





PRELIMINARY LESSON

Phonetics and Writing

ince the time of the conquest, Nahuatl has been written by means of the Latin alphabet. There is, therefore, a long tradition to which it is preferable to conform for the most part. Nonetheless, for the following reasons, some words in this book are written in an orthography that differs from the traditional one.

- ▶ The orthography is, of course, "hispanicized." To represent the phonetic elements of Nahuatl, the letters or combinations of letters that represent identical or similar sounds in Spanish are used. Hence, there is no problem with the sounds that exist in both languages, not to mention those that are lacking in Nahuatl (**b**, **d**, **g**, **r** etc.). On the other hand, those that exist in Nahuatl but not in Spanish are found in alternate spellings, or are even altogether ignored. In particular, this is the case with vowel length and (even worse) with the glottal stop (see Table 1.1), which are systematically marked only by two grammarians, Horacio Carochi and Aldama y Guevara, and in a text named *Bancroft Dialogues*.¹
- ▶ This defective character is heightened by a certain fluctuation because the orthography of Nahuatl has never really been fixed. Hence, certain texts represent the vowel /i/ indifferently with i or j, others always represent it with i but extend this spelling to consonantal /y/, that is, to a different phoneme. Most texts represent with -ia, -oa the sequence of sounds that in phonetic terms can be either /-ia/, /-oa/ (two vowels in hiatus) or /-iya/, /-owa/ (vowel, consonant, vowel) etc. Therefore, it is necessary to regularize such writings in the form of an unequivocal notation.

¹ Horacio Carochi, *Arte de la lengua mexicana* 1645; Aldama y Guevara, *Arte de la lengua mexicana* 1754; F. Karttunen and J. Lockhart, eds., *The Art of Nahuatl Speech: The Bancroft Dialogues* (Los Angeles: University of California Press, 1987).



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TABLE 1.1							
Vowels							
/a/	a	[a]					
/e/	e	$[arepsilon]$ or $[\mathrm{e}]$	free variation between the e of 'b e t' and the sound represented by a in 'b a te', though without the y -glide after the vowel				
/i/	i	[i]	the sound of 'feet', but pronounced shorter; not as in 'pin'				
/0/	0	[၁], [o] or [u]	varies between an open and close o sound, may approach the u of gl u e				
/a:/	ā	[a:]	long [a], as in f a ther				
/e:/	ē	[e:]	long [e], as in ag ai n, without the y -glide after the vowel				
/i:/	ī	[i:]	long [i], as in f ee t				
/0:/	Ō	[o:]	varies between the close o of h o ve and the u sound of pr o ve				
Consonants							
/p/	p	[p]	in initial position, it never is followed by a puff of air, as the corresponding English sound would				
/t/	t	[t]	u				
/k/	qu (before i, e) c (elsewhere)	[k]	И				
/c/	tz	[ts]	like ts in ts etse; counts as one consonant				
/č/	ch	[t∫]	like ch in ch air, but with no puff of air; counts as one consonant				
/λ/	ti	[tl]	counts as one consonant				
/k ^w /	cu (before vowel) uc (elsewhere)	[kw]	like qu in qu iet, but with no puff of air; counts as one consonant				
/m/	m	[m]					
/n/	n	[n]					
/s/	s (before i, e) z (elsewhere)	[s]	always voiceless as in 'cat s ', never voiced as in 'dog s '				
/š/	X	[∫]	as in ' sh ip'				
/y/	у	[j]	as in ' y ard'				
/w/	hu (before vowels)uh (elsewhere)	[w]	as in ' w ar'; cf. the Spanish loanword 'chi hu a hu a'				
/\/	1	[1]	always with the "light" sound of 'be ll ' and never the "dark" sound of 'ba ll '				
<i> </i> '/	` (on non-final vowels) ^ (on final vowels)		glottal stop; as in the non-standard between the words 'a apple'				



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TABLE 1.2

- c before e, i represents [s].
 before a, o and consonants and at the end of words represents [k].
- cu (prevocalic)/uc (preconsonantal and word final) are the equivalent of English qu [kw].
 Note. chua (and chue, chui) represent c+hu+a(e/i) and hence are read /kwa/ (/kwe/, /kwi/). The spelling used to represent /čwa/ is chhua (ch+hu+a).
- h appears only in association with other letters:ch represents /č/.
 - hu- (prevocalic)/-uh (preconsonantal and word final) represents /w/
- is often pronounced [u] (as in 'boot').
- **q** appears only in the combinations **que**, **qui**, **quē** and **quī**, which represent /ke/, /ki/, /kē/ and /kī/.
- u appears only in association with other letters:
 cu-, -uc representing /kw/ (see earlier discussion).
 hu-, -uh representing /w/ (see earlier discussion).
- x represents /š/ as in 'ship' and is never pronounced like 'extra' or 'exact'.
- **z** represents /s/ before **a**, **o**, consonants or in word final position and is never pronounced like English voiced **z** as in 'zoom'.

The notation proposed here has the advantage of representing the phonetic reality of Nahuatl while remaining close to the traditional system (both the precise usage of Carochi's grammar and the regular practice of actual documents). It is better to start out using a precise orthography and then turn to texts in which the orthography is less exact rather than to begin via a defective orthography that will necessitate later corrections because it is always more difficult to shift to proper usage once bad habits have become ingrained.

Tables 1.1 and 1.2 should be useful both for people familiar with the problems of phonetics and for those who are not.

Table 1.1 starts with phonetic elements and then gives the spelling for them. From left to right are found the phonetic element between slashes (those who are not students of phonetics will not worry about this); its written notation, in boldface; its realization (pronunciation) between square brackets in the International Phonetic Alphabet (IPA), with notes on any problems that arise (in the absence of notes, the reader is to consider that the writing in square brackets is equivalent to English spelling).

Table 1.2 starts with letters and gives their phonetic representation. Here we restrict ourselves to the letters or groups of letters that present certain difficulties from the point of view of English.



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The macron ($\bar{}$) above a vowel indicates that it is long (e.g., $\bar{}$ 0).

A grave accent (`) above a non-final vowel and a circumflex accent (`) over a final vowel indicate that that vowel is followed by the glottal stop (often referred to with the Spanish word "saltillo," see note 3).

COMPLEMENTARY NOTES

1 Accent

The accent in Nahuatl is both tonic and melodic, so that one syllable of each word is pronounced more emphatically and in a higher pitch than the others.

The accented syllable is the next-to-last (penultimate) syllable of the word. The only exception (apart from monosyllables, which are obviously accented on their only syllable) is the vocative (forms by which people are addressed or summoned). Vocatives are accented on the last syllable, and this exceptional accent is indicated here with an acute accent (') on that vowel. Examples:

nopiltzin 'my dear child' (accented on **-pil-**) nopiltzé '0 my dear child!' (accented on **-tzé**)

2 -11-

This spelling represents a double I (and not a palatalized Spanish I like the sound in English million). Thus, **calli** is pronounced **cal-li**, with both I's fully articulated.

3 / 1

This phoneme, which the old grammars call the "saltillo," is written with a grave accent (in the middle of a word) or a circumflex (at the end of a word) on the preceding vowel (the sound only appears after a vowel). These orthographic conventions go back to the Jesuit grammarian Horacio Carochi. Thanks to his work (as well as the modern dialects), the existence of this consonant is known for Classical Nahuatl (the majority of old texts fail to mark it).

The saltillo can be realized as a glottal occlusion. This sound exists in German at the front of words whose spelling begins with a vowel. It does not appear in standard English words but appears in the middle of the interjections 'uhoh' and the non-standard pronunciation 'a apple'. The glottal stop also is used in the Cockney pronunciation of words like 'bottle'. It can be heard as an interruption of the flow of air caused by closing the glottis (the opening between the vocals chords). Thus, to pronounce the Nahuatl **èecatl** 'wind', you can momentarily cut off the flow of your breath between the two **e**'s.



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However, the saltillo can also be realized as /h/, as in the English 'horse'. This is how it generally appears in modern dialects, and we advise the reader to adopt this pronunciation. This sound is very weak in word-final position (e.g., cochî 'they sleep', tlacuâ 'they eat') and in front of the nasal consonants m and n (e.g., àmo 'not'). It is clearly stronger in front of other consonants as well as intervocalically (e.g., èecatl 'wind', tlàtoa 'he speaks', tlàcuiloa 'he writes', àci 'he arrives', yèhuātl 'he'; in some modern dialects, its pronunciation in the last word approaches that of the Spanish 'jota' or the velar spirant of the German 'nach', the Scottish 'loch').

▶ *Note*. It sometimes happens that in analyzing a word it is necessary to separate the saltillo from the preceding vowel, and in this case, it will be represented with an apostrophe. For example, the word **ticochî** 'we sleep' is analyzed as follows: **ti**- third person plural subject prefix; -**cochi**- stem of the verb for 'sleep'; -' (saltillo) marker of the plural. This analysis is spelled **ti-cochi**-'.

4 tz, ch, tl, cu (uc)

These sounds, though phonologically complex, are considered single consonants and not consonantal clusters. That is, each is a single "sound" consisting of two methods of articulation that in English are considered separate and distinct sounds.

At the end of the word, be careful to pronounce $-\mathbf{tl}$ as a single consonant. The Nahuatl words $\mathbf{\bar{a}tl}$ 'water', $\mathbf{m\bar{t}tl}$ 'arrow' and \mathbf{etl} 'bean' are monosyllabic: there is no vocalic effect on [1], which is just a part of the complex consonant $/\lambda/$, in contrast with English words like 'cattle', 'beetle', 'kettle', in which there is a syllable break after the $-\mathbf{t}$ and the word-final /1/ ($-\mathbf{le}$ in English orthography).

Similarly, the two-consonant spellings **qu** and **hu** (**uh**) represent phonetically simple consonants (respectively /k/ and /w/).

5 /kw/

This consonant presents no problems of pronunciation in the prevocalic position (written \mathbf{cu}): \mathbf{tlacua} 'he eats'. However, it can also be found in preconsonantal and word-final position (written \mathbf{uc}), which seems odd to an English speaker. A word like $\mathbf{t\bar{e}uctli}$ 'lord' (phonologically /te: $k^w\lambda i$ /) has two syllables, with the accent on the $\bar{\mathbf{e}}$. You have to try to pronounce the [k] and the [w] elements at the same time. If you find this difficult, you can, as a last resort, pronounce the [w] in front of the [k] ($[te:^wktli]$), but you have to make sure that the [w] doesn't become a vowel. The word must not be pronounced 'tē-uc-tli' (with three syllables), much less 'tē-cut-li'.

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6 Word-final and syllable-final consonants

In word-final position, a weakening of certain consonants takes place. In particular:

- ► The nasal consonants /m/ and /n/ are articulated very weakly and with an imprecise point of articulation that makes them easy to be confused (see, e.g., 8.4²). We always represent this sound with **n** (traditional orthography represents it this way or frequently doesn't represent it at all).
- ▶ /l/ is devoiced to [l], that is, a voiceless l (without the vibration of the vocal chords). You have to get used to making this sound after a vowel, for example, in nocal 'my house', nopil 'my son', icel 'he alone',
- ▶ /w/ is similarly devoiced as [w]. This sound does not exist in English. It is merely a puff of air that is emitted from the mouth with rounded lips: ōquichīuh 'he did it', ōmocāuh 'he remained'.
- \blacktriangleright /y/ is also devoiced, and it is then confused with /š/. The result is usually written **x** (see, e.g., 8.4), but in a few cases **z** (see, e.g., 29.1).

In syllable-final position (i.e., in the middle of a word before a consonant, see 1.3), the same phenomena take place, apart from the treatment of nasal consonants, whose point of articulation depends on that of the following consonant (see 1.3).

7 Words of Spanish origin

Some are modified in accordance with Nahuatl phonology: **cahuayo** 'horse' (Sp. 'caballo'), **Caxtillān** 'Spain' (Sp. 'Castilla'); in **Caxtillān** the double **l** is pronounced in the Nahuatl manner and the **-n** is analogous with Nahuatl place names in **-tlān**, **-lān**, see 30.6); see 23.2 for further details. The majority, however, remain in their original form and are to be pronounced in the Spanish manner: **padre** 'father' (i.e., Catholic priest), **marqués** 'marquis', **diablo** 'devil', **Dios** 'god' (i.e., the Christian God, the Nahuatl **teōtl** being reserved for the pagan gods). The same goes for proper names, though again some are adapted: **Petolo** (more frequently **Pedro**) 'Peter'.

8 Difficult consonantal clusters

Certain consonantal clusters like **-tzch-**, **-chtz-**, **-tztz-** and **-chch-** can be articulated in a simplified way, with the first consonant having a tendency to be dropped. Thus, **mitzchiya** 'he's waiting for you' and **nēchchiya** 'he's waiting for me' can be pronounced as merely **michiya**, **nēchiya**.

 $^{^2}$ In citations like this, the number before the period signifies the lesson and the one after it the subsection, with a comma separating the numbers of different subsections within the same lesson.



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EXERCISE 1

Read the following words in a loud voice (pay attention to the accent):

āmatl	paper	citlālin	star
quicaqui	he hears him	xihuitl	year
nocamac	in my mouth	xōchitl	flower
etl	beans	yacatl	nose
tetl	stone	mōyōtl	mosquito
tēntli	lip	mināya	he hides
calli	house	huāqui	it dries up
ōme	two	huāllāuh	he comes
tōtōtl	bird	noconēuh	my child
piltōntli	child	cualāni	he gets angry
quipiya	he keeps it	nomīl	my field
quicelia ³	he receives it	calê	he has a house
quitlālia	he places it	cochî	they're sleeping
quipoloa	he loses it, he destroys	èecatl	wind
	it	tōptli	coffer, chest
yāōtl	enemy	tōpco	in the coffer
teōtl	god	cactli	shoe
pāqui	he's happy	tōchtli	rabbit
tēmictia	he kills (someone)	tlatzcan	cypress
quilitl	quelite (an edible	tecpatl	flint
	grass)	itztli	obsidian, razor
quimaca	he gives it to him	itzmōlini	it sprouts
tzontli	hair	tēuctli	lord
chapōlin	grasshopper	neuctli	honey
chichi	dog	cencâ	very
tletl	fire	tēnyô	famous
cualli	good, beautiful	ēyi	three
yèhuātl	he, she, it	cāmpa	where
•	(third person	tepoztli	metal, copper,
	independent		iron
	pronoun)	icxitl	foot
tēcuāni	wild animal	tlaxcalli	tortilla
ōquitzauc	he closed it	āmoxtli	book
zoquitl	mud	yēcyōtl	honesty, goodness
cēcēc	cold	totēucyo	our lord
		•	

 $^{^3}$ In words ending **-ia**, **-oa**, the accent is on the **i** or **o** because two vowels separated by hiatus make two syllables.



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teuhyô	dusty	tilmàtli	cape, coat
niccua	I eat it	àci	he arrives
nictlazòtla	I love her	àcualli	bad
tlàtoāni	ruler, king	tzàtzi	he shouts
Mēxìco	Mexico (City) ⁴	àmo	not

EXERCISE 2

Pronunciation of certain difficult consonants.

- (1) The glottal stop (see Complementary Note 3)
 - ▶ pronounced weakly: àmo *not*; mìmati *he's clever, dextrous*; quìnecui *he smells it*; ōmicquê *they died*; tlacuāzquê *they'll eat*; cihuâ *women*; miquî *they die*; tēteô *gods*.
 - ▶ pronounced strongly: tlàtòquê *rulers*, *kings*; tlàtlacoāni *sinner*; àco *upward*; àci *he arrives*; nèhuātl *I, me*; òtli *road*; mìtoa *it is said*; nictlàpaloa *I greet him*; tzàtzi *he's shouting*; chìcha *he spits*; ìiyōtl *breath*.
- (2) /w/ (written **uh**) in word- or syllable-final position (see Complementary Note 6). The word written **iuh** is phonologically /iw/, that is, the only vowel is **i**, and any pronunciation like 'you' is to be avoided. Similarly:

ōnicchīuh *I did it*; ōniccāuh *I left it*; ōpoliuh *he's disappeared*; ōniccōuh *I bought it*; ōmēuh *he got up*; ōticchīuhquê *we did it*; ōticcāuhquê *we left it*; ōticcōuhquê *we bought it*; ōmēuhquê *they got up*; cuauhtlâ *woods*, *forest*; noconēuh *my child*; nocihuāuh *my wife*; nomīuh *my arrow*; cuauhtzintli *little tree*; cuāuhtin *eagles*; cuāuhyōtl *the nature of eagles*.

(3) /k^w/ (written **uc**) in word- or syllable-final position (see Complementary Note 5, with attention to the pronunction of **tēuctli**):

iucci *it cooks* (pronounce it [ik^wsi] and not 'ee-ouksi'); neuctli *honey*; tzauctli *glue*; ōquitzauc *he's closed him in*; ōniquìneuc *I've smelled it*; chiucnāhui *nine*; notēucyo *my lord*.

EXERCISE 3

Now read this text in a loud voice:

Nopiltzé, nocōzqué, noquetzalé, ōtiyōl, ōtitlācat, ōtimotlālticpacquīxtīco; in ītlālticpac in totēucyo ōmitzyōcox, ōmitzpīc, ōmitztlācatilî in īpalnemōhuani in Dios. Auh mīxco mocpac ōtitlachixquê in timonānhuān, in timotàhuān, īhuān in māhuìhuān, in motlàhuān, in mohuānyōlquê ō mīxco ō mocpac

⁴ In this book, *Mexico* will be used to refer to the pre-Columbian and colonial city that is now known in English as Mexico City.



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tlachixquê, ōchōcaquê, ōtlaōcoxquê mopampatzinco in ic ōtiyōl, in ic ōtitlācat in tlālticpac.

Translation: "My dear child, my jewel, my beautiful feather, you were conceived, you were born, you came upon the earth. It's Our Lord, it's God, our creator, who formed and created you and placed you on the earth. We considered you, we who are your mother and father; your aunts and uncles, your relatives also considered you, and they groaned and were touched when you were born and came to the world."

EXERCISE 4

If you have studied phonetics, transcribe exercises 1 and 3 in phonetic notation. If you have not studied phonetics but wish to give this a try, consult the first column of Table 1.2 for the phonetic symbols.