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The Nahuatl Language

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1 Historical and Linguistic Background

When the Spanish expedition led by Hernán Cortés arrived on the Gulf Coast of Mexico near the modern city of Vera Cruz in 1519, The Aztec Empire was at the height of its power in the Valley of Mexico. Within a few years, that empire had been overthrown and the foundations of colonial New Spain established. The Spanish capital Mexico City was built on the ruins of the Aztec capital Mexico, with its two cities Tenochtitlan and Tlatelolco. The population was decimated by war, disease and the effective slavery of the *encomienda* system. The religious and political institutions which antedated the empire were swept away.

The dominant language spoken in the Aztec Empire at the time of the Spanish conquest was Nahuatl. There were many other languages spoken both within the Empire and beyond its complex borders, as is still the situation there at the present time. The fact that Nahuatl is the southernmost member of the language family to which it belongs suggests that it is a relative newcomer to the region. Which of the many archaeological cultures brought Nahuatl to the Valley of Mexico is not clear, but it cannot have been the Aztecs themselves. Rather, they must have adopted it as they adopted the religion and culture of the groups which preceded them.

The destruction of the religious and political systems of the empire did not extend to Nahuatl, although it became subordinate politically to Spanish. It was studied and used by Spanish missionaries as the principal language of contact with native peoples throughout the colonial period in both Mexico and Central America. To what extent the codices kept by the native peoples in Mexico represent a writing system is controversial, but there is no doubt that literacy in Nahuatl using the Roman alphabet was quickly established. A body of literature which preserves pre-conquest historical, ethnographical and poetic material, together with post-conquest religious and social material came into existence.

Nahuatl is spoken today by over a million people in scattered rural areas surrounding the Valley of Mexico. As Mexico develops economically, Nahuatl is losing ground in favor of Spanish in many areas, but in a few it remains vigorous and even expanding. The policies of the government have been supportive at times, but indigenous languages have not yet been able to establish a place for themselves in Mexican society. As is to be expected of a language which has served mainly local purposes in the course of almost 500 years, Nahuatl today consists of a variety of divergent dialects. The modern dialects are usually called 'Mexicano', and it is convenient to call the recorded 'classical' form of the language 'Nahuatl'. In spite of the natural divergence of the various dialects, the primary difference between Mexicano and Nahuatl is the heavy influence from Spanish on the former.

Nahuatl is the best studied member of a large family of American Indian languages, called Uto-Aztecan, scattered over Northern Mexico and the western part of the United States. Other members of the family include Ute and Paiute, spoken in Colorado and Utah; Tübatulabal and Lu-

iseño, spoken in California; Hopi and Pima, spoken in Arizona; Yaqui and Mayo, spoken in Sonora; Tarahumara, spoken in Chihuahua; and Huichol, spoken in Jalisco and Nayarit.

The major sources of our knowledge of Nahuatl are the compilations of Spanish missionaries. The Spanish-Nahuatl and Nahuatl-Spanish dictionary of Alonso de Molina is the most valuable of the linguistic materials. There are several Nahuatl grammars, among which that of Horacio Carochi is the best. The most extensive Nahuatl texts are the manuscripts collected by Bernardino de Sahagún as the basis of his ethnographic work. (See the appendices below for details.) There are two major modern textbooks which summarize and organize this body of material.

J. Richard Andrews, *Introduction to Classical Nahuatl*, Austin: University of Texas Press, 1975.

Michel Launey, *Introduction à la langue et à la littérature aztèques*, Paris: L'Harmattan, 1979-80.

Aside from its importance as a historical and cultural medium, Nahuatl is of considerable interest as a language, very different in its structure from European languages like English.

2 Phonetics, Phonology and Orthography

The sounds of Nahuatl may be represented by the following phonemic symbols, in IPA notation.

Consonants (C)

/p/	/t/	/k/	/k ^w /	/ʔ/
	/ts/	/tʃ/	/tʃ/	
	/s/	/ʃ/		
/m/	/n/	/l/	/j/	/w/

Vowels (V)

/i/	/i:/	/o/	/o:/
/e/	/e:/	/a/	/a:/

A Nahuatl word may be analyzed into syllables of four basic types.

V	CV	VC	CVC
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The first and third types (which lack an initial consonant) do not occur following the third or fourth (which have a final consonant). That is, in a sequence VCV, the consonant syllabifies with the second vowel (with the exception of /ʔ/).

Syllable structure plays an important role in Nahuatl; the following distributional restrictions and phonological processes may be noted.

- (a) /ʔ/ does not occur in syllable initial position.
- (b) /j/ does not occur in syllable final position.
- (c) /l/ and /w/ are voiceless in syllable final position either before a voiceless consonant or word finally.
- (d) /l/ does not occur in word initial position.

(e) /m/ and /n/ contrast only in syllable initial position; in syllable final position the single nasal (which we take to be /n/) assimilates to a following consonant or is realized as nasalization of the preceding vowel.

- (f) /j/ does not occur before /i/ or /i:/.
- (g) /k^w/ and /w/ do not occur before /o/ or /o:/.
- (h) /j/ occurs after /i/ or /i:/, but is not phonetically distinct from its absence.
- (i) /w/ occurs after /o/ or /o:/, but is not phonetically distinct from its absence.
- (j) /i/ or /o/ is often inserted to eliminate impermissible consonant clusters.
- (k) Long vowels become short before /ʔ/ or word finally.
- (l) Assimilations across a syllable boundary include the following cases.

- (i) /tʰl/ and /lj/ become /ll/.
- (ii) /tʰsj/, /tʰsw/, /tʰts/, /sts/ and /ʃts/ become /tʰs/.
- (iii) /sj/, /ns/, /tʰss/, /tʰfs/ and /ʃs/ become /ss/.
- (iv) /tʰfj/, /tʰfw/, /tʰstʰf/, /stʰf/ and /ʃf/ become /tʰf/.
- (v) /ʃj/, /nf/, /tʰsf/, /tʰff/ and /sf/ become /ff/.
- (vi) /wp/ becomes /pp/.
- (vii) /wm/ becomes /mm/.

Our transcription system is due to Andrews, and is based on the romanization used by Spanish missionaries in colonial Mexico.

/p/	p	/i/	i
/t/	t	/i:/	î
/k/	c/qu	/o/	o
/k ^w /	cu/uc	/o:/	ô
/ʔ/	h	/e/	e
/tʰs/	tz	/e:/	ê
/tʰl/	tl	/a/	a
/tʰf/	ch	/a:/	â
/s/	c/z		
/ʃ/	x	/tʰs/	ttz

/m/	m	/tʃ/	cch
/n/	n		
/l/	l		
/j/	y		
/w/	hu/uh		

As in Spanish, the letter **c** represents /s/ before a front vowel (/i/, /i:/, /e/ or /e:/) and /k/ before a back vowel (/o/, /o:/, /a/ or /a:/) or syllable finally. **qu** represents /k/ before a front vowel and **z** represents /s/ before a back vowel or syllable finally. **cu** and **hu** represent /k^w/ and /w/ syllable initially, and **uc** and **uh** represent the same sounds syllable finally. In this system the letter **u** is always part of a digraph consonant, and never represents a vowel. The letters b, d, f, g, j, k, r, s, v and w are not used at all.

Since Nahuatl as spoken in the classical period cannot be studied at first hand, our account of its phonology is based on three primary sources. One of these is the descriptions of Nahuatl pronunciation in the early grammars. A second is the variation in spelling in early manuscripts and published literature. The third is the pronunciation of various forms of Mexicano. The Spanish missionaries had particular difficulty with two aspects of Nahuatl phonology: most materials do not distinguish between long and short vowels, and do not indicate the sound /ʔ/. Both phenomena are lacking in Spanish. Carochi's famous description of /ʔ/, called *saltillo* ('little jump'), is quoted below; its pronunciation as [h] in some Mexicano dialects is responsible for the choice of the letter h to represent it. As we will see, both vowel length and /ʔ/ are important in Nahuatl grammar.

3 Basic Nouns

As in most languages, there is a fundamental distinction among Nahuatl words between nouns and verbs. One manifestation of this distinction is a difference in morphological structure. Recognizing the various forms which nouns can take is important in understanding the meaning of a Nahuatl sentence. We examine first the structure and subclassification of nouns, and then we consider the structure and subclassification of verbs.

A Nahuatl noun is either an absolutive or a possessed form. The following examples are absolutive forms.

âtl 'water' **oquichtli** 'man, husband' **calli** 'house'

Each of these nouns consists of a stem followed by the absolutive suffix **-tl**. The stems are thus **â-**, **oquich-** and **cal-**. Adding **-tl** to **oquich-** or **cal-** would result in a cluster of two consonants at the end of the word, and violate the permitted syllable structure. Process (j) applies to insert the final vowel **i**. In addition process (l-i) applies to assimilate **-tli** to **-li** when it is suffixed to **cal-**. A few nouns, mostly animal names, take the suffix **-in** instead of **-tl**. Other nouns take no absolutive suffix.

tôchin 'rabbit' **chichi** 'dog'

For basic nouns, the suffix **-tl** (with its variations **-tli** and **-li**) is clearly the regular case, with **tôchin** and **chichi** being exceptional. In fact **tôchtli** is also found as a variant of **tôchin**. With some derived nouns, however, no suffix is the regular case. Examples appear later on.

The possessed forms of **âtl**, **oquichtli** and **calli** are as follows.

nâuh	noquich(hui)	nocal
mâuh	moquich(hui)	mocal
îauh	îoquich(hui)	îcal
tâuh	toquich(hui)	tocal
amâuh	amoquich(hui)	amocal
îmâuh	îmoquich(hui)	încal

These forms consist of the noun stem with a suffix different from either of the absolutive suffixes, plus a possessor prefix. The prefixes are:

no- 'my'	to- 'our'
mo- 'your'	amo- 'your'
î- 'his, her, its'	îm- 'their'

The vowel **o** in the first and second person prefixes is dropped if the noun stem begins in a vowel, as in **noquich** 'my husband'. And the final nasal consonant in **îm-** assimilates via process (e) to the initial consonant in **încal** 'their house'. The possessed suffix is **-uh**, as in **tâuh** 'our water'. Just as in the case of **-tl**, **-uh** cannot be added without change to a stem which ends in a consonant. Process (j) may apply here to create the suffix **-hui**, as in **noquichhui** 'my husband'. However, it is more common to simply drop the suffix **-uh**. Some noun stems lose their final vowel in possessed forms; these nouns never have **-hui**. This is also the case with nouns whose stem begins with a consonant; that is, no such form as ***încalhui** 'their house' is possible. For nouns whose stem begins in a vowel, both forms are possible, as **noquich/noquichhui**, but the suffixed form is common only with monosyllabic noun stems.

Nahuatl noun forms are also either singular or plural. All those given thus far are singular. In general, only nouns referring to animate beings have plural forms in Nahuatl. Therefore, of the nouns given so far, **âtl** and **calli** do not have plural forms, and in particular, **calli** 'house' or **mocal** 'your house' may refer to one or more houses, depending on the situation. The following are examples of absolutive plural noun forms.

tôtôchtin 'rabbits'	chichimeh 'dogs'
oquichtin/oquichmeh 'men, husbands'	
cihuâtl 'woman, wife'	cihuah 'women, wives'
teôtl 'god'	têteoh 'gods'

There are three absolutive plural suffixes, **-tin**, **-meh** and **-h**. In general, the first two are used with stems ending in a consonant, and the third with stems ending in a vowel, but as shown by **chichimeh**, this is not without exception. Some nouns, but not all, also reduplicate their first syllable in the plural, as in **tôtôchtin** and **têteoh**. The vowel of the reduplicated syllable is long. There are some nouns with more than one possible plural form, as with **oquichtin/oquichmeh**. Process (k) applies to shorten a long stem vowel before the suffix **-h**, as in **cihuah** and **têteoh**. Also, a few inanimate nouns which refer to geographical features or heavenly bodies have plural forms.

tepêtl 'mountain'	têtepeh 'mountains'
cítlâlin 'star'	cítlâltin 'stars'

The plural forms of possessed nouns may be illustrated as follows:

nocihuâhuân
mocihuâhuân
îcihuâhuân

nochichihuân
mochichihuân
îchichihuân

tocihuâhuân
amocihuâhuân
îzcihuâhuân

tochichihuân
amochichihuân
îchichihuân

The possessor prefixes are the same as with singulars, but there is a single invariable possessed suffix **-huân**, which might be analyzed as **-uh** plus a plural suffix **-ân**. The plurality of the noun itself is distinct from the plurality of the possessor prefix. Thus **amocihuâhuân** 'your wives' differs from both **mocihuâhuân** 'your wives' and **amocihuâuh** 'your wife'. The two latter must be taken as indicating serial marriage or polyandry. Note also the application of process (I-iii) in **îzcihuâhuân** 'their wives'.

4 Adverbial Nouns

The examples given so far illustrate the basic patterns of Nahuatl noun morphology, but there are many special types of nouns which can be defined either on morphological or syntactic grounds, or both. We will mention here two types of nouns which function adverbially. Nouns which refer primarily to places belong to the type of locative nouns. Morphologically, these are formed by attaching a locative suffix to a noun stem.

calco 'in the house'
calpan 'at the house'

nocalco 'in my house'
nocalpan 'at my house'

The locative suffixes illustrated are **-c** (**o** is inserted via process (j) when **-c** is suffixed to a stem which ends in a consonant) and **-pan**. Nouns with locative suffixes (and there are several others) may be absolute or possessed, but they are predictably never plural, nor do they take either **-tl** or **-uh**. The difference in meaning between **-c** and **-pan** is very indirectly rendered by the difference between the prepositions 'in' and 'at'. **-c** determines a more specific location than **-pan**, but other translations are possible: **calco** might mean 'to the house' or 'from the house', and **nocalpan** might mean 'to my house' or 'from my house', depending on the situation. **-c** and **-pan** are suffixes rather than prepositions, and say nothing about motion or direction. There are several other locative suffixes, and such suffixes are frequently used to form place names in Nahuatl.

mexihco 'Mexico'
xôchimilco 'Xochimilco'
tlâlpan 'Tlalpan'

The meaning of the noun stem **mexih-** is obscure, since it occurs only in this place name, but in the other two examples, the meanings are quite transparent. **xôchitl** is 'flower', **mîlli** is 'field', and **tlâlli** is 'ground' or 'land'. Both are the names of suburbs in modern Mexico City.

A second type of adverbial nouns might be called relational nouns.

nohuân 'in my company'

mopampa 'on your behalf'

The noun stems here are **-huân** 'company' and **-pampa** 'behalf'. Like locative nouns, relational nouns lack plural forms, and do not take the suffix **-uh**; in addition they occur only in possessed forms, and never in absolutive forms. Even though the meaning of the Nahuatl noun stems might be expressed without using the corresponding nouns, translating **nohuân** as 'with me' or **mo-pampa** as 'for you', in Nahuatl there is no structural equivalent of the prepositions 'in/with' or 'on/for', and the noun stem must appear. It is also common that the possessor of a relational noun be an abstraction: thus relational nouns like the following have several uses.

ihuân 'with him/it'

îca 'because of him/it'

If the possessor of these relational nouns is a sentence, then they become equivalent to conjunctions like 'and' or 'because'.

5 Derived Nouns

Nahuatl has numerous ways to derive nouns, either from basic noun stems or from verb stems. We illustrate this with two types of derivation which involve a suffix **-c**.

caleh 'having a house, house owner'

cihuâhuah 'having a wife, married man'

The suffixes **-eh** and **-huah** (where the former attaches to noun stems ending in a consonant and the latter to those ending in a vowel), derive nouns meaning 'possessor of X', where X is the meaning of the noun stem they attach to. These nouns do not take the suffix **-tl**, but their absolutive plural is formed with **-queh**.

calehqueh 'house owners'

cihuâhuahqueh 'married men'

Their possessed forms show a suffix **-câ** in addition to **-uh** or **-huân**.

nocalehcâuh 'my landlord'

amocalehcâhuân 'your landlords'

The suffix **-c** would be expected to become **-qui** in the absolutive singular via process (j), but instead it disappears. **-queh** may be analysed as **-c** plus the plural **-h**.

A similar pattern is observed in so-called agentive nouns.

micqui 'dead person, corpse'

catzâhuac 'dirty thing, filth'

tlamatqui 'clever person'

tlahcuiloh 'artist, scribe'

These are derived from verb stems, which we have not yet examined. In these cases, the relevant stems are **miqui-** 'die', **catzâhua-** 'be dirty', **mati-** 'know' and **ihcuiloâ-** 'draw/write'. The prefix **tlâ-** in the last two nouns is an object prefix, which will be discussed as part of the structure of

verbs. These nouns also do not take the absolutive singular suffix **-tl**, but some of them do appear to have a suffix **-c** which may appear as **-qui** after the application of process (j), unless the verb stem happens to end in **h**. Their plural and possessed forms are as above.

micqueh 'corpses'
tlahcuilohqueh 'artists, scribes'

momiccâuh 'your corpse'
totlahcuilohcâhuân 'our artists, scribes'

In this formation also, the suffix **-c** may be identified with the first consonant in the suffixes **-queh** and **-câ**, and analyzed as a derivational suffix distinct from either the absolutive or possessed suffixes.

6 Intransitive Verbs

The morphological structure of verbs in Nahuatl is very much more complex than is the structure of nouns. Therefore our discussion of verbs will necessarily be less complete and comprehensive than was our account of nouns. On the other hand, because a verb is the core of the sentence it belongs to, an examination of verb structure will lead naturally into the following discussion of the syntax of simple sentences.

Like nouns, Nahuatl verbs consist of a stem preceded by prefixes and followed by suffixes. The following forms are the present tense paradigms of the intransitive verbs meaning 'leave' (stem **êhua**) and 'cry' (stem **chôca**).

nêhua	têhuah	nichôca	tichôcah
têhua	amêhuah	tichôca	anchôcah
êhua	êhuah	chôca	chôcah

Three of the prefixes here resemble the possessor prefixes which occur with noun stems, but lack a final vowel.

n-	'I'	t-	'we'	am-	'you'
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They are subject to process (j), which inserts the **i** in **nichôca** 'I am crying', and to process (e), which assimilates **m** to **n** in **anchôcah** 'you are crying'. The plural suffix appears to be the same as one of the noun plural suffixes: **-h**. The prefixes and suffix are not independent, and refer to the subject of the verb. Thus **n-** can never appear with **-h**, and **am-** can never appear without **-h**. **t-** is not so restricted, but is second person ('you') when occurring as part of a singular verb form and first person ('we') in a plural verb form. There are no corresponding prefixes for the third person, and no suffixes in the singular.

Various tenses, aspects and moods may be formed by adding other prefixes or suffixes, or by changing those given above. The imperfect tense is formed by suffixing **-ya** to the stem.

êhuaya	'she was leaving'
tichôcayah	'we were crying'

The habitual present tense is similarly formed by suffixing **-ni**.

nêhuani	'I leave'
anchôcanih	'you cry'

The future tense is formed by suffixing **-z**, but with the additional presence of the suffix **-c**, introduced in our discussion of derived nouns.

têhuaz	'you will leave'
chôcazqueh	'they will cry'

The perfect tense is still more complicated, with three characteristics: an initial prefix **ô-**, loss of the stem final vowel, and the suffix **-c**.

ôêuh	'he left'
ôamêuhqueh	'you left'

However, none of the three is uniquely associated with the perfect tense; **ô-** is optional (and can be used, though less commonly, in the imperfect), **-c** is dropped in the singular after a consonant (and of course also appears in noun forms as well as the future), and some verbs do not lose their stem final vowel.

ôtichôcac	'you cried'
ôtichôcaqueh	'we cried'

The pluperfect tense is similar, except in place of **-c**, a suffix **-ca** appears.

ônêuhca	'I had left'
ôchôcacah	'they had cried'

The optative mood is formed by replacing the second person prefixes **t-** and **am-** by **x-**, and the plural suffix **-h** by **-cân**. The second person forms are used as commands.

xêhua	'leave'
chôcacân	'let them cry'

The past optative has in addition the suffix **-ni**.

têhuanicân	'if only we had left'
xichôcani	'if only you had cried'

Finally, the admonitive mood has vowel loss, or the suffix **-h** after a vowel, and the plural suffix **-tin**.

amêuhtin	'beware of leaving'
tichôcah	'beware of crying'

The non-indicative mood forms are generally used with mood particles, to be discussed as a part of sentence structure.

The above forms illustrate two classes of Nahuatl verbs, those like **êhua**, which lose their final vowel in the perfect, pluperfect and admonitive, and those like **chôca**, which do not. There is

a third class of verbs with stems which end in **iâ** or **oâ**, and use the suffix **-h** in addition to vowel loss. The forms of **choloâ** 'run away' are as follows.

ticholoah	'we are running away'
ticholoâyah	'we were running away'
ticholoânih	'we run away'
ticholôzqueh	'we will run away'
ôticholohqueh	'we ran away'
ôticholohcah	'we had run away'
ticholôcân	'let us run away'
ticholoânih	'if only we had run away'
ticholohtin	'let us beware of running away'

Note that with these verbs there is vowel loss also in the future and optative forms, as well as lengthening of the preceding vowel. The stem final long vowels are frequently shortened by process (k). In addition to the three regular verb classes, there are irregular verbs and special formations which there is not space to list.

7 Transitive verbs

All the verb forms given so far are intransitive; that is, they are accompanied syntactically by a single argument, the subject (although, due to the person and number affixes, there need be no overt subject noun phrase). Transitive verbs differ in being syntactically accompanied by one or more objects in addition to the subject. The following forms are part of the present tense paradigm of the transitive verb meaning 'see' (stem **itta**).

nêchitta	têchitta	nêchittah	têchittah
mitzitta	amêchitta	mitzittah	amêchittah
quitta	quimitta	quittah	quimittah

These forms all have third person subjects, so that there are no subject prefixes. All the prefixes illustrated represent the single object of this verb.

nêch-	'me'	têch-	'us'
mitz-	'you'	amêch-	'you'
c-	'him, her, it, them'	m-	third person plural

The object prefix **c-** is subject to process (j), which inserts the **i** in **quimitta** 'she sees them', and the spelling changes to **qu-** when a front vowel follows. The object prefix **m-** co-occurs with **c-**; as in the case of noun plural suffixes, it is used only to indicate the plurality of animate objects.

The object prefixes may co-occur with subject prefixes, as in the following forms.

nimitzitta	'I see you'
antêchittah	'you see us'

However, the first and second person object prefixes do not co-occur with subject prefixes of the same person and number; they are then replaced by the appropriate reflexive object prefixes.

no-	'myself'	to-	'ourselves'
mo-	'yourself, yourselves, himself, herself, itself, themselves'		

That is, a form like ***titêchittah** is impossible; instead there is **titottah** 'we see ourselves'. In third person forms, both **quitta** 'he sees him', and **motta** 'he sees himself' exist. As with the noun possessor prefixes, the vowel **o** of the reflexive object prefixes drops before a verb stem that begins in a vowel; the behavior of **itta** here suggests that its initial **i** is a result of process (j) rather than a part of the stem.

Unlike intransitive verbs, which sometimes have no overt prefix or suffix, a transitive verb must have an object prefix. If the object is non-specific or indefinite, there are two additional prefixes which may be used.

tê- 'someone, people' **tla-** 'something, things'

These replace the other object prefixes in forms like **nitêitta** 'I see someone' or **antlattah** 'you see things', and there are no such forms as ***nitta** or ***amittah**. Note that the vowel **i** of **itta** appears after the prefix **tê-** even though it ends in a vowel. **tê-** and **tla-** are not specified for number, and never co-occur with **m-**.

In addition to transitive verbs like **itta**, which have a single object, there exist verbs with two or more objects. The following forms are part of the present tense paradigm of the transitive verb meaning 'give' (stem **maca**).

quimaca	nêchmaca	quimomaca
quitêmaca	nêchtlamaca	
quitlamaca	têtlamaca	motlamaca

These forms all have third person subjects, so that there are no subject prefixes. In general, the same object prefixes are used for both objects of a verb like **maca**. But there is a morphological restriction which complicates the situation: the definite object prefixes **nêch-**, **têch-**, **mitz-**, **amêch-** and **c-** do not co-occur with one another. If the verb is accompanied by two objects which would normally be represented by two of these prefixes, then only the indirect object prefix appears, and the direct object is not represented by a prefix. Excepting the effects of this restriction, a verb like **maca** must have two object prefixes. Since the indirect object of **maca** is normally human, and the direct object normally non-human, the meaning of the above forms is determined. For example, **nêchmaca** 'he is giving it to me'; **quitêmaca** 'he is giving it to someone'; **quitlamaca** 'he is giving something to him'; **quimomaca** 'he is giving it to himself'.

The order of object prefixes is determined not by meaning, but by form:

nêch-					
têch-		no-			
mitz-	/ m- /	to-	/ tê- /	tla- /	stem
amêch-		mo-			
c-					

The third person plural prefix **m-** may co-occur with prefixes other than **c-** when it represents another object, as in:

mitzimmaca	'he is giving them to you'
quintêmaca	'he is giving them to someone'

Only one **m-** may occur, but it may represent the plurality of either direct or indirect object, or both.

niquimmaca	'I am giving them to him'
	'I am giving it to them'
	'I am giving them to them'

The indefinite prefixes **tê-** and **tla-**, unlike the rest, may co-occur with themselves: **têtê-** and **tlatla-** are possible prefix combinations with verb stems of the appropriate meaning. The complexity of object prefixes is unrelated to the tense, aspect or mood of the verb. The forms given above are present tense, but the tense, aspect or mood prefixes and suffixes listed in the previous section all occur with all of them.

8 Transitivity

So far we have seen examples of intransitive verbs, which have a subject but no objects, and transitive verbs, which have a subject plus one or two objects. Due to their morphological structure, these verb types are distinct and easily recognizable. There are also verbs which take no subject or objects, like **quiyahui** 'rain'. A verb like this can appear in any of the tenses, aspects or moods, but takes neither the subject or object prefixes nor the plural suffix, and appears to be invariably third person singular. Such verbs are called impersonal.

A final characteristic of Nahuatl verb morphology is the existence of derivational processes which create related verb forms of different transitivity. One such process creates causative verbs.

chôca 'cry'	chôctiâ 'make cry'
itta 'see'	ittitiâ 'show'
maca 'give'	maquiltiâ 'make give'

Causative verbs usually have the suffix **-tiâ**, but there are other causative suffixes, as well as irregular changes which affect the stem. A causative verb has one more argument than the verb from which it is derived; the added argument is the subject, and the subject of the source verb becomes an object of the causative.

A second process creates applicative verbs.

quiyahui 'rain'	quiyahuiâ 'rain on'
chôca 'cry'	chôquiliâ 'cry about'
itta 'see'	ittiliâ 'see for'

Applicative verbs usually have the suffix **-liâ**, but as with causatives there are other applicative suffixes and irregular stem changes. An applicative verb resembles causatives also in having one more argument than the verb from which it is derived, but the added argument in this case becomes an object, which may be translated into English in any of several ways, often by means of a preposition. Some verbs have more than one causative or applicative derivative, with distinct meanings.

A third process creates impersonal or passive verbs.

chôca 'cry'	chôcôhua 'cry'
itta 'see'	ittalô 'be seen'

maca 'give'**macô** 'be given'

Impersonal or passive verbs usually have one of the suffixes **-ô**, **-lô** or **-hua**, and there may be irregular stem changes in this case also. Unlike causative or applicative verbs, an impersonal or passive verb has one less argument than the verb it is derived from. If the source verb is intransitive, the resulting verb has no arguments, and is impersonal. If the source verb is transitive, the resulting verb will be passive; the original subject will be suppressed and one of the objects will become the subject of the passive verb. If the source verb had one object, the passive verb will be intransitive; otherwise it remains transitive. A general constraint on this derivational process is that both the suppressed subject of the source verb and the derived subject of a resulting passive verb must be human.

9 Predicates

Each of the various verb forms that have been presented is not only a word, but also a potential sentence.

Têhuah. 'We are leaving.'
Ôtichôcac. 'You cried.'

Moreover, in Nahuatl, nouns have the same potential to become sentences.

Xôchitl. 'It is a flower.'
Tinocihuâuh. 'You are my wife.'

If the subject of such a nominal sentence is first or second person, the noun will take the same subject prefixes as verb forms do. In these examples, there is no copula corresponding to English 'be'.

Locative nouns behave in a similar way.

Mexihco. 'That is Mexico.'
***Timexihco.**
Mexihco ticah. 'You are in Mexico.'

Locative nouns cannot take first or second person prefixes, because locations are necessarily third person. But locative nouns do occur with the Nahuatl verb of location, which has an irregular paradigm (**ticah** is the second person singular present tense), and corresponds to English locative 'be'. Some other tense forms are the following.

Mexihco ôticatca. 'You were in Mexico.'
Mexihco tiyez. 'You will be in Mexico.'
Mexihco xiye! 'Be in Mexico!'

The location verb has two different stems, **cat** and **ye**, which appear in distinct tenses, aspects or moods, and **cat** shows anomalous stem variations. It doesn't distinguish the imperfect, perfect and pluperfect: **ôticatca** is a general past tense. As a verb, it is morphologically intransitive, and the locative noun is not its subject. Perhaps the best way to categorize it is as a kind of copula, with the locative noun as a predicate nominal.

Some support for this analysis comes from the behavior of ordinary copula sentences like those above. As we saw, a predicate nominal can be marked for the person and number of its sub-

ject, but it cannot take any of the tense, aspect or mood affixes. To express such a sentence in any tense, aspect or mood other than simple present, a form of the location verb is used to support these affixes.

Xôchitl ôcatca.	'It was a flower.'
Tinocihuâuh tiyez.	'You will be my wife.'
Tinocihuâuh xiye!	'Be my wife!'

If the predicate nominal is plural or has a first or second person subject, then the plural suffix and person prefixes appear both on the noun and on the copula.

10 Sentence particles

A characteristic of Nahuatl sentence structure is the use of sentence particles, which are found in initial position. One of the most common is **ca**.

Ca têhuah.	'We are leaving.'
Ca ôtichecac.	'You cried.'
Ca xôchitl.	'It is a flower.'
Ca tinocihuâuh.	'You are my wife.'
Ca mexihco.	'That is Mexico.'
Ca mexihco ticah.	'You are in Mexico.'

The meaning of **ca** is to emphasize the predication, and its use indicates that the word or phrase following it is to be taken as a predicate. As is clear from comparing these examples with those given earlier, the presence of **ca** is never obligatory, strictly speaking. Since verbs are normally predicates, with verbal predicates **ca** is used primarily in its semantic function of indicating emphasis on the predicate; with predicate nominals, it is more common, but its syntactic function of marking the predicate predominates, and it may have little emphatic effect.

Another common sentence particle is **cuix**, which occurs in yes-no questions.

Cuix têhuah?	'Are we leaving?'
Cuix ôtichecac?	'Did you cry?'
Cuix xôchitl?	'Is it a flower?'
Cuix tinocihuâuh?	'Are you my wife?'
Cuix mexihco?	'Is that Mexico?'
Cuix mexihco ticah?	'Are you in Mexico?'

Like **ca**, **cuix** is not obligatory; questions can be indicated by intonation alone; but **ca** and **cuix** do not co-occur. In some subordinate clauses where it cannot be taken as marking a question, **cuix** has the meaning 'perhaps'.

Verbs in the imperative, optative or admonitive moods do not occur with **ca**, and since they cannot be used as questions, do not occur with **cuix** either. Characteristic of these moods is a third example of sentence particles: **mâ**.

Xêhua!	'Leave!'
Têhuanicân!	'If only we had left!'
Tichôcah!	'Beware of crying!'

Mâ xêhua!	'Leave!'
Mâ têhuanicân!	'If only we had left!'
Mâ tichôcah!	'Beware of crying!'

The meaning of **mâ** is whatever is common to these non-indicative moods, but it also serves to show that verb forms which might be ambiguous belong to one of them. It is not obligatory, but will usually appear in the third example above. With imperatives and present optatives, it also serves to soften the effect; **mâ xêhua** is more polite than **xêhua**. A more deferential imperative uses **tlâ** 'if' in place of **mâ**.

Tlâ xêhua.	'Please leave.'
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11 Arguments

The Nahuatl sentences we have seen so far are all intransitive, with the subject indicated only morphologically. It is of course possible to specify the subject of such a sentence further using a noun phrase.

Ôchôcac in cihuâtl.	'The woman cried.'
Têhuah in toquichmeh.	'We men are leaving.'
Mexihco cah in calli.	'The house is in Mexico.'

These examples show the typical verb initial word order of Nahuatl. They also illustrate the nominal particle **in**. This nominal particle does some of the work done by the English definite article 'the', but it is different in nature. If we remove it from the above examples, the effect is distinct in each case.

Ôchôcac cihuâtl.	'A woman cried.'
Têhuah toquichmeh.	'We men are leaving.'
Mexihco cah calli.	'There are houses in Mexico.'

In the first example, **in cihuâtl** is understood as definite in contrast to the indefinite **cihuâtl**. But in the second example **toquichmeh** is understood as definite whether or not **in** is there. In the third example, the variant without **in** has an existential meaning.

If the verb is transitive, noun phrases may be used to further specify each object which corresponds to a definite prefix, whether or not that prefix actually appears in the verb.

Ôquitta in oquichtli in chichi.	'The man saw the dog.'
Quimacaz in oquichtli in xôchitl in îcihuâuh.	'The man will give the flowers to his wife.'
Quimacaz xôchitl in oquichtli in îcihuâuh.	'The man will give flowers to his wife.'

Objects which appear as reflexive or indefinite prefixes may not be related to any noun phrase. In the above examples, an indefinite object (if any) will appear directly after the verb, followed by the subject, in the normal word order. Thus these sentences are not ambiguous.

But there is no indication in a noun phrase of what its relation to the predicate (its case) may be. Nahuatl noun phrases lack both morphological case and case particles. Aside from word or-

der, the only constraint on the interpretation of a noun phrase as a subject or object is whether it agrees in person and number with an affix present on the verb. This can lead to ambiguity if word order information is insufficient.

Ôquitta in oquichtli.

'The man saw it.' or 'She saw the man.'

Quimacaz xôchitl in oquichtli.

'The man will give flowers to her.' or
'She will give flowers to the man.'

Noun phrases such as those illustrated above, which serve to indicate the subject or objects of a verb are called arguments, and their number and meaning are strictly limited by the transitivity and meaning of the verb whose arguments they are.

12 Adverbials

In addition to the verb and its arguments, a Nahuatl sentence may contain adverbials, which include adverbs as well as noun phrases which are independent of the morphology of the verb. Some examples are as follows.

Nocalco niyauh.

'I am going home.'

Mexihco huîtz.

'She is coming to/from Mexico.'

Anhuetzcah noca.

'You are laughing at me.'

Ticchîhuah mocihuâuh îpampa.

'We are doing it for your wife.'

The verbs **yauh** 'go' and **huîtz** 'come' are irregular in their tense, aspect and mood morphology, but clearly intransitive. The noun phrases **nocalco** 'to my house' and **mexihco** 'to/from Mexico' are semantically and syntactically independent of the subject of either verb (the choice of 'to' or 'from' as an appropriate translation of the second phrase will depend on whether or not the speaker is in Mexico). The verbs **huetzca** 'laugh' and **chîhua** 'do' are regular (**chîhua** loses its final vowel in the perfect); **huetzca** is intransitive, and the noun phrase **noca** 'because of me' is independent of its subject. **chîhua** is transitive, and the noun phrase **mocihuâuh îpampa** '(on) your wife's account' is independent of both its subject and object. **mocihuâuh** here illustrates the genitive argument of a noun; like other arguments, it has no internal case indication, and is syntactically relatable to the possessor prefix **î-** 'his/ her/its' of **îpampa** '(on) his/ her/its account' via person and number agreement.

Nahuatl morphologically distinguishes nouns which function as heads of adverbial noun phrases from those which function as heads of argument noun phrases; this is part of the basis for the subclassification of adverbial nouns mentioned earlier. Thus it is possible to say:

Ôniquittac in mocihuâuh. 'I saw your wife.'

but not:

***Ôniquittac in mexihco.** 'I saw Mexico.'

To convey the intended meaning of the latter sentence, **mexihco** must be used adverbially.

Ônitlattac in mexihco. (lit) 'I saw things in Mexico.'

Mexihco ônitlattac.

That is, the object of **itta** 'see' must be taken as independent of the noun phrase **mexihco**, and represented as the indefinite prefix **tlá-**. Locative adverbials such as **mexihco** may appear postverbally accompanied by **in**, but they normally appear before the verb as in the second example above. Alternatively, an additional noun may be supplied.

Ôniquittac in âltepêtl mexihco.

(lit) 'I saw the city of Mexico.'

Mexihco ôniquittac in âltepêtl.

(lit) 'I saw the city in Mexico.'

Here **âltepêtl** 'town, city' is not a locative noun. It is unclear whether the noun phrase **mexihco** modifies the sentence adverbially or the object noun phrase adjectivally. The first example seems to suggest adjectival modification and the second example adverbial. See the discussion of adjectival modification below.

13 Topic and Focus

The Nahuatl sentences exemplified to this point have maintained as neutral as possible a word order, and the function of word order in clarifying the relationship between predicates and their arguments has been noted. But Nahuatl word order is also exploited for at least two other purposes.

Ôchôcac in cihuâtl. 'The woman cried.'

In cihuâtl ôchôcac. 'The woman cried.'

Ôquittac in oquichtli in chichi.

'The man saw the dog.'

In oquichtli ôquittac in chichi.

'The man saw the dog.' / 'The dog saw the man.'

In chichi ôquittac in oquichtli.

'The man saw the dog.' / 'The dog saw the man.'

A noun phrase accompanied by **in** may appear in front of the verb, as in some of the examples above. Such a noun phrase is understood as a topic of the sentence. In transitive sentences such topicalization applied to the subject or object may have the effect of introducing ambiguity, since the basic word order is no longer apparent.

A superficially similar distortion of word order appears in the following sentences.

Ôchôcac in cihuâtl. 'The woman cried.'

Ca cihuâtl in ôchôcac. 'It was a woman that cried.'

Ôquittac in oquichtli in chichi.

'The man saw the dog.'

Ca oquichtli in ôquittac in chichi.

'It was a man that saw the dog.' / 'It was a man that the dog saw.'

Ca chichi in ôquittac in oquichtli.

'It was a dog that the man saw.' / 'It was a dog that saw the man.'

As indicated by the sentence particle **ca** in some of the examples above, this type of order change involves making a noun phrase into the predicate of the sentence. This noun phrase is called the focus. The remainder of the sentence becomes the subject of this predicate, often shown by explicit nominalization with **in**. As before, ambiguity may be caused by the absence of one noun phrase from its neutral position. A constraint on focus constructions is that noun phrases with **in** cannot appear in focus position. In that case a pronoun copy is used. In the following examples, **yehhuâtl** is the third person singular pronoun.

Ca yehhuâtl in ôchôcac in cihuâtl.

'It was the woman that cried.'

Ca yehhuâtl ôquittac in oquichtli in chichi.

'It was the man that saw the dog.' / 'It was the dog man that the man saw.'

Since in the second example above the noun phrases remain in their neutral positions, the ambiguity of subject and object is eliminated, but since **yehhuâtl** can refer to either, ambiguity of the focus appears.

The set of Nahuatl pronouns to which **yehhuâtl** belongs is as follows.

nehhuâtl	'I, me'	tehhuân(tin)	'we, us'
tehhuâtl	'you'	amehhuân(tin)	'you'
yehhuâtl	'he, she, it, him, her'	yehhuân(tin)	'they, them'

In addition to their function in allowing a focus construction with definite noun phrases, they also allow for a topic construction for arguments represented only by prefixes.

Ôchôcac. 'She cried.'
In yehhuâtl ôchôcac. 'She cried.'

Ôquittac. 'He saw it.'
In yehhuâtl ôquittac. 'He saw it.'

These represent the primary uses of pronouns. In particular they may not be used as non-focussed and non-topicalized noun phrases.

***Ôchôcac in yehhuâtl.**
***Ôquittac in yehhuâtl.**
***Ôquittac in yehhuâtl in yehhuâtl.**

14 Negation, Interrogatives and Indefinites

Any Nahuatl sentence may be negated with a negative particle, which follows, or combines with, the sentence particle.

Ahmô têhuah.	'We are not leaving.'
Ahôtichôcac.	'You didn't cry.'
Ca ahxôchitl.	'It isn't a flower.'
Cuix ahmô tinocihuâuh?	'Are you not my wife?'

Mâca xêhua!	'Don't leave!'
Mâcamô têhuanicân!	'If only we had not left!'
Mânên ahtichôcah!	'Be sure to cry!'

In declarative and interrogative sentences, the negative particle is either **ahmô** or **ah-**, the latter appearing prefixed to the predicate. In optative sentences, the negative particle **-ca** or **-camô** is suffixed to **mâ**, and in admonitive sentences, the negative particle **-nên** is suffixed to **mâ** and **ah-** is prefixed to the predicate. **Mâ** is obligatory in such sentences.

Nahuatl has a set of interrogative pronouns, of which some examples are the following.

âc	'who?'
tleh	'what?'
cân	'where?'
îc	'when?'

They are nouns, but appear only as predicates.

âc?	'Who is it?'
Cân in chichi?	'Where is the dog?'
Tleh in ôtiquittac?	'What was it that you saw? / What did you see?'

That is, in order to question the argument of a verb, a focus construction must be used, as in the third sentence above. Because this is the most common usage of the interrogative pronouns, they are often combined with **in**, and written as a single word. Thus the same sentence will become:

Tlein ôtiquittac?

Similarly, the other interrogatives will become:

âquin cânin îquin

Negative pronouns are formed by combining the interrogative pronouns with the negative prefix **ah-**, which appears as **ay-** before a pronoun which begins with a vowel.

ayâc	'no one'
ahtleh	'nothing'
ahcân	'nowhere'
ayîc	'never'

These appear sentence initially following the sentence particle, but do not combine with **in**.

Ayâc ôchôcac.	'No one cried.'
Cuix ahtleh ôquittac?	'Did he see nothing? / Didn't he see anything?'
Ayîc cân niyauh.	'I am never going anywhere.'
	'/I'm not ever going anywhere.'
Ca ahcân îc niyauh.	'I am going nowhere ever.'
	'/I'm not going anywhere ever.'

As shown in the last two examples, if there is more than one negative pronoun in a sentence, both will be sentence initial but the negative prefix will appear only on the first.

Also morphologically related to interrogative pronouns are the Nahuatl indefinite pronouns.

acah	'someone'
itlah	'something'
canah	'somewhere'
icah	'sometime'

Like the negative pronouns, these too appear sentence initially and do not combine with **in**.

Acah ôchôcac.	'No one cried.'
Cuix itlah ôquittac?	'Did he see something?'
Canah niyauh.	'I am going somewhere.'
Ca icah nêhuaz.	'I will leave sometime.'

The interrogative, negative and indefinite pronouns share the semantic property of lacking definite reference. Nevertheless, when representing an object, they must co-occur with a definite object prefix, never with **tê-** or **tla-**.

- ***Tleh in ôtitlattac?**
- ***Tlein ôtitlattac?**
- ***Cuix ahtleh ôtlattac?**
- ***Cuix itlah ôtlattac?**

15 Subordination

Nahuatl has a single, simple mechanism for creating subordinate clauses, which in fact we have already encountered. A clause may be nominalized by the addition of **in**, and used as the argument of a verb or noun, or as an adverbial or adjectival modifier. In the examples which follow, subordinate clauses are marked with brackets ([]).

Ahmô quinequi in oquichtli [in quittaz in chichi].
'The man doesn't want to see the dog.'
Cuix monequi [in chôcaz in cihuâtl]?
'Does the woman have to cry?'

The verb stem **nequi** (which loses its final vowel in the perfect) is equivalent to 'want' when transitive, and to 'be necessary' with the reflexive object prefix **mo-**. The object of **nequi** in the first sentence, represented morphologically by the object prefix **qui-**, is the clause **in quittaz in chichi** 'that he will see the dog'. The subject of **monequi** in the second sentence is the clause **in chôcaz in cihuâtl** 'that the woman will cry'. Clauses which serve as complements to the verb **nequi** are in the future tense. As in other cases, the use of **in** is not strictly obligatory. The second sentence can have the following variant.

Cuix monequi [chôcaz in cihuâtl]?

In the following sentence, a clause appears as the argument of the relational noun **îca** 'because of it'. Since there are two clauses, **chôcaya** 'she was crying' and **ahtleh ôquittac** 'she saw nothing', and no clear indication of which is the main clause, the sentence is ambiguous.

Chôcaya îca ahtleh ôquittac.

'She was crying because she saw nothing.'
 /'She saw nothing because she was crying.'

If desired, it can be disambiguated either by using **in** to mark the intended subordinate clause, or by using **ca** to mark the intended main clause (or both).

Chôcaya îca [in ahtleh ôquittac].
Ca chôcaya îca [ahtleh ôquittac].
 'She was crying because she saw nothing.'

[In chôcaya] îca ahtleh ôquittac.
[Chôcaya] îca ca ahtleh ôquittac.
 'She saw nothing because she was crying.'

The sentence particles **ca**, **cuix**, **mâ** or **tlâ**, and the interrogative pronouns **âc**, **tleh**, **cân** or **îc**, may appear in subordinate clauses when their meaning is appropriate.

Momati [in chôcaya in cihuâtl].
 'He thinks that the woman was crying.'
Momati [in ca chôcaya in cihuâtl].
 'He thinks that the woman was indeed crying.'

Ahquimati [in cuix chôcaya].
 'He doesn't know whether she was crying.'
Ahmô quimati [in âquin chôcaya].
 'He doesn't know who was crying.'
Ahmô quimati [in cânin chôcaya].
 'He doesn't know where she was crying.'

The verb stem **mati** 'know' may take a question clause as its object, represented by the object prefix **qui-**. Similar to **nequi**, when **mati** occurs with the reflexive object **mo-**, its meaning changes (to 'think'); the clause is not in this case an argument of the verb, but an adverbial. **In** is optional in all these examples.

Chôca in cihuâtl [in quittaz in chichi].
 'The woman is crying so that the dog will see her.'
Chôca in cihuâtl [in mâ quitta in chichi].
 'The woman is crying so that the dog may see her.'

Chôcaz in cihuâtl [in tlâ quittaz chichi].
 'The woman will cry if she sees a dog.'
Chôcazquiya in cihuâtl [in tlâ quitta chichi].
 'The woman would cry if she saw a dog.'

Purpose clauses may appear in the future tense, or in the optative mood with **mâ**; conditional clauses also may appear in the future or the optative, but they always have **tlâ**. An optative conditional clause is understood as hypothetical, and the main clause verb is in the conditional form.

Exactly the same kinds of clauses may be used as relative clauses, either with or without a head noun.

Chôcaya in cihuâtl [in ahtleh ôquittac].

'The woman who saw nothing was crying.'

Chôcaya [in ahtleh ôquittac].

'The one who saw nothing was crying.'

Ahtleh ôquittac in cihuâtl [in chôcaya].

'The woman who was crying saw nothing.'

Ahtleh ôquittac [in chôcaya].

'The one who was crying saw nothing.'

The sentences discussed previously as focus constructions are no more than a special case of relative clauses.

Ca cihuâtl [in ahtleh ôquittac].

'It was a woman that saw nothing.'

Ca cihuâtl [in chôcaya].

'It was a woman that was crying.'

Since nouns in Nahuatl, as we have seen, can be used as predicates, it is possible to regard them as fundamentally predicates; in that case, all noun phrases become nominalized clauses, with or without **in**.

[**in cihuâtl**] 'the one who is a woman'

16 Appendices

a) Nahuatl dictionaries

In 1555, Alonso de Molina published the first edition of his Spanish-Nahuatl Dictionary (*Vocabulario en lengua castellana y mexicana*) in Mexico City; a revised and expanded version of this dictionary, together with his Nahuatl-Spanish Dictionary (*Vocabulario en lengua mexicana y castellana*) appeared in the same city in 1571. These have been the standard work in Nahuatl lexicography ever since. Details of Molina's life are scarce, but he is reported to have arrived in Mexico with his parents as a young child not long after the conquest. He became a fluent if not native speaker of Nahuatl and served as interpreter and language teacher for the first group of Franciscan missionaries to arrive in Mexico in 1524. He later joined the order himself and devoted his life to missionary activities. In addition to the dictionaries, he wrote a Nahuatl grammar and a catechism and confessional in Nahuatl.

The Nahuatl-Spanish Dictionary contains roughly 25,000 Nahuatl entries, and runs over 300 pages in the 1970 edition (see below). Though he took the 1492 Latin-Spanish and 1495 Spanish-Latin dictionaries of Antonio de Nebrija as models, Molina was obliged to work out an original method to accommodate the elaborate morphology of Nahuatl. For example, he gives full information on the transitivity and perfect tense forms of verbs. He fails to indicate long vowels or the *saltillo* in his orthography, and there are some inconsistencies as well. A fair number of Nahuatl words which appear in the definitions of the Spanish-Nahuatl Dictionary are not listed in the Nahuatl-Spanish Dictionary. But in spite of these problems, Molina's work is an astonishing accomplishment for its time and place.

After the original edition of 1571, Molina's work was reset and published in Leipzig in 1880, and once more in Puebla in 1910. A facsimile of the original was published in Madrid in 1944. A facsimile of the Leipzig edition is currently the most accessible version.

Fray Alonso de Molina, *Vocabulario en lengua castellana y mexicana y mexicana y castellana*, estudio preliminar de Miguel de Leon-Portilla, México: Editorial Porrúa, 1970.

The other major Nahuatl dictionary is based on Molina.

Rémi Siméon, *Dictionnaire de la langue nahuatl ou mexicaine*, Paris, 1885 (reprint Graz: Akademische Druck und Verlagsanstalt, 1963; Spanish version: *Diccionario de la lengua nahuatl o mexicana* (tr. Josefina Oliva de Coll), México: Siglo Veinteuno, 1977.

There is also the following English version of Molina.

R. Joe Campbell, *A Morphological Dictionary of Classical Nahuatl: a morpheme index to the Vocabulario en lengua mexicana y castellana of Fray Alonso de Molina*, Madison: Hispanic Seminary of Medieval Studies, 1985.

b) Nahuatl grammars

There were many Nahuatl grammars compiled in the years following the Spanish conquest of Mexico, but none achieved the definitive position of Molina's dictionary. Several of these were published in a collection issued in the late nineteenth century by the National Museum of Mexico.

Collección de gramáticas de la lengua mexicana, Anales del Museo Nacional, primera época, tomos 3, 4, 5, Mexico: 1885-92.

The first five grammars in the collection are as follows.

Andrés de Olmos, *Arte para aprender la lengua mexicana* (1547), pp. 1-126.

Alonso de Molina, *Arte de la lengua mexicana y castellana* (1571), pp. 127-224.

Antonio del Rincón, *Arte mexicana* (1595), pp. 225-280.

Diego de Galdo Guzmán, *Arte mexicana* (1642), pp. 281-394.

Horacio Carochi, *Arte de la lengua mexicana con la declaración de los adverbios della* (1645), pp. 395-538.

The dates given are of the original publication, except for Olmos, which was not published during the colonial period.

These grammars describe the complex morphology of Nahuatl in the framework of traditional Latin grammar with increasing accuracy and completeness. Carochi represents the culmination of this development, but his work is most remarkable for its attempt to develop a consistent transcription for long vowels and the saltillo. For long vowels, he uses a macron (e. g. ā), which is the source of our representation (â). He distinguishes between a word internal saltillo, which he represents with a grave accent on the preceding vowel (e. g. à), and a word final saltillo, which he represents with a circumflex accent (e. g. â). His descriptions of them are as follows.

(à) Se pronuncia como con salto, o singulto, o reparo, y suspensión. (It is pronounced as if with a jump, or a hiccup, or a stop, and a suspension.)

(â) Se pronuncia con fuerza, como quien va a pronunciar la aspiración h, aunque no es aspiración; la cual no se puede dar a entender por escrito, sino que es menester oírla pronunciar a los indios. (It is pronounced forcefully, as if one were going to pronounce the aspiration h, although it is not an aspiration; the sound cannot be explained in writing but must be heard pronounced by the Indians.)

Our transcription represents both as **h** (e. g. **ah**).

Unfortunately for sectarian reasons (Carochi was a Jesuit, and the Franciscans following Olmos and Molina had been established first) this more accurate transcription was not widely adopted for general purposes. In particular, Molina's dictionary was not revised to give full information for the entire vocabulary. Until modern times, the most accessible Nahuatl grammar was a shortened version of Carochi in which many of the transcriptions are garbled.

Ignacio de Paredes, *Compendio del arte de la lengua mexicana del P. Horacio Carochi*, Mexico: 1759.

Recently a facsimile of the original 1645 version of Carochi has been published in Mexico.

Horacio Carochi, *Arte de la lengua mexicana con la declaración de los adverbios della*, edición facsimilar de la publicada por Juan Ruyz en la ciudad de México 1645 con un estudio introductorio de Miguel León-Portilla, México: Universidad Nacional Autónoma de México, 1983.

c) The Nahuatl world

Aside from the linguistic materials surveyed in previous appendices, the Spanish missionaries primarily produced Christian literature in Nahuatl. An outstanding exception to this is the work of Bernardino de Sahagún. A Franciscan educated at the University of Salamanca, Sahagún came to Mexico in 1529 at about the age of thirty. Among other missionary activities, he taught Latin at the Colegio de Santa Cruz in Tlatelolco, a school founded to educate the children of the native upper classes. During the 1550s and 1560s, he directed an investigation of the pre-conquest culture of Mexico. The purpose of this effort, at least in the eyes of the colonial authorities, was to make possible a more efficient and complete conversion of the population to Christianity. His method was to interrogate people, of advanced age by that time, who had direct experience and memory of Mexican life before the Spanish arrived. Their oral responses were recorded in romanized Nahuatl and later translated into Spanish.

The result is a kind of ethnographic encyclopedia of Mexico, which covers religion, mythology, history, politics, economics, the human and natural environment: everything which Sahagún could gather information about. The Spanish version was used in manuscript form by later scholars and historians, but was not published until the 19th century. The most accessible edition is the following.

Bernardino de Sahagún, *Historia General de las Cosas de Nueva España*, 4 vols, Mexico: Editorial Porrúa, 1956-69.

What are apparently the original transcripts of the Nahuatl version (codices matritenses) are in the Royal Library in Madrid, and a complete copy of both the Nahuatl and Spanish texts with illustrations (codex florentinus) is in the Laurenzian Library in Florence. Arguably the most important single work in Nahuatl literature, these materials have been translated into German, French and

English as well as Spanish. The most useful edition is the following, which contains the Nahuatl text.

Arthur J. O. Anderson and Charles E. Dibble, ed. and trans., *The Florentine Codex: general history of the things of New Spain*, 13 vols, Santa Fe: the School of American Research and the University of Utah, 1950-69.

d) Nahuatl poetry

A substantial amount of poetry in Nahuatl exists in various forms. Most of it was not written at the instigation of the Spanish missionaries, but was apparently collected and preserved by them, Sahagún among others. From the beginning it was obscure, not only to the missionaries but to ordinary Nahuatl speakers as well. One problem is the vocabulary, which seems to be highly symbolic, but for which no interpretation has been preserved. Molina's dictionary, in particular, provides little help. The most important collection is usually called the *Cantares mexicanos*, of which there is a single manuscript in the National Library in Mexico City. It consists of 91 songs in Nahuatl, with titles and some commentary appended. A facsimile edition of the manuscript was published in Mexico early in this century.

Antonio Peñafiel, *Cantares en idioma mexicana: reproducción facsimiliaria del manuscrito original existente en la Biblioteca Nacional*, México: Secretaría de Fomento, 1904.

Serious attempts to translate and interpret the Cantares have been made by German and Mexican scholars.

Leonhard Schultze-Jena, *Alt-Aztekische Gesänge*, Stuttgart: Kohlhammer, 1957.

Angel María Garibay Kintana, *Poesía Náhuatl*, México: Universidad Nacional Autónoma de México, 1964-68.

Both of these remained incomplete due to the death of their authors, and the translations given are of dubious value. A new English translation and interpretation has recently appeared which is based on the idea that the Cantares are post-conquest, and the legacy of an anti-Spanish movement which expected supernatural assistance from the spirit world.

John Bierhorst, *Cantares Mexicanos: songs of the Aztecs*, Stanford: Stanford University Press, 1985.

John Bierhorst, *A Nahuatl-English Dictionary and Concordance to the Cantares Mexicanos*, Stanford: Stanford University Press, 1985.

Bierhorst's interpretation has proved controversial, but his scholarship is unquestionable.

e) Mexican history

The Aztec Empire was the last of a long series of polities located in central Mexico, and the heir of the civilization developed there over many centuries, only to be destroyed by the Spanish conquest. Our knowledge of what happened in this part of the world before the Spanish came is derived from archaeological study and from the remains of Aztec literature. Much of the written material is preserved only in Spanish, but historical works in Nahuatl should not be neglected.

One major source, the manuscripts assembled by Sahagún, has already been mentioned. Modern editions of the following works dating from the sixteenth and seventeenth centuries are available.

E. Mengin ed., "Unos anales históricos de la nación mexicana: die Manuscrits mexicains nr. 22 und 22 bis der Bibliothèque Nationale de Paris", *Bâssler Archiv* 22: 2-3, Berlin, 1939.

P. F. Velázquez ed., *Códice Chimalpopoca: Anales de Cuauhtitlán y Leyenda de los Soles*, México: Universidad Nacional Autónoma de México, 1945, 1975.

Fernando Alvarado Tezozomoc, *Crónica mexicáyotl*, ed. Adrián León, México: Universidad Nacional Autónoma de México, 1949, 1975.

Domingo Francisco de San Antón Muñón Chimalpahin Quauhtlehuanitzin, *Die Relationen Chimalpahins zur Geschichte Mexicos*, ed. G. Zimmermann, Hamburg: Universität Hamburg, 1965.

f) Colonial Nahuatl

During the colonial period, Nahuatl gradually ceased to function as a language of culture and a literary medium. But large communities of monolingual speakers remained, and among them Nahuatl continued to be used in written form for political and religious purposes. Recently historians have rediscovered and begun to publish documents in Nahuatl from throughout the period. The following collections which contain English translations may be consulted.

Arthur J. O. Anderson, Frances Berdan and James Lockhart, *Beyond the Codices: the Nahuatl view of colonial Mexico*, Los Angeles: UCLA Latin American Studies Series 27, 1976.

S. L. Cline and Miguel León-Portilla, *The Testaments of Culhuacan*, Los Angeles: UCLA Latin American Center Publications, 1984.

A linguistic study of such documents is also available.

Frances Karttunen and James Lockhart, *Nahuatl in the Middle Years: language contact phenomena in texts of the colonial period*, Berkeley: University of California Publications in Linguistics 85, 1976.

17 References

In the preceding appendices, some important works in and about Nahuatl have been introduced, together with information about modern editions and translations. There is a substantial literature in Spanish, English, French and German dealing with the Nahuatl language, and much more with the historical, archaeological and anthropological study of the people who spoke, and still speak it. Without repeating items from the appendices, the following also deserve the attention of anyone interested in the language and its literature. On the classical language:

Stanley Newman, 'Classical Nahuatl' in N. McQuown, ed., *Handbook of Middle American Indians*, vol. 5, Austin: University of Texas Press, 1967.

Frances Karttunen, *An Analytical Dictionary of Nahuatl*, Austin: University of Texas Press, 1983.

On historical questions:

Ronald W. Langacker, *Studies in Uto-Aztecan Grammar I: an overview of Uto-Aztecan grammar*, Dallas: Summer Institute of Linguistics, 1977.

Una Canger, *Five Studies inspired by Nahuatl Verbs in -oa*, Copenhagen: Reitzel, 1980.

Karen Dakin, *La evolución fonológica del proto-nahuatl*, México: Instituto de Investigaciones Filológicas, UNAM, 1982.

On modern Nahuatl:

Benjamin Lee Whorf, 'The Milpa Alta dialect of Aztec' in H. Hoijer, ed., *Linguistic Structures of Native America*, New York: Viking Fund Publications in Anthropology, 1946.

Dow Robinson, ed., *Aztec Studies I*, Norman: Summer Institute of Linguistics, 1969.

Dow Robinson, *Aztec Studies II: Sierra Nahuatl word structure*, Norman: Summer Institute of Linguistics, 1970.

Ronald W. Langacker, ed., *Studies in Uto-Aztecan Grammar II: Modern Aztec grammatical sketches*, Dallas: Summer Institute of Linguistics, 1979.

Lyle Campbell, *The Pipil Language of El Salvador*, Berlin: Mouton, 1985.

Harold and Mary Key, *Vocabulario mexicano de la Sierra de Zacapoaxtla*, Puebla, México: Summer Institute of Linguistics, 1953.

Forrest and Jean Brewer, *Vocabulario mexicano de Tetelcingo*, Morelos, México: Summer Institute of Linguistics, 1962.

Richard and Patricia Beller, *Curso de nahuatl moderno*, México: Summer Institute of Linguistics, vol. 1, 1976; vol. 2, 1979.

Jane and Kenneth Hill, *Speaking Mexicano*, Tucson: University of Arizona Press. 1986.

Modern linguistic studies:

Frances Karttunen, ed., *Nahuatl Studies in memory of Fernando Horcasitas*, Austin: University of Texas, 1981.

On Nahuatl literature:

Angel María Garibay Kintana, *Historia de la literatura nahuatl*, 2 vols., México: Editorial Porrúa, 1953-54.

Miguel León-Portilla, *La filosofía nahuatl estudiada en sus fuentes*, México: Universidad Nacional Autónoma de México, 1966, 1974.

On Aztec culture and history:

Munro S. Edmonson, ed., *Sixteenth Century Mexico*, Albuquerque: School of American Research and the University of New Mexico, 1974.

J. Jorge Klor de Alva, H. B. Nicholson and Eloise Quiñones Keber, eds., *The Work of Bernardino de Sahagun, pioneer ethnographer of sixteenth century Aztec Mexico*, Albany: Institute for Meso-American Studies (distributed by University of Texas Press), 1988.

The following annual journal is devoted to Nahuatl studies.

Estudios de Cultura Nahuatl, México: Universidad Nacional Autónoma de México.

18 Conclusion

In the foregoing, I have tried to give as complete a survey of the Nahuatl language as the space available would allow. No doubt many readers would have preferred to see some real Nahuatl instead of simple examples with a strictly limited vocabulary; others would have preferred more information about things which have been mentioned only briefly: the religion and culture of Nahuatl speakers, their literature, or the forms of the language in current use in rural Mexico. Unfortunately, there has not been space to cover everything, so perhaps I may be forgiven for concentrating on those areas where my interests lie: the grammatical structure of Nahuatl and the materials which contribute to our knowledge of it. The language itself is after all an indispensable prerequisite for cultural or literary studies. And it is not difficult to master modern Nahuatl on the basis of a knowledge of the classical language; but the reverse is certainly not the case.

In preparing this discussion, I have been indebted to William Bright, my former colleague at UCLA, who taught me most of what I know about Nahuatl; to Professors Yoshimitsu Narita and Seisaku Kawakami of Osaka University, who allowed me to teach Nahuatl there, without which experience I would not have attempted such a thing; and to all my students, but especially to Chitose Asaoka and Noriko Uekawa, who translated it into Japanese for me. Masumi Matsumoto also gave valuable advice on the Japanese translation.