
kowasiw-i	WI 29	coaciui.ni.tener gota, o perlesia.
kowasiwki	WI 29	coaciuhqui.gafo, gotoso, perlatico o tollido.
ko:wia	CVCV 58	couia.nicno.comprar algo para si.
ko:wilia	CVCV 58	couilia.nitetla.comprar algo para otro.
koyawa(-k)	WA 12	coyaua.ensancharse el agujero.
koyaw-a	WA 12	coyaua.nitla.ensanchar algun agujero.
koyawak	WA 12	coyauac.cosa ancha.
koyoktik	NI 21	coyoctic.agujero.
koyon-i	NI 21	cuyuni.agujerarse o horadarse algo.
koyonia	NI 21	coyonia.nitla.agujerar, o horadar algo.
koyonki	NI 21	coyonqui.agujero, o horado.
k^{w}a(-ʔ)	CVCV 59	qua.nite.morder, o comer a otro. qua.nitla.comer algo.
k^{w}a-k^{w}alaka(-k)	NI 22	quaqualaca.tronar.

kʷala:n-i	NI 22	qualani.ni.enojarme.
kʷala:nia	NI 22	qualania.nite.enojar a otro.
kʷala:nini	NI 22	qualanini.persona que se enoja muchas vezes, o yracundo.
kʷala:nitia	NI 22	qualanitia.nite, dar enojo a otros.
kʷala:nki	NI 22	qualanqui.el que esta enojado.
kʷala:ntia	NI 22	qualantia.nite.enojar a otro.
kʷaltia	CVCV 59	tlaqualtia.nite.dar de comer a otro.
λa-kʷa:ni	CVCV 59	tlaquani.comedor.
kʷeakšolwia	MIS 77	cueacxolhuia.nitla.saltar el arroyo.
kʷečaktik	WA 13	cuechactic.cosa humida.
kʷečawa(-k)	WA 13	cuechaua.pararse algo humido.
kʷečaw-a	WA 13	cuechaua.nitla.relentecer o humedecer algo.
kʷečawak	WA 13	cuechauac.cosa lienta y humida.
te-kʷe:čilwia	WI 30	tecuechilhuia.nitetla.moler mucho alguna cosa para otro.
kʷečinia	OA 19	cuechinia.nino mouerse o menearse.
kʷe:čoa	WI 30	cuechoa.nitla.heñir la massa, o moler mucho alguna cosa.
te-kʷe:čoa	WI 30	tecuechoa.nitla.moler muy mucho alguna cosa.
kʷečtik	WI 30	cuechtic.cosa muy molida.
kʷe:čtilia	WI 30	cuechtilia.nitla.desmenuzar algo, omolerlo mucho.
kʷeikšolwia	MIS 77	cueicxolhuia.nitla.saltar arroyo, charco, acequia o cosa semejante.
kʷekšolwia	MIS 77	cuecxolhuia.nitla.saltar arroyo, charco.
kʷe-kʷeȼoa	OA 19	cuecuetzoa.nitla.rebullir, o menear algo.
kʷe-kʷeȼoka(-k)	OA 19	cuecuetzoca.ni.tener comezon en el cuerpo.
kʷe-kʷečkilia	OA 19	cuecuechquilia.nitla.menear arbol o cosa assi.
kʷe-kʷečoa	OA 19	cuecuechoa.ni.hazer estremecer y temblar aotro.
kʷekʷenot-i	MIS 78	cuccuenoti.ni.ensoberuecerse.
kʷekʷenotki	MIS 78	cuecuenotqui.soberuio y presuntuoso.
kʷekʷenowia	MIS 78	cuecuenouia.nech.ser me alguna cosa ocasion de ensoberue·cerme.
kʷe-kʷepoka(-k)	NI 23	cuecuepoca.brotar las flores.
kʷe-kʷeλaȼ-a	NI 24	cuecuetlatza.nitla.blādear lança.
kʷe-kʷeλaka(-k)	NI 24	cuecuetlaca.hazer mucho ruido la llama.
kʷe-kʷeyoka(-k)	NI 25	cuecueyoca.ni.relumbrar o reluzir.
kʷeliw-i	WI 31	cueliui.ni.entortarse o torcerse.
kʷeloa	WI 31	cueloa.nitla.doblegar vara, o cosa semejante.
waw-kʷem-a	CVCV 60	vauhcuema.ni.sembrar semilla de bledos.
kʷenčolwia	MIS 77	cuĕcholhuia.nitla.saltar arroyo.
kʷep-a	CVCV 61	cuepa.nitla.boluer algo, o dar razon de si, o escusarse.
λa-kʷepani	CVCV 61	tlacuepani.el que se escusa no queriendo hazer lo que le ruegan o mandan & c.
kʷepilia	CVCV 61	cuepilia.nitetla.cengarse, o restituir lo ageno.

kʷepiltia	CVCV 61	cuepiltia.nicte.vengarse, dar algo en retorno, responder aproposito.
kʷepo:naltia	NI 23	cueponaltia.nite.hazer resplandecer a otro.
kʷepo:n-i	NI 23	cueponi.ni.dar estallido el hueuo quando lo asan, o abrirse y abrotar la flor, o la rosa, o resplandecer alguna cosa.
kʷeponki	NI 23	cueponqui.hueuo rebētado, o flor abierta, o cosa resplandeciente.
kʷeλalwia	MIS 79	cuetlalhuia.nitla.marchitar algo.
kʷeλan-i	NI 24	cuetlani.mitigarse, o arder el fuego echando desi gran llama.
kʷeλania	NI 24	cuetlania.nitla.quebrar palos.
kʷeλanki	NI 24	cuetlanqui.llama que haze gran ruido.
kʷeλašiw-i	WI 32	cuetlaxiui.ni.desmayar, o emperezar.
kʷeλašiwini	WI 32	cuetlaxiuini.desmayado assi, o descoraznado.
kʷeλašiwki	WI 32	cuetlaxiuhqui.desmayado, o descoraznado.
kʷeλašoa	WI 32	cuetlaxoa.nite.desmayar a otro.
kʷeλawiy(-)a(-k)	MIS 79	cuetlauia.marchitarse alguna cosa verde.
kʷeλawki	MIS 79	cuetlauhqui.marchito.olacio.
kʷeyon-i	NI 25	cueyoni.ni.relumbrar o reluzir.
kʷi:(-k)	CVCV 62	cui.nic.tomar algo, o tener parte el hombre cõ la muger.
λan-kʷiɟoa	OA 20	tlancuitzoa.ni.regañar y mostrar los dientes el perro.
kʷi:ka(-k)	CVCV 63	cuica.ni.cantar el cantor, ochirriar las aues.
kʷi:kani	CVCV 63	cuicani.cantor.
kʷi:katia	CVCV 63	cuicatia.nite.dar musica a otros.
λan-kʷi-kʷiɟtik	OA 20	tlancuicuitztic.dentudo.
i:š-kʷikʷiliw-i	WI 33	manzillarse.n,ixcuicuiliui.
i:š-kʷikʷiliwki	WI 33	ixcuicuiliuhqui.manzillado enla cara.
i:š-kʷikʷiloa	WI 33	ixcuicuiloa.nite.manzillar.
kʷi:lia	CVCV 62	cuilia.nicte.tomar algo a otro.
λe-kʷiloa	OA 41	tlecuiloa.nite.quemar.
kʷilto:noa	OA 21	cuiltonoa.nite.ēriꝗcer aotro.
ten-tete-kʷinaw-i	WI 34	tentetecuinaui.mellarse o embotarse el cuchillo o cosa assi.
tete-kʷinawki	WI 34	tetecuinauhqui.cosa mellada.
ten-tete-kʷinoa	WI 34	tentetecuinoa.nitla.mellar alguna cosa.
tete-kʷintik	WI 34	tetecuintic.cosa roma despuntada, o mellada.
kʷiλašoa	OA 22	cuitlaxoa.nitla.relentecer, o humedecer algo.
kʷiλawia	MIS 80	cuitlauia.ninote.tener cuydado de otros.
kʷiy(-)a(-k)	CVCV 64	tecuia.nitla.deuanar, emboluer, o liar algo. deuanar algo.ni, tlacuiya. nitla, tecuiya.
ma(-ʔ)	CVCV 65	ma.nitla.caçar o captiuar.
maɟoa	OA 23	matzoa.nitla.hazer bollos.
ma-ča-čakaliw-i	MIS 20	machachacaliui.ni.tener callos enlas manos.

ma–ča–čakaliwini	MIS 20	machachacaliuini. el q̃ tiene callos enlas manos.
ma–čakayoliw–i	MIS 20	machacayoliui.ni.tener callos enlas manos.
mačan–a	MIS 81	machana.nitla.entretexer algo como seto de cañas trençadas.
mačanki	MIS 81	machanqui.cosa entretexida.
mačilia	CVCV 70	machilia.nicte.saber defectos agenos.
mačisti(–k)	MIS 82	machizti.cosa que se sabe o suena.
mačistia	MIS 82	machiztia.nicte.publicar, notificar o hazer saber algo a otros.
mačistiya(–k)	MIS 82	machiztia.cosa que se sabe o suena.
mačitia	CVCV 70	machitia.nic.hazer saber onotificar algo a otros.
mačtia	CVCV 70	machtia.nite.enseñar o predicar.
maka(–k)	CVCV 66	maca.nicte.dar algo a otro, o restituir.
ma–kaw–a	MIS 83	macaua.nitla.otorgar algo, o conceder, o saltar algo del mano.
ma–kawilia	MIS 83	macauilia.nitetla.otorgar, o conceder algo a otro.
makis–a	MIS 84	maquiça ni.escaparse.
makiski	MIS 84	maquizqui.el que se saluo de algun peligro.
makištia	MIS 84	maquixtia.nite.librar, o saluer a otro.
makočoa	WI 36	macochoa.mo.abraçarse dos poniendo elvnola cabeça eñl cuello del otro.
yo:l–malakačiw–i	WI 35	yolmalacachiui.ni.deuanear.
malakačoa	WI 35	malacachoa.nitla.boluer algo al derredor.
ma:lia	CVCV 65	tlamalia.nite.caçar o captiuar para otro.
mali:n–a	MIS 86	malina.nitla.torcer cordel ē cima del muslo.
mali:nki	MIS 86	malinqui.cosa torcida, como cordel.
malkočalwia	WI 36	malcochalhuia.nimitzno.abraçar por el cuello a otro.
malkočoa	WI 36	malcochoa.nitla.abarcar algo.
ma:ltia	CVCV 65	maltia.nite.captiuar para otro.
malwia	MIS 87	malhuia.nite.guardar la honra a otro, o tratarlo bien.
ma:ma(–ʔ)	CVCV 68	mama.nitla.lleuar carga acuestas.
mamačoλa(–k)	MIS 85	mamachotla.nite.lisongear.
mamal–i	CVCV 67	mamali.nitla.taladrar, o barrenar algo.
ma:maltia	CVCV 68	mamaltia.nitetla.cargar a otro, o encargarle algo.
man–a	CVCV 69	mana.nic.poner enel suelo plato, o cosas llanas, o hazer tortillas de mayz, antes que las cuezã enel comalli.
manalwia	MIS 87	manalhuia.nitla.tratar bien alguna cosa.
manawia	MIS 88	manauia.nite.defendar a otro.
man–i	CVCV 69	mani.nican.aqui esta el libro, plato, o lebrillo cõ agua & c.
manilia	CVCV 69	manilia.nitetla.ofrecer o poner algo ante otro.
m–a:nki	CVCV 3	manqui.crecido en edad.
ma–pe¢kolwia	WI 54	mapetzcolhuia.nic.deslizarse me algo delas manos.
ma–pičoa	OA 34	mapichoa.ni.chiflar cõel dedo.
masasiw–i	MIS 89	maçaciui.ni.deuanear, o desuariar.

masew–a	MIS 91	maceua.ni.bailar, odançar.
maʔse:w–a	MIS 90	maceua.nic.conseguir, o merecerlo desseado.
maʔse:waltia	MIS 90	maceualtia.nitetla.dar a merecer, o dar penitencia a otro.
maʔse:wia	MIS 90	maceuia.ninotla.merecer o alcançar lo desseado.
masewki	MIS 91	maceuhqui baylador o dançador.
mašaliw–i	WI 37	maxaliui.diuidirse el camino en encruzijadas, o el rio en arroyos.
mašaliw–i	WI 37A	maxaliui.ni.estar ceuado o encarniçado en algo.
mašaliwini	WI 37A	maxaliuini.ceuado o encarniçado.
mašaloa	WI 37	maxaloa.nitla.apartarse de vn camino para seguir otro.
mašaloa	WI 37 A	maxaloa.nite.ceuar a otro con algo.
mašaltik	WI 37	maxaltic.cosa diuisa como camino, o horcajadura de arbol. &c.
mašalwia	WI 37	maxalhuia.nite.sacarle algo a otro.
ma–λaλaɟ–a	MIS 180	matlatlatza.nino.dar palmadas de plazer.
mateloa	WI 38	mateloa.nite.herir a otro conla mano.
matelwia	WI 38	matelhuia.nitetla.vntar algo a otro.
mat–i	CVCV 70	mati.nic.saber algo.
matiloa	WI 38	matiloa.nite.vntar o vngir o refregar.
λa–matini	CVCV 70	tlamatini.sabio.
λa–matki	CVCV 70	tlamatqui.embaucador.
ma–tomo:n–i	NI 46	matomoni.no.hazersele ampollas en las manos.
maw–a	CVCV 71	maua.nite.inficionar, o pegar enfermedad contagiosa a otro.
te:–mawani	CVCV 71	temauani.inficionador.
maw–i	CVCV 72	maui.ni.temer.
mawisoa	OA 24	mauiçoa.nitla.admirarse.
mawisλa(–k)	OA 24	mauiztla.nite.honrar a otro.
mawisti(–k)	OA 24	mauizti.ni.ser estimado.
mawistik	OA 24	mauiztic.cosa marauillosa y de estima.
mawistilia	OA 24	mauztilia.nite.honrar y respectar a otro.
mawki	CVCV 72	mauhqui.temeroso, o couarde.
mawtia	CVCV 72	mauhtia.nite.espantar a otro.
maya:n–a	MIS 92	mayana.ni.tener hambre. mayana.nic.tener hambre o desseo de cosa particular.
maya:naltia	MIS 92	mayanaltia nite.matar de hambre a otro.
mayaw–i	MIS 93	mayaui.nic.echar, o arrojar algo por ay.
mekania	MIS 94	mecania.nite.ahorcar a otro.
melaktik	WA 14	melactic.cosa derecha y luenga.
melastik	WA 14	melaztic.cosa derecha y luenga.
melaw–a	WA 14	melaua.nitla.caminar derecho, passando delargo sin detenerse en algun lugar.
melawak	WA 14	melauac cuicatl.canto llano.

melawilia	WA 14	melauilia.nicte.declarar algo a otro.
meme(-?)	CVCV 68	meme.nitla.lleuar carga acuestas.
mey-a	CVCV 73	meya.manar la fuente, o cosa semejante.
mik-i	CVCV 74	miqui.ni.morir.
mikini	CVCV 74	miquini.cosa mortal. s.que muere.
mikiyantia	MIS 95	miquiantia.nicte.encargar a otro algun negocio.
mikki	CVCV 74	micqui.muerto, o deffuncto.
mikkeλ	CVCV 74	micquetl.cuerpo de hombre muerto.
miktia	CVCV 74	mictia.nite.matar, o maltratar a otro.
mimiliw-i	WI 39	mimiliui.abotonarse la flor, o crecer el vientre dela que esta preñada.
mimiliwki	WI 39	mimiliuhqui.cosa rolliza, como pilar & c.
mimiloa	WI 39	mimiloa.nitla.trastornar o derrocar cantaro, o cosa semejante.
mimiltik	WI 39	mimiltic.cosa rolliza, como pilar & c.
mi:n-a	CVCV 75	mina.nitla.tirar saeta, o garrocha. tlamina.ni.tirar con arco o ballesta, o tirar harpon o vara & c.
λa-mi:nani	CVCV 75	tlaminani.el que tira con arco, o harpon & c.
λa-mi:nki	CVCV 75	tlaminqui.el que tira con arco, o harpon & c.
mi:šiw-i	MIS 96	mixiui.ni.parir la muger.
mi:šiwitia	MIS 96	mixiuitia.nite.partear.
mi:šiwki	MIS 96	mixiuhqui.parida.
molew-a	MIS 99	moleua.nitla.amollentar la tierra.
moloktik	NI 26	moloctic.lana mollida.
molo:n-i	NI 26	moloni.manar la fuente.
molo:nia	NI 26	molonia.nitla.mollir lana o pluma.
molonki	NI 26	molonqui.cosa mollida, o cosa muy molida y seca.
momoȼalwia	WI 40	momotzalhuia.nitetla.roçar, o repelar pluma, o cosa semejante.
momoȼin-i	MIS 96A	resquebrajarse.ni,momotzini.
momoȼinki	MIS 96A	momotzinqui.resquebrajado.
momoȼoa	WI 40	momotzoa.nitetla.roçar, o coger yeruas cōla mano sin arrancarlas de rayz.
momoȼka(-k)	MIS 97	momotzca.tener grasa el caldo, o la misma grasa que reluze.
momoȼkʷi(-k)	MIS 98	momotzcui.ni.resquebrajarse.
mo-moloȼ-a	NI 26	momolotza.nitla.hazer espuma enel agua.
momoločwia	MIS 100	momolochuia.nitla.menear, o ēturbiar el agua o cosa semejante.
mo-moloka(-k)	NI 26	momoloca.bullir, o heruir y manar el agua en los fuentes conel arena.
mo-moyawa(-k)	WA 15	momoyaua.pasarse el papel, esparzirse, o enturbiarse el agua.
mo-moyaw-a	WA 15	momoyaua.nitla.desparramar algo.

mo-moyaw-i	WA 15	momoyaui.diuidirse los que estauan juntos.
mo-moyawki	WA 15	momoyauhqui.despoblado pueblo.
mo:λa(-k)	CVCV 76	motla.nitla.tirar con piedra.
motošawilia	MIS 101	motoxauilia.nite.derribar o otro entierra.
moyaktik	WA 15	moyactic.mancha cundida.
moyawa(-k)	WA 15	moyaua.pasarse el papel, o cundir la mancha, o enturbiarse el agua.
moyaw-a	WA 15	moyaua.nitla.enturbiar el agua, o otra cosa liquida.
moyon-i	NI 48	moyoni.bullir las hormigas gusanos o cosa semejante.
naka-ȼaȼaiw-i	MIS 13	nacatzatzaiui.ni.ensordecer.
naka-ȼaȼati(-k)	MIS 13	nacatzatzati.ni.ensordecer. tzatzati.ni.ensordecer.
naka-ȼaȼatilia	MIS 13	nacatzatzatilia.nite.hazer sordo a otro.
nakasan-a	MIS 103	nacazana.nitla.poner algo en quadra.
nakas-tapaltik	WI 79	nacaztapaltic.sordo.
nakti-a	MIS 104	nactia.nite.detener a otro.
namaka(-k)	MIS 105	namaca.nitla.vender algo.
na:mik-i	MIS 106	namiqui.nite.salir a recebir al que viene, o encontrar con alguno, o contender cõ otros.
il-na:mik-i	MIS 37	tlalnamiqui.ni.acordarme de algo.
na:miktia	MIS 106	namictia.nino.casarse.
na:miktilia	MIS 106	namictilia.nimitz.pagar le conforme alo q̃ trabajo.
na:moya:(-k)	MIS 107	namoya.nitla.arrebatar o robar algo.
na:moya:lia	MIS 107	namoyalia.nitetla.robar a alguno.
nan-a	CVCV 77	nana.ni.abstenerse de algo o yr se ala mano.
ciciwal-nanaȼiw-i	WI 41	chichiualnanatziui.ni.tener retesadas las tetas.
nanaȼka(-k)	MIS 102	nanatzca.rechinar, o cruxir algo.
nanaȼoa	WI 41	nanatzoa.nino.pararse gordo, o engordarse.
nanalȼa(-k)	NI 27	nanaltza.nitla.ladrar el perro.
nanaliw-i	NI 27	tozcananaliui.ni.enrõquecerse.
nanalka(-k)	NI 27	nanalca.graznar el ansar, ladrar o regañar ygruñir el perro o el puerco.
na:nkilia	MIS 108	nanquilia.nite.responder.
napaloa	WI 42	napaloa.nitla.tomar, o lleuar algo enlos braços.
napalwia	WI 42	napalhuia.nitetla.lleuar algo enlas manos, o en los braços para otro.
keč-nawa(-?)	MIS 110	quechnaua.nite.abraçar a otro, poniendole el braço sobre el cuello.
nawatek-i	MIS 110	nauatequi.nite.abraçar a otro.
nawat-i	MIS 109	nauati.ni.hablar alto, o tener buen sonido la cãpana.
nawatia	MIS 109	nauatia.nite.mandar algo a otros.
nečikalwia	WI 43	nechicalhuia.ninotla.allegar algo para su persona.

noloa	WI 47	noloa.nitla.doblegar, o entortar algo.
noltik	WI 47	noltic.cosa doblegada.
nolwia	WI 47	nolhuia.nitetla.doblegar, o entortar algo aotro.
nonti(-k)	MIS 115	nonti.ni.hazerse mudo.
oȼti(-k)	MIS 116	otzti.n.empreñarse.
oȼtia	MIS 116	otztia.nite.empreñar a otra.
oȼtiya(-k)	MIS 116	otztia.n.empreñarse.
oȼpa:n-a	MIS 117	tlachpana.ni.barrer.
očtilia	MIS 118	ochtilia.nino.forcejar.
okčotia	MIS 119	occhotia.nin.casarse la muger. occhotia.nitla.casar el padre asu hija.
okičwatia	MIS 120	oquichuatia.nin.casarse la muger.
oli:nia	MIS 121	olinia.nin.menearse, o mouerse.
ollam-a	MIS 122	ollama.n.jugar ala pelota con las nalgas.
ollamia	MIS 122	ollamia.nite.jugar con otros, a la pelota con las nalgas.
ololoa	OA 26	ololoa.nic.hazer alguna cosa redonda como bola.
ololtik	OA 26	ololtic.cosa redonda como bola.
omelia	MIS 123	omelia.nitla.doblar, o torcer vn hilo con otro.
omi-sawitia	CVCV 105	omiçauitia.nite.enflaquecer a otro en los huessos.
omi-sawki	CVCV 105	omiçauhqui.flaca cosa que esta en los huessos.
on-o-k	CVCV 82	onoc.n.estar echada, o tendida alguna persona, o madero, o cosa semejante que sea larga.
oomi-saw-i	CVCV 105	oomiçaui.n.pararse muy flaco en los huessos.
opo:w-a	MIS 124	opoa.nic.chocarrear.
osa(-k)	CVCV 83	oça.nite.vntar o embixar a otro.
oskoa	OA 27	ozcoa.ni.callentarse al fuego.
o:y-a	CVCV 84	desgranar mayz, granada, piña de pinones o cosas semejantes.nitlaoya.
pa(-ʔ)	CVCV 85	pa.nitla.teñiralgo cõ tinta o colores de tintoreros.
paȼaktik	WA 16	patzactic.trigo, mayz, o cacao añublado.
paȼaw-a	WA 16	patzaua.nitla.machucar, o estrujar fruta.
paȼawak	WA 16	patzauac.trigo, o mayz añublado.
pa:ȼiw-i	WI 48	patziui.abollarse alguna cosa, o deshincharse el encordio & c.
pa:ȼiwki	WI 48	patziuhqui.cosa abollada, o cosa deshinchada.
pa:ȼka(-k)	MIS 125	patzca.nitla.espremir, o sacar çumo de alguna cosa.
pa:ȼkilia	MIS 125	patzquilia.nitetla.sacar çumo de alguna cosa para otro.
pa:ȼoa	WI 48	patzoa.nite.apretar a otro, o deshazer y apocar lo que otro dize o haze.
pa:ȼtik	WI 48	patztic.cosa abollada, o cosa blanda, assi como fruta muy madura.
pačilwia	WI 49	pachilhuia.nitetla.apretar o apezgar algo a otro.
pačiw-i	MIS 126	pachiui.ni.estar satisfecho.

papačka(-k)	MIS 127	papachca.cortarse el almendrada.
papalka	OA 28	papalca.ni.parlar mucho.
papaloa	OA 28	papaloa.nitla.lamer algo.
pa-paλaka(-k)	NI 28	papatlaca.ni.rebolar el aue.
papawia	MIS 134	papauia.nitla.dar alaridos cõ bozes los que baylan enel mitote.
pasoloa	OA 30	paçoloa.nitla.reborujar, enhetrar o marañar algo.
pasoltik	OA 30	paçoltic.cosa marañada.
paλa(-k)	CVCV 89	patla.nite.sustituir a alguno en lugar de otro.
pa:λa(-k)	CVCV 90	patla.nitla.cambiar, o trocar algo, o desleir, o deshazer algo, asi como açucar, sal nieue, carãbano & c.
paλačtik	WA 17	patlachtic.cosa ancha.
paλa:n-i	NI 28	patlani.ni.bolar.
paλašim-a	MIS 131	patlaxima.nitla.labrar madera.
paλawa(-k)	WA 17	patlaua.ensancharse lo angosto.
paλaw-a	WA 17	patlaua.nitla.ensanchar camino.
paλawak	WA 17	patlauac.cosa ancha.
pa:t-i	CVCV 90	pati.deshazerse la sal. nieue, o yelo y carambano o hazerse agua y derretirse.
pa?ti(-k)	CVCV 91	pati.ni.conualecer y sanar el enfermo.
patia	MIS 132	patia.nitla.restaurar, adobar, o enmendar algo.
pa?tia	CVCV 91	patia.nite.curar, o sanar a otro.
λa-patiani	MIS 132	tlapatiani.restaurador, o reformador de algo.
pa?tik	CVCV 91	patic.el que esta ya sano dela enfermedad que tenia.
patilia	MIS 132	tlapatilia.nite.enmendar o reformar algo a otro.
patiliw-i	WI 52	patiliui.desencasarse.
patiliwki	WI 52	patiliuhqui.cosa desencasada, ocosa desigual assi como algun huesso.
pa?tini	CVCV 91	patini.cosa curable y que puede sanar.
patoa	OA 31	patoa.ni.jugar alosdados, o ajuego de fortuna.
pa:was-i	MIS 133	pauaci.nitla.cozer algo en olla.
payan-a	MIS 135	payana.nitla.quebrantar terrones, o desmenuzar algo.
payawilia	MIS 135	payauilia.nitetla.desmigajar algo para dar de comer alas gallinas.
pe¢ilwia	WI 53	petzilhuia.nitetla.bruñir algo a otro.
pe¢iw-i	WI 53	petziui.pararse muy luzio lo bruñido, o acecalado.
pe¢kaw-i	WI 54	petzcaui.deslizarse, o deleznarse alguna cosa entre las manos, assi como la anguilla, o xabon mojado.
pe¢koa	WI 54	petzcoa.nino.resualar, deslizarse, o descabullirse de entre otros.
ma-pe¢kolwia	WI 54	mapetzcolhuia.nic.deslizarse me algo delas manos.
pe¢oa	WI 53	petzoa.nitla.acecalar bruñir, o luzir algo.
ši-pe¢tik	WI 53	xipetztic.cosa lisa.
pe¢tiya(-k)	WI 53	petztia.pararse muy liso, o luzio, lo acecalado o bruñido.
pe-pe¢ka(-k)	WI 53	pepetzca.reluzir la seda olas plumas ricas.

pe-peȼtik	WI 53	pepetztic.cosa muy lisa que reluze.
pepeĉilwia	WI 55	pepechilhuia.nitetla.embarrarle a otro las paredes, o cerrarle a piedra lodo algun agujero, o abertura que en ellas auia, o emparamentarle algo.
pepeĉoa	WI 55	pepechoa.nitla.atapar o cerrar algun agujero de pared a piedra lodo.
pe?pen-a	CVCV 92	pepena.nitla.escoger algo, o arrebañar y recoger lo esparzido por el suelo.
pe-peλa(-k)	CVCV 93	pepetla.nite.peynar a otro, o halagarle trayendole la mano sobre la cabeça, y assentandole el cabello con ella.
pe-peλaka(-k)	NI 30	pepetlaca.ni.resplandecer o relumbrar.
pe-peλakiltia	NI 30	pepetlaquiltia.nite.hazer resplandecer a otro.
pe-peλaw-a	MIS 137	pepetlaua.nite.despojar o desnudar a otro.
pe-peyaw-a	WA 18	pepeyaua.nitla.arrasar medida.
pe-peyawak	WA 18	pepeyauac.medida arrasada.
tem-pe-peyoȼ-a	NI 32	tempepeyotza.nino.rezar entredientes como clerigo.
pe-peyoka(-k)	NI 32	pepeyoca.relumbrar el agua.
pešonaltia	NI 29	pexonaltia.nitla.henchir mucho alguna medida de cosas liquidas.
pešon-i	NI 29	pexoni.henchirse, o rebosar la medida de cosa liquida.
pešonia	NI 29	pexonia.nitla.henchir mucho alguna medida de cosas liquidas.
pešonki	NI 29	pexonqui.medida bien llena de cosas liquidas.
peλa(-k)	CVCV 93	petla.nitla.horadar algo, o hazer portillo, o hender por cañaueral.
peλa:n-i	NI 30	petlani.derramarse alguna cosa liquida.
λa-peλa:n-i	NI 30	tlapetlani.relampaguear.
peλa:nia	NI 30	petlania.nitla.derramar cosa liquida.
peλanki	NI 30	petlanqui.cosa derramada.
peλaw-a	MIS 136	petlaua.nitla.bruñir, luzir algo.
peλaw-a	MIS 137	petlaua.nite.despojar, o desnudar a otro.
peto:n-i	NI 31	petoni.desencasarse algun huesso del cuerpo.
peto:nia	NI 31	petonia.nitla.desencasar algo fuera de su lugar.
peto:nki	NI 31	petonqui.cosa desencasada.
pe:w-a	CVCV 94	peua.ni.tener comienço, o principio, o començar, o hazer algo. peua.nite.conquistar, o vencer alos enemigos.
pe:waltia	CVCV 94	peualtia.nitla.començar, o principiar algo.
pe:wia	CVCV 94	peuia.nitla.oxear aues, o ganados.
pe:wki	CVCV 94	peuhqui.el que começa la riña y contienda.
peyaktik	WA 18	peyactic.corriente de tejado.
peyawa(-k)	WA 18	peyaua.rebossar el trigo o otras cosas semejantes.
peyawak	WA 18	peyauac.corriente de tejado o cosa semejante.
pi(-k)	CVCV 95	pi.nitla.pelar, o sacar de rayz los pelos, o coger yeruas sin arrancar las rayzes dellas.
pi:ȼ-a	CVCV 96	pitza.nitla.tañer o tocar trompeta, cheremia, flauta, o otro instrumento semejãte, o soplar el fuego.

pi¢aktik	WA 19	pitzactic.cosa delgada y larga.
te-pi¢alwia	WI 56	tepitzalhuia.nic.endurecer algo a otro.
pi¢awa(-k)	WA 19	pitzaua.ni.pararse delgado y flaco.
pi¢aw-a	WA 19	pitzaua.nitla.adelgazar palos o sogas.
pi¢awak	WA 19	pitzauac.cosa delgada.
te-pi¢aw-i	WI 56	tepitzaui.endurecerse alguna cosa.
pi¢awki	WA 19	pitzauhqui.delgado.
pi¢ikiw-i	MIS 139	pitziquiui.ni.comer mucho.
pi¢in-i	NI 33	pitzini.quebrarse el hueuo, machucarse la fruta, o quebrarse el ojo.
pi¢inia	NI 33	pitzinia.nitla.quebrar los hueuos.
λa-pi:¢ki	CVCV 96	tlapitzqui.tañedor de flauta, de cheremia, o trõpeta & c. o fundidor de metales.
te-pi¢oa	WI 56	tepitzoa.nitla.endurecer alguna cosa.
te-pi¢tik	WI 56	tepitztic.cosa dura.
te-pi¢tilia	WI 56	tepitztilia.nitla.endurecer algo.
te-pi¢tiya(-k)	WI 56	tepitztia.endurecerse, o empedernecerse algo.
ma-pičoa	OA 34	mapichoa.ni.chiflar cõel dedo.
pi:k-i	CVCV 98	piqui.nitla.forgicar, o fingir e inuentar alguna cosa, o mentir asabiendas, o emboluer tamales en hojas quãdo los hazen, o cosa semejante.
pi:kia	CVCV 98	piquia.nitetla.caluniar a otro, o leuantarle algun testimonio.
λa-pi:kini	CVCV 98	tlapiquini.fabricador, o inuentador de algo.
pilič aw-i	WI 58	pilichaui.ni.arrugarse por vejez, o marchitarse alguna cosa.
pilič awini	WI 58	pilichauini. cosa q̃ se suele marchitar o arrugar.
pilič awki	WI 58	pilichauhqui.cosa marchita o arrugada.
pilič oa	WI 58	pilichoa.nitla.arrugar algo.
pilič wak-i	WI 58	pilichuaqui.ni.arrugarse o marchitarse.
pilič wakini	WI 58	pilichuaquini. cosa q̃ se suele marchitar o arrugar.
pilič wakki	WI 58	pilichuacqui.cosa marchita o arrugada.
piliw-i	WI 58	piliui.ni.arrugarse o marchitarse, o pegarse los cabellos vnos con otros.
piloa	WI 57	piloa.nite.ahorcar o colgar a otro.
pilwia	WI 57	pilhuia.nicte.colgar algo a otro dealgũ pao & c.
pi:na:wa(-k)	MIS 140	pinaua.ni.tener verguença.
pi:na:wia	MIS 140	pinauia.nite.auergonçar a otros.
pi:na:wki	MIS 140	pinauhqui.vergonçoso.
pi:na:wtia	MIS 140	pinauhtia.nite.auergonçar a otro.
pinektik	MIS 141	pinectic.descolorido de frio.
pinewa(-k)	MIS 141	pineua.ni.pararse blanquezino y descolorido de frio.
pipi¢ka(-k)	MIS 138	pipitzca.ni.bramar el cieruo, relinchar el cauallo.
pipi¢kiltia	MIS 138	pipitzquiltia.nite.hazer chillar a otro.
pipi¢oa	OA 32	pipitzoa.nitla.chupar, o roer algo.

poloa	WI 63	poloa.nite.perder, o destruir a otros con guerra o conquistarlos.
pololtia	WI 63	pololtia.nicte.hazer desechar a otro el enojo, o el vicio que tiene.
polwia	WI 63	polhuia.nitetla.perder cosa agena, o borrarle algo a otro.
pona:soa	OA 35	ponaçoa.nitla.hinchar, o henchir algo deviento.
λa-popo:¢ani	CVCV 101	tlapopotzani.cosa que echa desi mucho humo.
popo:ka(-k)	CVCV 101	popoca.ni.humear, echar humo desi.
popo:kani	CVCV 101	popocani.cosa que echa desi humo.
popoloka(-k)	NI 34	popoloca.ni.hablar lenguaje barbaro.
popolo:n-i	NI 34	popoloni.ni.ser tartamudo, o empedido dela lengua.
po-polwia	WI 63	popolhuia.nitetla.perdonar a otro la ofenssa, o destruirle alguna cosa.
po-polwilia	WI 63	popolhuilia.nitetla.perdonar a otro la ofenssa, o destruirle alguna cosa.
po-posoka(-k)	NI 35	popoçoca.heruir la olla.
po-pošalwia	WI 64	popoxalhuia.nitetla.baruechar o mollir a otro la tierra.
po-pošoa	WI 64	popoxoa.nitla.baruechar o mollir la tierra.
popo:w-a	CVCV 102	popoa.nitla.alimpiar algo, o restituir lo ageno.
posaktik	WA 21	poçactic.cosa hinchada..
posati(-k)	MIS 147	poçati.ni.glotonear.
posawa(-k)	WA 21	poçaua.ni.hincharse la carne.
posaw-a	WA 21	poçaua.nite.hinchar la carne a otro.
posawak	WA 21	poçauac.cosa hinchada.
poso:naltia	NI 35	poçonaltia.nitla.hazer espuma.
poso:n-i	NI 35	poçoni.heruir la olla, o la mar. henchirse de enojo.
poso:nia	NI 35	poçonia.nitla.cozer algo en olla, o hazer espuma.
poso:nini	NI 35	poçonini.açorado, o lleno de saña y enojo.
posonki	NI 35	poçonqui.açorado, o lleno de saña y enojo.
pošaktik	WI 64	poxactic.cosa fofa, o esponjada, o tela rala y floxamente texida.
pošawak	WI 64	poxauac.cosa fofa, o esponjada, o tela rala y floxamente texida.
pošawilia	WI 64	poxauilia.nitetla.baruechar o mollir a otro la tierra.
poškaw-i	WI 65	puxcaui.ni.emmohecerse, o henchirse alguna cosa de orin.
poškawki	WI 65	poxcauhqui.cosa mohosa, o orinienta.
poto:n-i	NI 36	potoni.ni.heder, o oler mal.
poto:nia	NI 36	potonia.nitla.vel.nite.poner a otro bizma con pluma menuda sobre la trementina, o emplumar a otro.
poto:nki	NI 36	potonqui.cosa olorosa, o hedionda.
po:w-a	CVCV 103	poa.nitla.contar cosa de cuenta o numero, o relatar proceso e historia, o leer.

po:w-i	CVCV 103	poui.ni.hazer los otros caso de mi persona.
po:wia	CVCV 103	tlapouia.nite.echar suertes a otro el hechizero o agorero con mayz & c.
po:wilia	CVCV 103	tlapouilia.nite.echar suertes a otro el hechizero o agorero con mayz & c., o contarle a otro su dinero o alguna historia.
ƛa-po:wki	CVCV 103	tlapouhqui.contador de algo, o el hechizero o agorero que echa suertes.
poyawa(-k)	WA 22	puyaui.adelgazarse, o deshazerse nuues.Prete.opuyauac.
poyaw-a	WA 22	poyaua.nitla.matizar en pintura.
poyawak	WA 22	poyauac.cosa matizada.
poyek	YA 10	poyec.cosa que tiene sal, asi como el manjar, o el agua.
poyelia	YA 10	poyelia.nitla.echar sal enlo que se guisa.
saka(-k)	CVCV 104	çaca.nitla.acarrear algo.
sakamoa	OA 36	çacamoa.ni.abrir, o labrar de nueuo la tierra.
sakamolwia	OA 36	çacamolhuia.nite.romper de nueuo la tierra a otro.
sa:liw-i	WI 66	çaliui.pegarse vna cosa o otra.
sa:loa	WI 66	çaloa.nitla.pegar algo, engrudar, hazer pared, o soldar con plomo & c.
sa-sa:lik	WI 66	çaçalic.cosa pegajosa, como engrudo, o cosa semejante.
sa-saltik	WI 66	çaçaltic.cosa pegajosa, como engrudo, o cosa semejante.
sa-sa:lwia	WI 66	tlaçaçalhuia.nite.remendar algo a otro, o empegar le alguna cosa.
sasamawa(-k)	WA 23	çaçamaua.ni.estar abuhado.
sasamawak	WA 23	çaçamauac.abuhado.
sasawaka(-k)	MIS 148	çaçauaca.ni.estar ronco.
saw-a	CVCV 105	çaua.nino.ayunar.
omi-sawitia	CVCV 105	omiçauitia.nite.enflaquecer a otro asi.
omi-sawki	CVCV 105	omiçauhqui.flaca cosa que esta en los huessos.
oomi-saw-i	CVCV 105	oomiçaui.n.pararse muy flaco en los huessos.
sek^w-i	CVCV 106	cecui.ni.tener frio.
seli-a	MIS 149	celia.nitla.recebir alguna cosa.
selik	YA 11	celic.cosa fresca y verde.
seliy(-)a(-k)	YA 11	celia.ni.prender, brotar.
seltik	YA 11	celtic.cosa muy fresca y reziente.
sepa-yaw-i	CVCV 148	cepayaui.neuar.
sepowa(-k)	WA 24	cepoa.ni.estar yerto y aterido de mucho frio.
sepo:w-a	MIS 150	cepoa.nitla.souajar algo.
sepowki	WA 24	cepouhqui.persona entomecida, o tollida.
sesek	YA 12	·cecec.cosa.fria.
sese:lia	YA 12	cecelia.nitla.enfriar cosas calientes.
se-sepoktik	WA 24	cecepoctic.cosa adormecida o entomecida.

se–sepowak	WA 24	cecepoac.entomecido o tollido.
se–sepowki	WA 24	cecepouhqui.entomecido.
sese:y(–)a(–k)	YA 12	ceceya.ni.enfriarse.
se:wa(–k)	CVCV 107	ceua.hazer frio.
se:w–i	CVCV 108	ceui.ni.aplacarse el ayrado, o apagarse el fuego o amatarse la vela, o enfriarse la cosa caliente.
se:wia	CVCV 108	ceuia.nite.descansar a otro, ayudandole a lleuarla carga, o aplacar al enojado.
se:wki	CVCV 108	ceuhqui.desembrauecido, aplacado o amansada, o desmedrado en honra y dignidad.
sey–a	CVCV 109	ceya, cea, cia.ni.querer o consentir.
seyani	CVCV 109	ceani, ciani.el que consiente y otorga algo.
sim–a	CVCV 110	cima.nitla.a dereçar la hoja de maguei para sacar el cerro.
sisik^wiliw–i	WI 67	cicicuiliui.ni.pararse flaco y seco.
sisik^wiliwki	WI 67	cicicuiliuhqui.cosa flaca y seca.
sisik^wiloa	WI 67	cicicuiloa.nic.enflaquecer a otro.
sisik^w iltia	WI 67	cicicuiltia.nite.enflaquecer a otro.
sisik^wiltik	WI 67	cicicuiltic.flaca cosa.
sisik^wiltiy–a	WI 67	cicicuiltia.ni.pararse flaco enlos huessos.
el–sisiw–i	MIS 151	elciciui.n.sospirar.
siwapaw–a	MIS 152	ciuapaua.ni.tener mucho frio.
siyaltia	CVCV 109	cialtia.nite.atraer a otro haziendole querer algo.
siyaw–a	MIS 153	ciyaua.nitla.remojar algo.
siyaw–i	MIS 154	ciaui.ni.cansarse. ciaui.nic.adquirir con trabajo lo necessario, a la vida
siyawiltia	MIS 154	ciauiltia.nite.cansar a otro.
siyo–kopin–i	MIS 76	ciyocopini.ni.demudarse el rostro de miedo, de espanto o de efermedad.
siyo–tom–a	MIS 155	ciotoma.nitla.descoser costura.
siyo–tom–i	MIS 155	ciotomi.descoserse la costura.
so(–k)	CVCV 111	ço.nino.sangrarse.
kak–solew–i	MIS 156	cacçoleui.ni.tener callos en los pies.
solo–a	WI 13	cf isolo–a
solo:n–i	NI 37	çoloni.yr con gran ympetu y ruido el rio.
so:ma(–ʔ)	CVCV 112	çuma.nino.poner el ceño el que esta enojado.
sonektik	MIS 157	çonectic.cosa fofa,esponjada o liuiana.
sonew–a	MIS 157	çoneua.nite.alterar, o alborotar la gente. çoneua.nino.apitunarse, o crecer mucho el agua del rio.
sonewki	MIS 157	çoneuhquipepechtli.cama mollida y blanda.
so–soloʠ–a	NI 37	çoçolotza.nitla.hazer ruido el chorro de agua q̃ cae sobre otra agua.
so–soloka(–k)	NI 37	çoçoloca.follar, o zumbar las fuelles, o hanelar el que se esta muriendo.

sosoyotia	MIS 158	çoçoyotia.nitla.concertar, o parear algunas cosas.
soλaktik	WA 25	çotlactic.cosa flaca y floxa.
soλa:wa(-k)	WA 25	çotlaua.ni.desmayarse o amortecerse.
soλa:w-a	WA 25	çotlaua.nite.desmayar a otro.
soλa:wak	WA 25	çotlauac.desmayado.
sow-a	CVCV 113	çoa.nitla.tender o desplegar ropa, o abrir libro.
sowilia	CVCV 113	çouilia.nitetla.desplegar o tender la ropa a otro.
šakʷaloa	WI 68	xaqualoa.nitla.desgranar semillas o cosa semejante, estregandolas con las manos, o souar massa o cosa assi.
šakʷaltilia	WI 68	xaqualtilia.nitla.machucar, souajar o ablandar fruta o cosa semejante con los dedos, o magullar.
te-šakʷalwia	WI 68	texaqualhuia.nitetla.fricar algo a otro conlas manos.
šama:n-i	NI 38	xamantiuetzi.caxcarse o quebrarse el vaso de xical que cae del alto.
šama:nia	NI 38	xamania.nitla.caxcar o quebrantar cabeça, o vaso de xical.
šapoλa(-k)	MIS 159	xapotla.nitla.horadar o romper pared.
ša-šamaȼ-a	NI 38	xaxamatza.nite.hazer pedaços alos enemigos.
ša-šamaka(-k)	NI 38	xaxamacatiuh.yr rezio el rio, haziendo gran estruendo.
šaw-a	CVCV 114	xaua.nino.afeitarse la yndia a su modo antiguo o pintar la fruta.
šawa:nia	MIS 160	xauania.nitla.vaziar agua o cosas liquidas.
šawki	CVCV 114	xauhqui.yndia afeitada a su modo antiguo.
šeliw-i	WI 69	xeliui.partirse o henderse por medio.
šeliwini	WI 69	xeliuini.cosa partible por medio.
šeliwki	WI 69	xeliuhqui.cosa partida o hendida por medio.
šeloa	WI 69	xeloa.nitla.partir, rajar o diuidir algo.
šelwia	WI 69	xelhuia.nitetla.partir con otro alguna cosa, o aliuiar quitando parte dela carga del tributo.
ši:koa	OA 37	xicoa.nino.tener embidia, o enojo. xicoa.nite.engañar, o burlar a otro.
šim-a	CVCV 116	xima.nite.afeitar o raspar a otro con nauaja, o tijeras, o labrar piedras.
šin-i	CVCV 117	xini.caerse, o desbaratarse la pared, o sierra.
ši-peȼtik	WI 53	xipetztic.cosa lisa.
šipew-a	MIS 162	xipeua.nitla.desollar, o descortezar, o mondar hauas.
šipočew-a	WI 70	xipocheua.nitla.hazer chichones, o torondones.
šiš-a	CVCV 118	xixa.nino.proveerse o hazer camara.
šišikipiliw-i	MIS 161	xixiquipiliui.ni.hincharse de tolondrones.
šišikipiłtik	MIS 161	xixiquipiltic.hinchado de tolondrones.
ši?šil-i	CVCV 115	xixili.nitla.pisar con pison, o henchir recalcando.
ši-šinia	CVCV 117	xixinia.nite.desbaratar gente, o pueblo.
ši-šinilia	CVCV 117	xixinilia.nitetla.desbaratar, o deshazer algo a otro, o aotros.
ši-šinki	CVCV 117	xixinqui.pueblo desbaratado, o asolado.

ši-šipočalwia	WI 70	xixipochalhuia.nitetla.hazer tolondrones a otro.
ši-šipočaw-i	WI 70	xixipochaui.ni.hincharse de tolondrones.
ši-šipočoa	WI 70	xixipochoa.nitla.hazerchichones, o tolondrones.
ši-šipočtik	WI 70	xixipochtic.hinchado assi, o lugar barrancoso.
ši-šitika(-k)	NI 39	xixitica.desmoronarse, o deshazerse alguna cosa.
šiti:n-i	NI 39	xitini.caerse o deshazerse la pared o sierra.
šiti:nia	NI 39	xitinia.nitla.derrocar o deshazer pared.
šitinki	NI 39	xitinqui.pared cayda o derribada.
šittomon-i	NI 40	xittomoni.ni.rebentando sonar.
šittomonia	NI 40	xittomonia.nitla.hazer sonar algo rebentando.
šiwkaliw-i	MIS 163	xiuhcaliui.pararse verde y muy fresco.
šiwkaltik	MIS 163	xiuhcaltic.cosa muy verde y fresca.
šokok	YA 13	xococ.cosa agra.
šokolia	YA 13	xocolia.nitla.azedar o auinagrar algo.
šokoya(-k)	YA 13	xocoya.ni.azedarse.
šolew-a	MIS 164	xoleua.nino.roçarse o desollarse con golpe.
šoločalwia	WI 71	xolochalhuia.nitetla.plegar o arrugar algo a otro.
šoločaw-i	WI 71	xolochaui.ni.arrugarse de vejez.
šoločoa	WI 71	xolochoa.nitla.arrugar, o plegar algo.
šoločtik	WI 71	xolochtic.arrugada cosa.
šolon-i	MIS 165	xoloni.empeorarse la llaga.
šo:š-a	CVCV 119	xoxa.nite.aojar o hechizar o ojear a otro.
te:-šo:ški	CVCV 119	texoxqui.hechizero.
šošoktik	YA 14	xoxoctic.cosa verde.
šošoktiya(-k)	YA 14	xuxuctia.ni.pararse verde.
šošo:wilia	YA 14	xoxouilia.nitla.hazer algo verde.
šošo:wiya(-k)	YA 14	xoxouia.ni.pararse verdinegro de enfermedad.
šošo:wki	YA 14	xoxouhqui.cosa verde.
šo:šwia	CVCV 119	xoxuia.nite.hechizar a otro.
šoλa(-k)	CVCV 120	xotla.nitla.cortar a Ja larga lienzo, o cosa semejante, o hazer rayas, o aserrar madera.
šo:λa(-k)	CVCV 121	xotla.ni.tener gran calentura.abrasarse la tierra, o encenderse los carbones o brotar las flores.
šo:λak	CVCV 121	xotlac.abrasada tierra, o encendidos carbones, o flores y abrotadas y abiertas.
šo:λaltia	CVCV 121	xotlaltia.nitla.encender carbones.
šoyaw-i	WI 72	xoyaui.añublarse el trigo o cosa semejante.
šoyawki	WI 72	xoyauhqui.cosa ranciosa.
λa-ȼaȼanaȼ-a	MIS 14	tlatzatzanatza.ni.hazer ruido con cañas, esteras, o con cosas semejantes.

λanawki	WI 74	tlanauhqui.enfermo que esta muy al cabo.
λaʔnekʷ-i	CVCV 32	inecui.nitla.oler algo.
λane:wia	MIS 176	tlaneuia.nino.tomar algo prestado para boluer lo enla mesma especie, o arrendar viña. &c.
λanewtia	MIS 176	tlaneuhtia.nitetla.prestar a otro, lo que se ha de boluer enla mesma especie.
λa:n-i	CVCV 123	tlani.nite.ganar a otro jugando, o enjuego.
λaniɸtia	MIS 177	tlanitztia.nino.alabarse.
λan-keĉia	MIS 68	tlanquechia.nite.morder o dar dentellada sin sacar bocado.
λanki	CVCV 122	tlanqui.cosa acabada.
λan-ki-kis-i	OA 15	tlanquiquici.ni.siluar o chiflar.
λan-kʷiɸoa	OA 20	tlancuitzoa.ni.regañar y mostrar los dientes el perro.
λao:kolia	YA 15	tlaocolia.nite.hazer misericordia a otro.
λao:koltia	YA 15	tlaocultia.nite.entristecer a otro.
λao:koŝki	YA 15	tlaocuxqui.triste.
λao:koy-a	YA 15	tlaocoya.ni.estar triste.
λaʔpaliw-i	WI 75	tlapaliui.mancebo crecido y casadero, o gañan que labra y ara la tierra.
λaʔpaloa	WI 75	tlapaloa.nite.saludar a otro.
λaʔpaltik	WI 75	tlapaltic.cosa rezia y fuerte.
λaʔpaltilia	WI 75	tlapaltilia.nitla.fortificaralgo.
λaʔpalwia	WI 75	tlapalhuia.ninote.saludar a otro.
λapa:n-a	NI 42	tlapana.nitla.quebrar algo.
λapa:n-i	NI 42	tlapani.quebrarse algo.
λapanki	NI 42	tlapanqui.cosa quebrada.
λapa-yaw-i	CVCV 148	tlapayaui.llouer mansamente y sin cessar.
λa-peλa:n-i	NI 30	tlapetlani.relampaguear.
λa-pi:ɸki	CVCV 96	tlapitzqui.tañedor de flauta, de cheremia, o trõpeta. &c. o fundidor de metales.
λapiwia	YA 16	tlapiuia.nitla.acrecentar algo.
λapiwilia	YA 16	tlapiuilia.nicte.añadir algo mas alpeso.
λapiwiy(-)a(-k)	YA 16	tlapiuia.crecer, o augmentarse alguna cosa.
λapoa	WI 76	tlapoa.nitla.ser portero o desatapar, descubrir, o abrir algo.
λapow-i	WI 76	tlapoui.abrirse la puerta, o la carta & c.
λapowki	WI 76	tlapouhqui.cosa abierta.
λapoyawa(-k)	MIS 178	tlapoyaua.hazerse ya noche.
λa:s-a	CVCV 124	tlaça.nite.echar a otro enel suelo o derrribarlo, o deponer y priuar a alguno del officio o señorio quetiene.
λa:saltia	CVCV 124	tlaçaltia.nicte.hazer dexar algo a otro por fuerça.
λasoʔλa(-k)	MIS 179	tlaçotla.nite.amar a otro.
λasoʔti(-k)	MIS 179	tlaçoti.valer caro loque se vende.

λasoʔtilia	MIS 179	tlaçotilia.nitla.encarecer algo.
λa:šilia	CVCV 124	tlatlaxilia.nino.abortar y echar la criatura asabiendas y procurandolo.
λaλa(-k)	CVCV 126	tlatla.ni.arder, abrasarse o quemarse.
ma-λaλaȼ-a	MIS 180	matlatlatza.nino.dar palmadas de plazer.
λaλak	CVCV 126	tlatlac.cosa quemada.
λaλakawiloa	OA 38	tlatlacauiloa.nite.enlabiar, opersuadir a otro con halagos.
λaλaktik	YA 17	tlatlactic.cosa bermeja.
λa-λapaȼ-a	NI 42	tlatlapatza.nitla.despedaçar algo ẽ muchas partes.
λa-λapaka(-k)	NI 42	tlatlapaca.hazerse pedaços el pan.
λaλas-i	CVCV 125	tlatlaci.ni.tener pechuguera o tos.
ma-λaλaškaloa	MIS 180	matlatlaxcaloa.nino.dar palmadas de plazer.
λaλawilia	YA 17	tlatlauilia.nitla.parar bermejo algo.
λaλawiya(-k)	YA 17	tlatlauia.ni.pararse bermejo elrostro.
λa:λawti-a	MIS 184	tlatlauhtia.nite.rogar, o suplicar algo a otro.
λa:λawtilia	MIS 184	tlatlauhtilia.nite.rogar por otro.
λatia	CVCV 126	tlatia.nite.quemar a otro.
λa:tia	MIS 181	tlatia.nite.esconder a otro.
λatilia	CVCV 126	tlatilia.nic.quemar algo a otro.
λa:tilia	MIS 181	tlatilia.nic.guardar algo a otro o esconderselo.
λa:wa:n-a	MIS 182	tlauana.ni.beuer vino.
λa:wa:nani	MIS 182	tlauanani.el que se emborracha.
λa:wa:nki	MIS 182	tlauanqui.borracho, o beodo.
λa:wa:ntia	MIS 182	tlauantia.nite.emborrachar a otro.
λa:wia	MIS 183	tlauia.alumbrar la candela.
λa:wilia	MIS 183	tlauilia.nite.alumbrar a otro con candela.
λayiliw-i	WI 77	tlailiui.ensuziarse alguna cosa.
λayiλoa	WI 77	tlailoa.nitla.henchir algo de suziedad, o dañar y echar a perder alguna cosa, o reboluer a otros.
λayowa(-k)	CVCV 152	youa.anochecer. tlayua.anochecer o hazer oscuro.
λeʔkawia	CVCV 127	tlecauia.nitla.subir algo arriba, o en alto, o pegar fuego a alguna cosa.
λeʔko(-k)	CVCV 127	tleco.ni.subir arriba.
λeʔkoltia	CVCV 127	tlecoltia.nitla.subir alguna cosa arriba.
λeʔkoteka(-k)	MIS 185	tlecoteca.nite.dar priessa.
λekʷiloa	OA 41	tlecuiloa.nite.quemar.
λilektik	WA 27	tlilectic.cosa morena o vn poco negra.
λilewa(-k)	WA 27	tlileua.pararse alguna cosa negra.
λilew-a	WA 27	tlileua.nitla.hazer algo negro o moreno.
λilewak	WA 27	tlileuac.ennegrecido o tiznado.

λi:liw–i	WI 78	tliliui.ni.pararse negro.
λi:liwki	WI 78	tliliuhqui.cosa negra.
λi:loa	WI 78	tlilloa.nitla.ēnegrecer algo.otiznar.
λiltik	WI 78	tliltic.cosa negra de etiopia.
λi:ltiya(–k)	WI 78	tliltia.ni.pararse, hazerse negro.
λi:lwia	WI 78	tlilhuia.nitla.entintar, o tiznar, borrar o ennegrecer algo.
takaλiw–i	MIS 186	tacaliui.ni.estar desollado, o roçado de algun golpe q̃ medi.
tama–či:w–a	MIS 187	tamachiua.nitla.medir algo.
nakas–tapaλiw–i	WI 79	nacaztapaliui.ni.ensordecer.
nakas–tapaloa	WI 79	nacaztapaloa.nite.hazer sordo a otro.
nakas–tapaltilia	WI 79	nacaztapaltilia.nite.hazer sordo a otro.
tapayoloa	OA 42	tapayoloa.ni.hazer pelota.
tapayoltik	OA 42	tapayoltic.cosa redonda como pelota.
tataka(–k)	OA 43	tataca.nitla.cauar, o escaruar tierra.
tatakaloa	OA 43	tatacaloa.nitla.hazer hoyos pequenos.
tatakia	OA 43	tataquia.nino.cauar parasi tierra de metal, o cosa semejante.
teȼakati	MIS 188	tetzacati.ni.hazerse esteril.
teȼakatilia	MIS 188	tetzacatilia.nite.hazer esteril a alguna.
teȼaktik	WA 28	tetzactik.cosa espessa o quajada, assi como betun o poleadas.
teȼawa(–k)	WA 28	tetzaua.pararse espesso el betun.
teȼaw–a	WA 28	tetzaua.nitla.espessar, o quajar algo.
teȼawak	WA 28	tetzauac.cosa espessa.
teȼawia	MIS 189	tetzauia.nite.escandalizar a otros.
teȼikati	MIS 188	tetzicati.hazerse esteril.
teȼiliw–i	WI 80	tetziliui.ni.tener calafrios con calenturas.
teȼiloa	WI 80	tetziloa.nitla.torcer mucho cordel, soga & c.
teȼilwia	WI 80	tetzilhuia.nicte.torcer mucho algun hilo, cordel & c. para otro.
teȼkaltik	MIS 190	tetzcaltic.cosa muy lisa, assi como raso, o cosa bruñida.
teȼkalwia	MIS 190	tetzcalhuia.nitla.barrer algo muybarrido y liso.
teȼkonaloa	OA 44	tetzconaloa.nite.rapar mucho, oatufar al que se tresquila o afeita.
teȼolak–i	WI 81	tetzolacqui.ni.desmedrar o no crecer.
teȼolakki	WI 81	tetzolacqui.desmedrado en crecer, o reuegido muchacho.
teȼoliw–i	WI 81	tetzoliui.ni.no crecer o estar reuegido, cerrarse la herida.
teȼoliwki	WI 81	tetzoliuhqui.herida cerrada, o cosa desmedrada que no crece, assi como el muchacho.
teȼoltik	WI 81	tetzoltik.llaga o herida cerrada, o el que no medra ni crece.

teȼontia	MIS 191	tetzontia.nic.atesorar o guardar hazienda para adelante. oponer sustenes ala tinaja o botija, paraque no se derrame, o poner cimiento de piedra y cal ala pared que sobre el se ha de edificar.
teȼoti(-k)	WI 81	tetzoti.ni.no crecer el muchacho, o estar reuegido.
teȼotik	WI 81	tetzotic.muchacho reuegido que no crece.
teȼotilia	WI 81	matetzotilia.nitla.souajar algo.
teȼotki	WI 81	tetzotqui.muchacho reuegido que no crece.
tei:n–i	NI 43	teini.quebrarse algunvaso, saltando con ruydo algun pedaço del.
tei:nia	NI 43	teinia.nitla.quebrar vaso.
te:ka(-k)	CVCV 128	teca.nitla.assentar piedras enel edificio, o poner maderos o cosa semejante, enel suelo tendidos o enuasar alguna cosa liquida.
tek–i	CVCV 129	tequi.nitla.cortar algo.
tekipačilwia	WI 82	tequipachilhuia.nimitzno.dar pena a otro. es reuerencial.
tekipačiw–i	WI 82	tequipachiui.ni.tener descontento y pena.
tekipačoa	WI 82	tequipachoa.nite.angustiar, dar pena o afligir a otro.
tekipanoa	OA 46	tequipanoa.ni.vel.nitla.trabajar.
tekiti(-k)	MIS 193	tequiti.ni.trabajar o tribunar.
tekitia	MIS 193	tequitia.nite.dar obra o tequio a otro.
tekitini	MIS 193	tequitini.trabajador o tributario.
tekitki	MIS 193	tequitqui.pechedor, trabajador o tributario.
tekoyo:wa(-k)	MIS 194	tecoyoa.ni.aullar o bramar el animal.
tekoyo:wani	MIS 194	tecuyuani.aullador o bramador.
tekpan–a	MIS 195	tecpana.nite.poner en orden la gente.
tekpičalwia	WI 83	tecpichalhuia.nitetla.ayŭtar algo para otro.
tekpičaw–i	WI 83	tecpichaui.ayuntarse la gente.
tekpičoa	WI 83	tecpichoa.nitla.ayuntar, allegar, o amontonar algo.
te-kʷe:čilwia	WI 30	tecuechilhuia.nitetla.moler mucho alguna cosa para otro.
te-kʷe:čoa	WI 30	tecuechoa.nitla.moler muy mucho alguna cosa.
tekʷinaltia	NI 44	tecuinaltia.nitla.hazer arder y que eche llama el fuego.
tekʷin–i	NI 44	tecuini.encenderse el fuego, echando llama, o batir y dar golpes el coraçon.
tekʷinia	NI 44	tecuinia.nino.tropeçar sin caer en tierra.
te-kʷiy(-)a(-k)	CVCV 64	tecuia.nitla.deuanar, emboluer, o liar algo.
tem–a	CVCV 131	tema.nite.bañar a otro en temazcalli.
te:m–a	CVCV 130	tema.nitla.echar o poner algo en alguna parte, assi como mayz & c. o cozer algo en hornillo pequeño.
tem–i	CVCV 132	temi.ni.estar harto y repleto, o henchirse la vasija de algun licor, o estar juntos gatillos, perrillos, o cosas semejantes, assi como mayz, cacao, calabaças & c.
te:mik–i	MIS 196	temiqui.ni.soñar algo.

te:mikini	MIS 196	temiquini.soñador.
temitia	CVCV 132	temitia.nite.hartar a otro.
temo(-k)	CVCV 133	temo.ni.descendir o abaxar.
te:moa	OA 48	temoa.nitla.buscar algo.
te:molia	OA 48	temolia.nitetla.buscar algo para otro.
temowia	CVCV 133	temouia.nitla.descender, o abaxar algo.
tem-pepeyoȼ-a	NI 32	tempepeyotza.nino.rezar entredientes como clerigo.
tena(-k)	CVCV 134	tena.ni.quexarse el enfermo.
tenani	CVCV 134	tenani.enfermo que se quexa y gime.
ten-ȼikʷew-a	MIS 15	tentzicueua.nitla.mellar vaso.
te:ne:w-a	MIS 197	teneua.nitla.prometer, o expresar algo.
ten-iȼania	MIS 25	tenitzania.nino.sacrificar y cortar los labrios āte los idolos.
tenistia	MIS 198	teniztia.nicte.encargar, o encomendar algo a otro.
tenki	CVCV 132	tenqui.harto de comida, o cosa llena, assi como vaso o tinaja.
tenwimiloa	OA 49	tenuimiloa.nitla.perfilar algo.
teoȼikolew-a	MIS 199	teotzicoleua.ni.conualecer de enfermedad.
teoʔsiw-i	WI 84	teociui.ni.tener hambre, o tener gana decomer. nic.tener deseo, o hambre de algun mājar corporal, o espiritual.
teoʔsiwini	WI 84	teociuini.el que tiene gana de comer, o el hambriēto.
teoʔsiwki	WI 84	teociuhqui.hambriēto, o muerto de hambre.
teo:λakiya(-k)	MIS 200	teotlaquia.hazerse tarde o anochecer.
tepe:w-a	WA 29	tepeua.nitla.esparzir o echar algo por el suelo.
tepe:w-i	WA 29	tepeui.caerse las hojas delos arboles.
te-piȼalwiȥ	WI 56	tepitzalhuia.nic.endurecer algo a otro.
te-piȼaw-i	WI 56	tepitzaui.endurecerse alguna cosa.
te-piȼoa	WI 56	tepitzoa.nitla.endurecer alguna cosa.
te-piȼtik	WI 56	tepitztic.cosa dura.
te-piȼtilia	WI 56	tepitztilia.nitla.endurecer algo.
te-piȼtiya(-k)	WI 56	tepitztia.endurecerse, o empedernecerse algo.
tepinia	MIS 201	tepinia.nitla.dar puñete conla mano cerrada, o dar de codo.
tepitilia	WI 85	tepitilia.nitla.acortar, o achicar algo.
tepito:n	WI 85	tepito.cosa pequena, o poca cosa.
tepito:niw-i	WI 85	tepitoniui.ni.tornarse pequeño, o chico.
tepito:noa	WI 85	tepitonoa.nitla.acortar, o achicar algo.
tepoλamia	MIS 202	tepotlamia.nino.tropeçar sin caer enel suelo.
tes-i	CVCV 135	teci.ni.moler mayz, o cosa semejante en piedra.
tesini	CVCV 135	tecini.el que muele alguna cosa.
tesiw-i	WI 86	teciui.granizar.

teski	CVCV 135	tezqui.la que muele mayz o otra cosa en metlatl.
tesonoa	OA 50	teçonoa.nitla.hazer aspera alguna cosa.
tesontik	OA 50	teçontic.aspera cosa, assi como piedra.
tesolowia	CVCV 135	texolo* ia.nitla.majar algo con majadero de piedra.
testik	CVCV 135	textic.cosa desmenuzada, o muy molida.
testilia	CVCV 135	textilia.nitla.desmenuzar, o picar algo menudo.
teteɸoa	OA 45	tetetzoa.nitla.bruñir o acepillar algo.
te-teiɸ-a	NI 43	teteitza.nitla.roer huesso.
te-teika(-k)	NI 43	teteica.cruxir algo entre los dietes.
tetekiliw-i	MIS 192	tequiliui.nite.roçarse, o rascuñarse.
te-tekʷiɸ-a	NI 44	tetecuitza.nitla.hazer estruendo con los pies.
tete-kʷika(-k)	NI 44	tetecuica.hazer gran ruido la llama del fuego.
tete-kʷinaw-i	WI 34	tetecuinaui.mellarse o ēbotarse el cuchillo & c.
tete-kʷintik	WI 34	tetecuintic.cosa roma despuntada, o mellada.
teteloa	OA 47	teteloa.nitla.dar golpes con el codo.
te-tepewki	WA 29	derramada cosa.tetepeuhqui.
te-tesilwia	WI 86	tetecilhuia.nitetla.atufar o rapar mucho la cabeça de alguno.
tetewan-a	MIS 203	teteuana.nitla.tirar o estirar algo, estender o desarrugar alguna cosa.
tilan-a	MIS 206	tilana.nitla.estirar, o tirar de algo.
tilawa(-k)	WA 30	tilaua.llouer reziamente o hazerse gruessa la manta y tupirse.
tilaw-a	WA 30	tilaua.nitla.hazer grueso algo, o espessar y tupir bien la manta, o el seto & c.
tilawak	WA 30	tilauac.cosa gruessa, asi como manta, tabla, seto, papel, torillas y esteras y cosas semejantes llanas y anchas.
tiliktik	NI 45	tilictic.cosa tesa y panda.
tilin-i	NI 45	tilini.apretarse.
tilinia	NI 45	tilinia.nitla.tirar dealgo, apretar ñudo.
tilinki	NI 45	tilinqui.pando, o cosa tesa.
ti:λan-i	MIS 207	titlani.nitla vel.nite.embiar o hazer mensajero.
titiɸ-a	MIS 204	tititza.nino.tener puxo. o desperezarse y estirarse, bocezando.
titicalwia	WI 87	titichalhuia.nitetla.hazer algunavestidura estrecha y corta a otro.
titicawki	WI 87	titichauhqui.vestidura estrecha y corta.
titicoa	WI 87	titichoa.nitla.acortar, o estrechar algo.
titictik	WI 87	titichtic.vestidura estrecha y corta.
titikan-a	MIS 205	titicana.nitla.estirar o estender lo encogido o arrugado.
toka(-k)	CVCV 137	toca.nite.seguir a alguno.
to:ka(-k)	CVCV 138	toca.nitla.sembrar algo a mano asicomo pepitas, calabaças, melones, pepinos, ocosa semejāte, o soterrar algo.

tokia	MIS 208	toquia.nitla.atizar el fuego.
tokilia	CVCV 137	toquilia.nocon.suceder a otro en cargo, officio, o en otra cosa.
a:-toko(-k)	CVCV 139	atoco.n.lleuarme, o ahogarme el rio.
toktia	CVCV 137	toctia.nicno.esconderse, o ampararse detras de algo. toctia.nitla.doblar cordel, o hilo o hazerlo mas gordo.
a:-toktia	CVCV 139	atoctia.nite.echar enel rio a otro.
toli:na(-k)	MIS 209	tolina.ni.antojarseme algũa cosa de comer sin la poder auer.
toli:nani	MIS 209	tolinani.antojadizo.
toli:nia	MIS 209	tolinia.nite.afligir omaltratar aotro.
toloa	OA 51	toloa.ni.abaxar, o inclinar la cabeça.
toloa	OA 52	toloa.nitla.tragar algo.
tololtia	OA 51	tololtia.nite.hazer abaxar la cabeça a otro.
tom-a	CVCV 140	toma.nite.desatar, o soltar a otro dela prision.
siyo-tom-a	MIS 155	ciotoma.nitla.descoser costura.
toma:wa(-k)	WA 31	tomaua.ni.engordar o crecer.
toma:w-a	WA 31	tomaua.nitla.engordar.
toma:wak	WA 31	tomauac.cosagorda.
tom-i	CVCV 140	tomi.desatarse algo, o abrirse la carta, o descoserse algo.
siyo-tom-i	MIS 155	ciotomi.descoserse la costura.
tomilia	CVCV 140	tomilia.nitetla.desabrochar a otro.
tomo:n-i	NI 46	matomoni.no.hazersele ampollas en las manos.
tomo:nia	NI 46	tomonia.nitla.hazer chichones.
tomposti(-k)	MIS 211	tompoxti.ni.tontear, o ser tonto.
to:na(-k)	CVCV 141	tona.hazer calor o sol.
to:ne:wa(-k)	WA 32	toneua.ni.padecer dolor.
to:ne:w-a	WA 32	toneua.nite.atormentar o afligir a otro.
topew-a	MIS 212	topeua.nitla.empuxar otra cosa, o atizar el fuego allegandole los tizones.
toska-ča-čaliw-i	NI 9	tozcachachaliui.ni.enronquecer, o mudar la boz el moço.
toska-nanalka	NI 27	tozcananalca.ronco.
toska-na-naliw-i	NI 27	tozcananaliui.ni.enrõquecerse.
toska-nanaltik	NI 27	tozcananaltic.ronco.
i:š-to:soa	OA 53	ixtoçoa.n.velar o trasnochar.
i:š-to:soltia	OA 53	ixtoçoltia.nite.hazer velar a otro.
tošaw-a	MIS 214	toxaua.nitla.derremar, o echar mayz, trigo & c. por ay, tierra arena, o cosa assi.
i:š-tošom-a	MIS 215	ixtoxoma.nite.rascuñar la cara a otro.
toto:ȼ-a	CVCV 136	tototza.nite.aguijar y dar priessa al que camina, o empeorar el medico al ẽfermo.
toto:čilia	CVCV 136	totochilia.nitetla.dar mucha priessa a otros.

toto:ka(-k)	CVCV 136	totoca.correr el agua, o viento, o auer gran pestilencia. totoca.ni.yr depriessa, o correr, empeorar, o crecer la enfermedad.
toto:kani	CVCV 136	totocani.cosa ligera que corre mucho.
toto:kilia	CVCV 136	tlatotoquilia.nite.ser corredor, yendo aprocurar la hazienda que se deue a otro.
totomoliw-i	MIS 210	totomoliui.brotar e hincharse las yemas assi los arboles.
totomoliwki	MIS 210	totomoliuhqui.arbol q̃ tiene hĩchadas las yemas para brotar.
to-tomo:naltia	NI 46	totomonaltia.nite.hazer a otro bexigas o ampollas.
to-tomo:n-i	NI 46	totomoni.ni.hazerse me bexigas o ampollas.
toto:nia	YA 18	totonia.nitla.asolear o calentar algo al sol, o ala lumbre.
toto:nilia	YA 18	totonilia.nite.callentar a otro.
toto:niy(-)a(-k)	YA 18	totonia.calentarse el agua o otra cosa.
toto:nki	YA 18	totonqui.fiebre, o cosa caliente.
totopoȼ-a	MIS 213	totopotza.nitla.roer, o tostar algo.
totopoctik	MIS 213	totopochtic.cosa muy tostada, assi como pan, tortillas de mayz & c.
totoyoka(-k)	MIS 216	totoyoca.ni.correr o darse priessa.
toyawa(-k)	WA 33	toyaua.derramarse agua.
toyaw-a	WA 33	toyaua.nitla.derramar cosas liquidas.
toyaw-i	WA 33	toyaui.derramarse cosas liquidas.
toyawilia	WA 33	toyauilia.nite.escanciar vino.
wa:ȼ-a	CVCV 142	vatza.nite.enxugar, secar, o enflaquecer a otro.
wakaliw-i	WI 88	vacaliui.ni.tullirse.
wakaliwki	WI 88	vacaliuhqui.encogido de neruios, o tullido.
wakaloa	OA 54	vacaloa.nitla.acanalar algo.
wakaltik	OA 54	vacaltic.cosa acanalada.
wa:k-i	CVCV 142	vaqui.ni.secarse, enxugarse al sol, mermar las cosas liquidas, o pararse flaco.
wa:kiltia	CVCV 142	vaquiltia.nitla.secar algo.
wa:kki	CVCV 142	vacqui.cosa seca, enxuta, o emmagrecida.
wapaktik	WA 34	vapactic.cosa endurecida.
wapaktiya(-k)	WA 34	vapactia.endurecerse.
wapa:wa(-k)	WA 34	vapaua.endurecerse.o pararse aspera o yerta alguna cosa.
wapa:w-a	WA 34	vapaua.nitla.fortificar algo.
wapa:wak	WA 34	vapauac.cosa aspera y crudia.
wasom-a	MIS 218	vaçuma.nitla.rascuñar o desollar.
wasom-i	MIS 218	vaçumi.ni.desollarme con golpe.
wa-walania	MIS 217	vaualania.nitla.lançar sangre, o otra cosa porla boca.
wawalȼa(-k)	NI 47	vavaltza.nite.ladrar el perro a alguno.
wawalka(-k)	NI 47	vaualca.hazer gorgoritas la redoma, o cosa semejante.

wawaloa	NI 47	vaualoa.nite.ladrar el perro a alguno.
wawan-a	CVCV 143	vauana.nitla.escaruar, o hazer rayas enla tierra, reglar papel, traçar o debuxar algo.
λa–wawanki	CVCV 143	tlauauanqui.reglador para reglar papel, o para rayar.
waw-kʷem–a	CVCV 60	vauhcuema.ni.sembrar semilla de bledos.
weȼ-i	CVCV 144	vetzi.ni.caer.
weȼini	CVCV 144	vetzini.caedizo.
weȼitia	CVCV 144	vetzitia.nino.assentarse persona de calidad.
weȼka(-k)	MIS 219	vetzca.ni.reyrse.
weȼki	CVCV 144	vetzqui.caydo.
weȼkilia	MIS 219	vetzquilia.nite.reirse de alguno.
weȼkitia	MIS 219	vetzquitia.nite.hazer reir a otro, o hazer algo por donde se rian de mi.
we:i	YA 19	vey.grande.
we:ilia	YA 19	veilia.nitla.hazer mayor lo pequeño.
we:iy(-)a(-k)	YA 19	veia.ni.hazerse grande.
we?ka–panilwia	WI 51	vecapanilhuia.ninote.enxalçar, o sublimar a otro.
we?ka–paniw-i	WI 51	vecapaniui.ni.subir, o crecer en honra, dignidad y estado.
we?ka–paniwki	WI 51	vecapaniuhqui.enxalçado y sublimado en honra y estado.
we?ka–panoa	WI 51	vecapanoa.nite.sublimar y engrandecer a otro.
we?ka:w(-)a(-k)	MIS 220	vecaua.ni.tener mucha edad, o detenerse y tardar en algun lugar.
we?ka:w-a	MIS 220	vecaua.nite.detener por largo espacio a otro.
we?ka:wani	MIS 220	vecauani.cosa que dura mucho, o el que es tardio enlo que baze.
we?ka:witia	MIS 220	vecauitia.nitla.guardar algo largo tiempo.
welȼonoa	OA 55	veltzonoa.nino.relamerse.
welik	YA 20	velic.cosa sabrosa y gustosa.
welilia	YA 20	velilia.nitla.hazer sabroso el manjar.
weliti(-k)	MIS 221	veliti.ni.poder hazer algo, o tener suficiencia y ser bastante para algo.
welitia	MIS 221	velitia.nite.dar facultad, poder y autoridad a otro para hazer algo.
welitiltia	MIS 221	velitiltia.nite.dar facultad, poder y autoridad a otro para hazer algo.
welitini	MIS 221	velitini.el que es suficiente y poderoso para hazer algo.
weloa	OA 56	veloa.nitla.desboronar algo.
welonia	OA 56	velonia.nitla.desboronar algo.
wepan-a	MIS 222	vepana.ni.arrastrar madera.
wepanani	MIS 222	vepanani.el que arrastra madera.
weλaȼtik	MIS 226	vetlatztic.cosa muy larga y luenga.
wi:ȼ	CVCV 145	vitz.ni.venir.

yama:nilia	YA 21	yamanilia.nitla.amollentar algo, o ētibiarlo.
yama:niy–a	YA 21	yamania.ni.estar templado el cuerpo.
yama:nki	YA 21	yamanqui.cosa blanda y muelle.
yamastik	YA 21	yamaztic.cosa blanda y muelle.
yamastiy–a	YA 21	yamaztia.ni.ablandarse.
yank^{w}ik	YA 22	yancuic.cosa nueua o reziente.
yank^{w}ilia	YA 22	yancuilia.nitla.renouar alguna cosa.
ya:o:λa(–k)	MIS 229	yaotla.nite.hazer guerra a otros.
ya:o:tia	MIS 229	yaotia ninote.contender con alguno, o enemistarse con otro.
yapalektik	WA 35	yapalectic.cardeno, carne lastimada.
yapalewa(–k)	WA 35	yapaleua.ni.tener cardenales de golpes de açotes.
yapalewak	WA 35	yapaleuac.cardeno, carne lastimada.
yapaltik	WA 35	yapaltic.cosa teñida de negro.
yapaltiy–a	WA 35	yapaltia.ni.pararse moreno.
yawaliw–i	WI 92	yaualiui.hazerse redonda la mata de mayz antes que haga caña.
yawaliwki	WI 92	yaualiuhqui.cosa redonda, como luna o rodela & c.
yawaloa	WI 92	yaualoa.nitla.andar en procession, o al rededor o rodear.
yawaltik	WI 92	yaualtic.cosa redonda como luna o rodela.
yawalwia	WI 92	yaualhuia.nitetla.rodear por no topar con otro.
–yaw–i	CVCV 148	quiaui.llouer. cepayaui.neuar. tlapayaui.llouer mansamente y sin cessar.
ye:kaw–i	WI 93	yecaui.acabarse, o concluirse la obra.
ye:kawki	WI 93	yecauhqui.cosa acabada y concluida.
ye:koa	WI 93	yecoa.nitla.concluir o acabar obra, o prouar el manjar.
yeš–i	CVCV 50	cf iyeš–i
yew–a	CVCV 149	yeua.nitla.mendigar.
λa–yewia	CVCV 149	tlayeuia.nino.mendigar. tlatlaeuia.nino.mēdigar. tlatlayeuia nino.mēdigar.
yo:koy–a	MIS 230	yocoya.nitla.fabricar o componer algo.
yo:l–i	CVCV 150	yoli.ni.biuir, resuscitar, abiuar, o empollarse el hueuo.
yo:litia	CVCV 150	yolitia.nite.dar vida a otro.
yo:l-malakačiw–i	WI 35	yolmalacachiui.ni.deuanear.
yom–a	CVCV 151	yoma.nino.amblar la mujer.
yomon–i	NI 48	yomoni.bullir los gusanos, o piojos, pulgas, hormigas.
yopew–a	MIS 231	yopeua.nitla.despegar algo.
yowa(–k)	CVCV 152	youa.anochecer. tlayua.anochecer o hazer oscuro.
yowilia	MIS 232	youilia.ni.estar hasta la noche en alguna parte.
yo–yomoka(–k)	NI 48	yoyomoca.ni.tener comezõ.

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Abbreviations

AL: Anthropological Linguistics.
An.Mus.Nac.:   Anales del Musio Nacional (de Arqueología, Historia y Etnología). México.
ECN: Estudios de Cultura Náhuatl. México.
IJAL: International Journal of American Linguistics. Baltimore.
ILV: Instituto Lingüístico de Verano. Norman, Oklahoma.
INAH: Instituto Nacional de Antropología e Historia. México.
Inv. Ling.:   Investigaciones Lingüísticas. México.
Lg: Language, the Journal of the Linguistic Society of America. Baltimore.
RMEA: Revista Mexicana de Estudios Antropológicos. México.
UNAM: Universidad Nacional Autónoma de México.

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RESUMEN EN ESPAÑOL

La introducción a los Cinco Estudios presenta en pocas palabras la situación de la lengua náhuatl y su documentación desde el tiempo de la inmigración en Mesoamérica hasta hoy. Sigue una clasificación tentativa de los dialectos del náhuatl basada parcialmente en los resultados de los Cinco Estudios. El libro consta de observaciones que aún no se han cristalizado en una síntesis del desarrollo morfológico y fonológico. Se dirige no sólo a los lingüistas, sino a todos los que se interesan por la lengua náhuatl. El intento ha sido 1) demostrar que cualquier dialecto del náhuatl se entiende y describe mejor desde la perspectiva de otros dialectos del mismo, y 2) transmitir mis observaciones y hipótesis a otros investigadores con el fin de instigar al debate. En el libro se aboga por una dialectología en la cual la comparación de formas de diferentes dialectos da como resultado una misma interpretación de estas formas en todos los dialectos, colectiva e individualmente. La interpretación está conforme con la reconstrucción histórica que aparece como un resultado suplementario de la comparación. La última parte de la introducción presenta el sistema de símbolos técnicos y ortográficos empleados en el libro.

Según la tesis del primer capítulo, las secuencias *-ia* y *-oa* como en *kimiktia* 'le mata' y *kipoloa* 'lo pierde', suenan idénticas a las secuencias *-iya* y *-o:wa* de tales verbos como *kipiya* 'lo tiene' y *kiko:wa* 'lo compra'. Esta observación es válida en todos los dialectos náhuas; en unos se pronuncian [ia] tanto *-ia* como *-iya*, en otros las dos salen como [i:(y)a], pero en todos los dialectos la pronunciación es la misma para las dos secuencias. El caso de *-oa* y *-o:wa* es parecido, la pronunciación varía de un dialecto a otro, pero en ningún dialecto se pronuncia *-oa* diferentemente de *-o:wa*. Por otro lado, en todos los dialectos es razonable distinguir *-ia* de *-iya*, y *-oa* de *o:wa*, en la estructura subyacente. Esto se ve más claramente con respecto a la formación del perfecto de los verbos terminados en *-ia* y *-oa*, en oposición al perfecto de verbos en *-iya* y *-o:wa*:

ki-miktia	le mata	ki-piya	lo tiene
ki-mikti ʔ	le mató	ki-piy [kipiš]	lo tuvo
ki-poloa	lo pierde	ki-ko:wa	lo compra
ki-polo ʔ	lo perdió	ki-ko:w	lo compró

El tema principal del capítulo segundo es la historia de la forma del per-
fecto y su desarrollo en varios dialectos, pero se abordan también muchos
otros temas menores a los que aquí no se puede hacer referencia. Se
propone la hipótesis de que en proto-azteco todos los perfectos se formaron
mediante el sufijo *-*ka:* añadido al presente:

ki:sa	sale	*ki:sa-ka:	salió
ki-maka	se lo da	*ki-maka-ka:	se lo dió
*ki-miktiha	le mata	*ki-miktiha-ka:	le mató
*ki-polowa	lo pierde	*ki-polowa-ka:	lo perdió

En todos los dialectos — quiere decir ya en la etapa proto-azteca — la *a* se
pierde antes del sufijo *-*ka:* en los verbos como *miktiha* y *polowa*,
dando las formas *ki-miktih-ka:* y *ki-polow-ka:*. También en proto-
azteco, la *h* y la *w* en estos mismos dos tipos de verbos se pierden entre
dos vocales: *ki-miktia* y *ki-poloa*, y en unos dialectos la *h* se cambia
después en ʔ (saltillo). En cuanto a los demás verbos el desarrollo del per-
fecto divide las áreas dialectales en dos: en las áreas centrales (La Huasteca,
el Norte de Puebla, el Valle de México, Morelos, Tlaxcala, Puebla Central
y Guerrero Central) los verbos que terminan en –VCV (vocal, consonante,
vocal), en donde la consonante no es *k* ni λ, la última vocal se pierde antes
del sufijo *-*ka:* : *ki:sa-ka:* > *ki:s-ka:*. Esta pérdida no se encuentra en
las áreas dialectales periféricas (Jalisco, Colima, Durango, Sierra de Puebla,
Michoacán, el Norte de Guerrero, el Este de Puebla, el Sur de Guerrero,
Istmo y Pipil). El sufijo *-*ka:* se cambia en –*ki* en todos los dialectos, y
después éste se suprime generalmente cuando le precede una consonante,
y precedido por una vocal, al sufijo le queda sólo la *k*:

Areas centrales	ki:s(-ki)	maka-k(i)
Areas periféricas	ki:sa-k(i)	maka-k(i)

Al final del capítulo otros rasgos divisores (isoglosas) están revisados y
comparados con la isoglosa fundamental de la formación del perfecto.

La tesis de capítulo tercero es que la -*oa* de toda una clase de verbos
viene de *-*V̆wa* del proto-azteco. Se basa esta tesis en las siguientes obser-
vaciones: 1) los intransitivos correspondientes a los verbos transitivos en
-*oa* terminan todos en -*V̆wi.* 2) Los verbos terminados en –*wa* tienen una
vocal larga antes de este -*wa.* 3) Los pares de verbos en -*oa/-*V̆wi* (p.ej.
kotoȼoa/kotoȼawi) tienen características en común con los pares
terminados en -*V:wa/-V:wa* (p.ej. *toma:wa/toma:wa*). 4) Los aplicativos
formados de los verbos en -*oa* se derivan más sencillamente de una forma
en -*V̆wa.* 5) El mismo desarrollo -*V̆wa* > -*oa* se encuentra también en la
formación del impersonal (*nemi* + *wa* > *nemoa*).
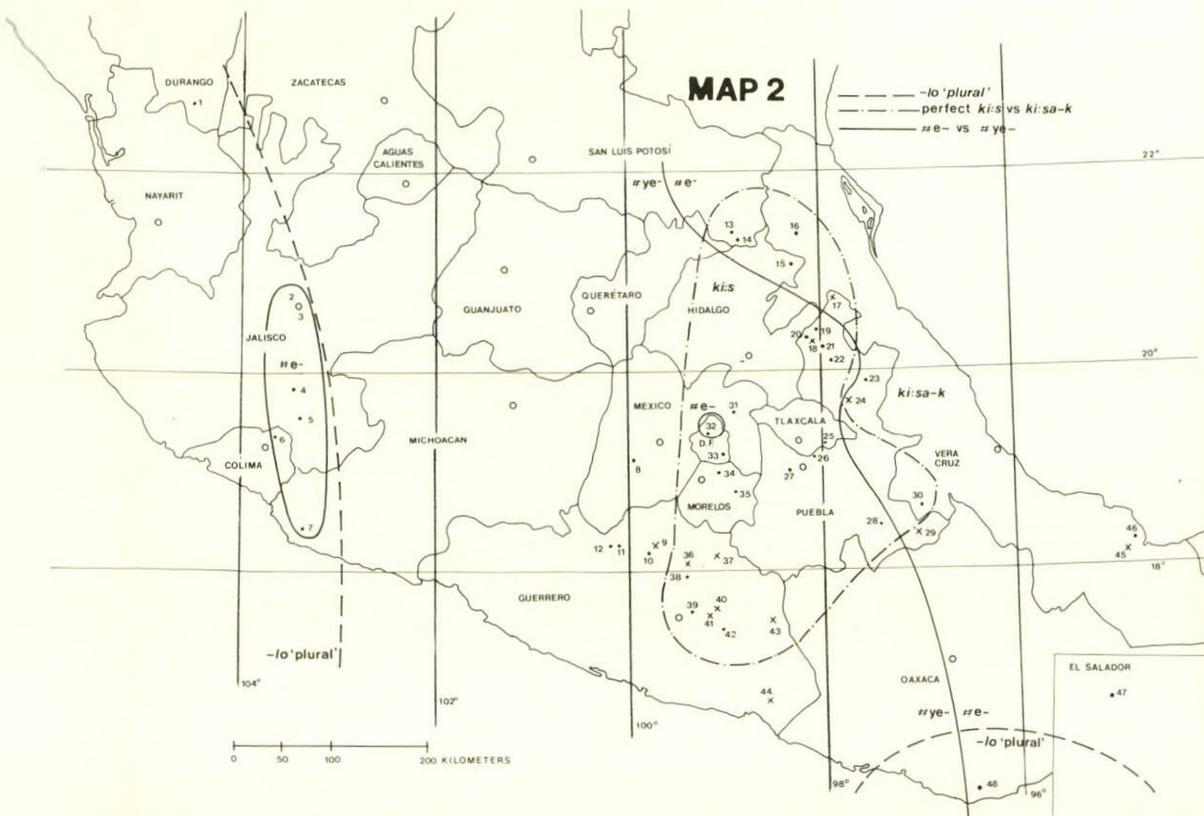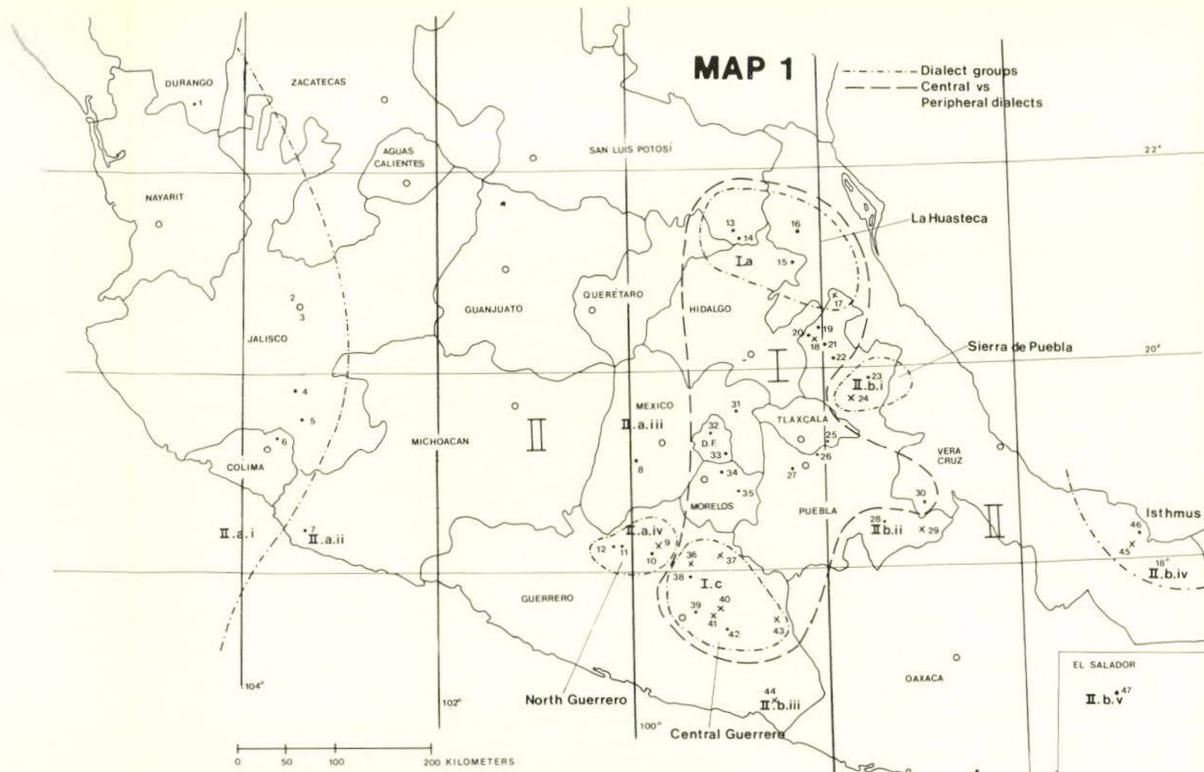
En el capítulo cuarto se demuestra que todos aplicativos se forman históricamente con un solo sufijo, *-lia*. En un área estrecha alrededor de la Ciudad de México, incluyendo Teotihuacán y Morelos, una metátesis innovativa cambia *wl* en *lw*. Debido a ésta y a otros cambios adicionales, salen formas en *-wia* o *-Vlwia* (**poliwa-lia* > *polwia*, **iʔtakawa-lia* > *iʔλakalwia*).

El próposito del capítulo quinto es una correlación de tres grupos de verbos con tres campos semánticos. Los verbos terminados en *-wa/wa* y en *-wi/oa* indican generalmente algo de la *superficie*, de la *forma* o del *tamaño* de un objeto. Los verbos en *-ni/nia* o *-na* significan algo que implica *sonido*, el acto de *romper* o *destruir* o también una *propagación* o *difusión*. El sentido de los pocos verbos terminados en *-ya/lia* abarca tales conceptos como *olor*, *sabor* y otras sensaciones como p.ej. *calor*, *peso*, *humedad*. En la lengua mam, de la familia mayance, hay rasgos semánticos parecidos a los anteriormente mencionados del náhuatl asimismo distribuidos en tres grupos de verbos morfológicamente diferentes. Por este motivo, se invita a los investigadores de otras lenguas Mesoamericanas a que busquen semejantes dimensiones semánticas en grupos de verbos morfológicamente distintos.

MAP 1

1. San Pedro Jícora
2. Obispado de Guadalajara, etc.
   (Guerra 1692)
3. Obispado de Guadalajara
   (Cortés y Zedeño 1765)
4. San Andrés Ixtlan
5. Tuxpan
6. Suchitlán
7. Pómara
8. Almomoloa
9. Tezcatitlan
10. Chilacachapa
11. Totoltepec
12. Ixcatepec
13. Cuatlamayán, Cd. Santos
14. Matlapa
15. Huautla
16. Tantoyuca
17. Las Balsas
18. Cuacuila, Huauchinango
19. Atequexquitla, Xicotepec
20. Atla, Pahuatlán
21. Tlaola
22. Ahuacatlán
23. Zacapoaxtla

24. Zautla
25. San Pedro Tlacuapan
26. San Miguel Canoa
27. Tlaxcalancingo, San Andres Cholula
28. Coapan, Tehuacán
29. Zoquitlán
30. Zongolica
31. San Martín de las Pirámides
32. Classical Nahuatl
33. Milpa Alta, D.F.
    Santa Ana Tlacotenco
34. Tepoztlán
35. Tetelcingo
36. Xalitla
37. Copalillo
38. San Juan Tetelcingo
39. Atliaca
40. Zitlala
41. Acatlán
42. Hueycantenango
43. Xalatzala
44. Quetzalapa
45. Mecayapan
46. Pajapan
47. Izalco, El Salvador
48. Pochutla

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Villages marked with x are those from which I have personally collected material.

MAP 2

1. San Pedro Jícora
2. Obispado de Guadalajara, etc. (Guerra 1692)
3. Obispado de Guadalajara (Cortés y Zedeño 1765)
4. San Andrés Ixtlan
5. Tuxpan
6. Suchitlán
7. Pómara
8. Almomoloa
9. Tezcatitlan
10. Chilacachapa
11. Totoltepec
12. Ixcatepec
13. Cuatlamayán, Cd. Santos
14. Matlapa
15. Huautla
16. Tantoyuca
17. Las Balsas
18. Cuacuila, Huauchinango
19. Atequexquitla, Xicotepec
20. Atla, Pahuatlán
21. Tlaola
22. Ahuacatlán
23. Zacapoaxtla

24. Zautla
25. San Pedro Tlacuapan
26. San Miguel Canoa
27. Tlaxcalancingo, San Andres Cholula
28. Coapan, Tehuacán
29. Zoquitlán
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MAP 3

MAP 4