

## OCHPANIZTLI AND CLASSICAL NAHUATL SYLLABLE STRUCTURE<sup>1</sup>

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The generally accepted interpretation of the name for the eleventh month, Ochpaniztli, is 'sweeping of the road'.

Siméon (1885, p. 314) writes about Ochpaniztli, "Ile mois de l'année (Clav). Tous les nobles et plébéiens balayaient alors les temples, les chemins; de là l'expression *ochpaniztli*, balayage des chemins... RR. *otli*, *tlachpana*".

Seler (1927, p. 171) translates *ochpaniztli* by "das 'Wegfegen'". Lehmann (1974, p. 162, 485) translates it "den Weg fegen".

Garibay in various places translates the word "barrimiento de caminos", and in the Glosario to his edition of Durán, *Historia de las indias de Nueva España* (1967, I, p. 312) he cites Durán's explanation of *ochpaniztli*, "Día de barrer" and then adds. "Es deficiente la versión: significa el vocablo 'barrimiento de los caminos'. Ich-pana-ohlti."

Finally, Anderson and Dibble in their translation of the *Florentine Codex* (Book 2, p. 110) render Ochpaniztli by "The Sweeping of the Way". In support, I suppose, of this translation, they cite Garibay and Seler.

The interpretation is based on the assumption that the word *ochpaniztli* is a compound of the words for 'road' and for 'sweeping'. I wish to demonstrate that this assumption is without basis and that the traditional interpretation of Ochpaniztli is unsupported and cannot be maintained.

In order to make the arguments entering into the demonstration clear, I shall have to begin by discussing one aspect of Classical Nahuatl.

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Nahuatl words can be divided into syllables and the many syllables found in the language can be classified for example according to whether they begin with a consonant or a vowel, and according to whether they end in a consonant or a vowel.

In this connection the terms consonants and vowels are not used in the sense of the actual written letters, but rather referring to the phonemes which the letters represent. Thus two *letters* may very well represent one *phoneme*; that is in fact the case with tl for [λ], ch for [č], cu for [kʷ], uh for [w] tz for [tʃ], etc.<sup>2</sup> This observation is by no means new. Carochi wrote in 1645 (p. 401), "Otra letra tienen parecida en la pronunciación a la z. y a la c. pero es de más fuerte pronunciación, corresponde a la letra hebrea llamada *Tsade*; escriuese en esta lengua con t. y z. como *Nitzàtzi*, yo grito. *Nimitz nōtza*, yo te llamo: *pero es una sola letra, aunque se escriue con dos.*" [Emphasis added.]

An attempt at classifying the syllables according to their configuration of consonant phonemes and vowel phonemes will lead to only four different types of syllables, namely CVC (C here stands for consonant phoneme and V for vowel phoneme), CV, VC, and V. In other words, no Nahuatl word can be found which begins or ends in two consonants and in no Nahuatl word will there be three consonants in a sequence. Two consonants in a cluster will—given the cited types of syllables—belong to two different syllables, thus the word *tlalhuacitli* "island, dry land" is made up of three syllables, CVC-CVC-CV. The first two of the type CVC and the last of the type CV, *tlal-huac-tli*. If one uses a phonemic transcription with just one symbol for each phoneme in order to interpret the orthography, the configuration of the syllables will be more easily recognizable, thus *λalwakli*, *λal-wak-li* (CVC-CVC-CV).

The importance and the reality of these limitations on Classical Nahuatl syllable structure can be observed in several places in the morphology of the language:

An object in the third person singular is represented by a prefix attached to the verb. In addition it may be represented by some noun or pronoun, which is not affixed to the verb, however, this is not obligatory. The mentioned prefix occurs in two different shapes

<sup>2</sup> The symbols which are used in the phonemic transcription and which are not identical with those found in the traditional orthography are the following: [tʃ] for tz, [č] for ch, [λ] for tl, [k] for c or qu, [kʷ] for cu or qu, [s] for z c, or c, [w] for o, u, hu, or uh, [y] for i, j, or y, [ʔ] for "saltillo", and [:] after a vowel indicating that it is long.

or variants, *k* and *ki*. Carochi (p. 412) says about the distribution of the two variants, "...en terceras personas de singular y plural [as subjects]; y en la segunda del plural la *c*. se buelue en *qui*, quando el verbo empeçare por consonante, por que la *c*. no se pudiera sin mucha dificultad pronunciar como se verá en los exemplos, y para ellos sirua el verbo *mictia*, matar, o aporrear...

nicmictia	[nikmiktia]	yo le mato
ticmictia	[tikmiktia]	tú le matas
quimictia	[kimiktia]	aquel le mata
ticmictiâ	[tikmiktia?]	nosotros le matamos
anquimictiâ	[ankimiktia?]	vosotros le matays
quimictiâ	[kimiktia?]	aquellos le matan

Mal se puede pronunciar *cmictia*, o *ancmictia*; y por esto la *c*. se buelue en *qui*, en las personas dichas."

He states the choice of variant partly in terms of person and number of the subject and then offers an explanation referring to ease or difficulty of pronunciation. However, it is not the structure of human speech organs that are at the root of the pronouncing difficulties adduced by Carochi; KCV- is a common beginning of words in several Mayan languages. In Mam for example we find *kčub* 'a measure', *k'bi*: 'their name', *knet* 'is found', but also other clusters of two or more consonants in initial position are frequent and seem perfectly natural to the speakers, e.g. *tbi* 'he hears it', *něi:nab* 'my marimba', *tšbakšel* 'steam', *tšhlqʔab* 'her ring'.

It is a common observation that people find combinations of sounds which do not occur in their native language difficult to pronounce and strangely unnatural.

Thus the pronouncing difficulties which *kmiktia* and *ankmiktia* are said to present are due precisely to limitations on the types of syllables allowed in Classical Nahuatl.

At least two interpretations of the *k~ki* alternation are possible:

- 1) The basic form is *k*, whenever the occurrence of this *k* gives rise to a cluster of two consonants in one syllable, then an *i* is inserted after the *k*, *kmiktia* (*kmik-ti-a*) → *kimiktia*, *ankmiktia*? (*an-kmik-ti-a*? or *ank-mik-ti-a*?) → *an-ki-mik-ti-a*?
- 2) Another interpretation would be that *ki* is the basic form and that the *i* is dropped whenever this does *not* give rise to a cluster of two consonants in one syllable,

nikimiktia	→	nik-miktia
tikimiktia	→	tik-mik-ti-a
kimiktia		(kmiktia)
tikimiktia?	→	tik-mik-ti-a?
ankimiktia?		(ankmiktia?)

Whichever variant is considered basic, *k* or *ki*, it is the limitations on syllable structure, namely the fact that no syllable of the shape CCVC or CVCC occurs or is allowed, which determines when to insert an *i* according to one interpretation and when to drop the *i* according to the other interpretation. In other words it is the observed limitations on syllable structure which determine the choice between the two variants, *k* and *ki*, expressing 'third person, singular, object'.

Surely the choice between *k* and *ki* has got nothing to do with 'third person, subject' or with 'second person, plural, subject', but only with the way in which these subjects are marked, whether with CV, with VC, or with an absence of phonemes.

The two variants of the absolutive suffix offer another example of the limitations on syllable structure: *λ* is found after vowels and *li* is found after consonants others than *l* in which environment *li* is changed by assimilation into *li* *cihuahatl* [siwaλ] 'woman', *oquichtli* [okičli] 'man', *calli* [kalli] 'house'. If the variant *λ* were used after consonants we would get a syllable ending in two consonants, \**oquichtl* [okičl]. When looking at the orthography alone one may get the impression that the variant *li* in some cases appears after a vowel, viz *tatli* 'father', *citli* 'rabbit', etc. However, this is due to an inadequacy of the traditional orthography in which one consonant, the so-called saltillo, a kind of glottal stop, is not noted. Carochi puts it this way (p. 404), "Y de passo se aduierta por regla infalible que estos nombres acabados en *tli*, al qual *tli* precede inmediatamente alguna vocal, tienen saltillo sobre la tal vocal, como *montàtli* [montaʔli], *suegro*: *chiquàtli* [či:kʷʔli], *lechuça*: y aunque se pierda este *tli* en el plural, o en composicion deste nombre con otras diciones pospuestas, siempre conserva el saltillo la dicha vocal." In his *Arte*, Carochi consistently notes the saltillo by a grave accent on the preceding vowel or in utterance final position by a circumflex on the preceding vowel.

Thus in connection with the suffixation of *li*~*λ* 'absolutive' the saltillo patterns as a consonant phoneme. That this is true in general can be seen in other parts of the morphology.

One of the rules governing the formation of the perfect tense states that the final vowel of the present tense is dropped unless it is preceded by *two* consonants, in which case the suffix *k* is added, e.g. *teki* 'cut', perf *tek*; *itki* 'carry' perf *itki-k*. The rule is clearly connected with the specific Nahuatl limitations on syllable structure; if the final *i* of *itki* were dropped the word (and the syllable) would end in two consonants, *itk*. Examples offer themselves which show that glottal stop also here functions as a consonant. I can do no better than quote Carochi (p. 431). He says "...toman *c.* en el preterito los verbos, que despues de su penultima syllaba, o en ella tienen dos consonantes, como *itta*, ver;" and later he goes on about glottal stop "Tambien toman *c.* los verbos, que en la penultima syllaba tienen saltillo, como *àhua* [a<sup>ʔ</sup>wa] reñir, *onicàhuac* [onika<sup>ʔ</sup>-wak]: *Pàti* [pa<sup>ʔ</sup>ti], sanar; neutro *onipàtic* [onipa<sup>ʔ</sup>tik]. Pero *pāti* [pa:ti], sin saltillo, que significa deshazerse como sal, nieue, &c. sigue la regla general, *ōpāt* [o:pa:t], se ha deshecho; *chìcha* [čì<sup>ʔ</sup>čà], escupir, *ōnichìchac* [o:ničì<sup>ʔ</sup>čak]."

In the preceding sections I have advanced the claim that only four types of syllables are found in Classical Nahuatl; this claim is supported by empirical evidence, and its limiting effects have been demonstrated by two examples from the morphology (*k~ki* 'third person, singular, object' and *λ~λ* 'absolute'). The latter example gave rise to a second claim, namely that glottal stop is and functions as a consonant in Classical Nahuatl; this new claim was again supported by an example from the verbal morphology, namely the formation of the 'perfect'.

We are now equipped to take a second look at the traditional interpretation of *ochpaniztli*.

Initially I cited five different sources in which *ochpaniztli* is taken to mean 'sweeping of the roads'. Of these five only Siméon and Garibay are explicit as to how we must analyze the word in order to give it this meaning. I must presume that the authors of the three remaining sources have analyzed the word in the same way. Siméon gives his analysis by quoting the two words or roots which enter into the compound, "RR otli, tlachpaniztli". As users of the dictionary we are expected to know that before the two can be "put together" the absolute suffix, *tli*, is removed from the first word and the prefix indicating 'indefinite object', *tla*, is removed from the second word: *o-chpaniztli*.

Elsewhere in the dictionary we find that the word *otli* means

'road, way' and that the verb *tlachpana* (from which *tlachpaniztli* is a regularly formed abstract noun) means 'sweep, clean'. Thus the result appears to be a regularly formed abstract noun meaning 'sweeping' with an object, 'road', prefixed to it, and that is a perfectly acceptable construction in Classical Nahuatl.

Garibay's analysis is slightly different from Siméon's. He agrees with Siméon in that *ochpaniztli* is composed of two words, and that they are the noun meaning 'road' and some form of the verb meaning 'sweep'. However, he quotes the two words differently, *oh-tli* and *ichpana*. The *h* in *oh-tli* represents what I have called saltillo or glottal stop and written  $\text{ʔ}$ . He further assumes that we know that the absolutive suffix drops and that the *i* of *ichpana* disappears when the two words are joined.

The result, *ohchpaniztli* [ $\text{o}^{\text{ʔ}}\text{chpanisli}$ ], does not conform to the syllable patterns characteristic of Classical Nahuatl. The word contains a cluster of three consonants, — $\text{ʔchp}$ —, and if we divide it into syllables we get either *VCC-CV-CVC-CV* [ $\text{o}^{\text{ʔ}}\text{-pa-nis-li}$ ] or *VC-CCV-CVC-CV* [ $\text{o}^{\text{ʔ}}\text{chpa-nisli}$ ]. Neither VCC nor CCV is a possible syllable in Classical Nahuatl.

Thus, if there is a glottal stop in the word for 'road', then the analysis of *ochpaniztli* into [ $\text{o}^{\text{ʔ}}\text{chpa-nisli}$ ] with the meaning 'road-sweeping' is improbable because it assumes the existence of a cluster of three consonants.

Since glottal stops are not usually noted in the traditional orthography, their presence can not always be conclusively established. However, there is a number of reasons for considering the glottal stop in the word for 'road' to be established beyond doubt:

a) Carochi consistently notes it with a glottal stop after the *o*, *otli* (p. 419, 455, 482, and 485).

b) It has already been mentioned that the variant, *li*, of the absolutive occurs only immediately following a consonant as opposed to *l* which is found only after vowels, so there must be some consonant between *o* and *li*, and saltillo or glottal stop is the only consonant which is systematically not represented in the traditional orthography.

c) The word for 'road' is attested in a number of modern Nahuatl dialects, and everywhere with a consonant after the *o*, Milpa Alta, D.F., *otli* (Whorf 1946, p. 377); Sierra de Zacapoaxtla, Puebla, *ojti* (Key/Key 1953, p. 180); Tetelcingo, Morelos, *ojtli* (pl. ojme)

(Brewer/Brewer 1962, p. 169); for Pipil of El Salvador Schultze-Jena (p. 355) gives úxti.<sup>3</sup>

Thus the glottal stop of *otli* [oʔli] seems to be established and Siméon's and Garibay's analysis of *ochpaniztli* thereby shown to be in disagreement with one aspect of the structure of Classical Nahuatl.

Another analysis of *ochpaniztli* based upon the same interpretation, namely 'sweeping of roads', has been suggested. In an unpublished grammatical sketch of Classical Nahuatl, Eike Hinz (p. 5) discusses the various forms of the nouns and where these forms are used (possessive, absolutive, and compositive). One of his examples is the word for 'road', and one of the variants of this word is given as *oč*. In other words, according to his analysis, *ochpaniztli* is made up of a form of the word 'road', *oč*, and a form of the word 'sweep', *pana*. While this analysis is perfectly possible in the sense that it does not violate any of the rules observed to be at work in Classical Nahuatl, it is still not very plausible for a number of reasons:

a) In other compounds the word for 'road' appears in various shapes, but not as *oč*, "otenco [oʔ-tenko] cerca del camino" (Mol. 78r); "oquetza [oʔ-keʧa] hazer camino" (Mol. 77r); "oittitia [oʔ-ittitia] mostrar el camino a otro" (Mol. 76r); "ouipoloa [oʔwi-poloa]... perdre son chemin" (Sim. 326); "otlatoca [oʔla-toka] caminar" (Mol. 78r).

b) The assumption that the word for 'road' has several variants of which two are *oʔ* and *oč* implies an alternation between glottal stop and č, an alternation which is not observed elsewhere in the language although glottal stop participates in other alternations. There are examples of glottal stop alternating with *t*, e.g. [we:weʔ] 'old man' - [we:wet-keʔ] 'old man', and [kaʔ] 'he is' - [kat-ka] 'he was'; and it may be maintained that the perfect offers examples of an alternation between glottal stop and *k*, [lakʷa] 'he eats', [lakʷa-ʔ] 'he has eaten' - [lapaka] 'he washes', [lapaka-k] 'he has washed'.

c) As for the second member of the assumed compound, no simple form, *pa*, *pani* or *pana*, meaning 'sweep' or 'clean' exists. Thus both [oč] and [pani(sʌ)] seem to be unique to [očpanisʌi], and I can find no arguments in support of the analysis.

<sup>3</sup> In most modern dialects we find a velar or laryngeal fricative (in the orthographies written *j* or *X*) corresponding to the saltillo of Classical Nahuatl.

What is then *ochpaniztli*? And what does it mean? *Ochpaniztli* is a simple abstract noun meaning 'sweeping' or 'cleaning'.

In order to understand that, we have to look at a restricted group of verbs that begin with a vowel and two consonants, VCC-. In some of these verbs the initial vowel is dropped when preceded by another vowel; examples of this type are *ilpia* 'tie' and *izcalia* 'wake up'. When the verb for 'tie' is preceded by *tlā* 'indefinite, inanimate object', we get *tlā-ilpia* [lālpia] 'he ties something', and when it is preceded by the prefix *mo* indicating 'third person, reflexive', we get *mo-ilpia*. When the verb is preceded by the prefix *ki~k* 'third person, singular, object', we get [kilpia], here we have no way of determining whether it is the *i* of the verb that has dropped, [ki-lpia], or whether it is the short variant of the prefix which has been chosen, [k-ilpia].

The verb for 'sweep' is mostly found with *tlā* 'indefinite, inanimate object', *tlachpana* [lāčpana], and that form gives no clue as to the quality of the vowel which has dropped after the *tlā*, but the form shows that there must have been *some* vowel, otherwise the verb would begin with two consonants \**chpana* [čpana] and that we know disagrees with the rules of Nahuatl syllable structure.

My hypothesis is that the first vowel of the verb 'sweep, clean' is *o*, and that the name of the eleventh month is a simple, uncompounded abstract noun formed from precisely this verb.

Crucial to this hypothesis is that the first vowel of the verb 'sweep, clean' is in fact *o* and not some other vowel. Arguments in favor of an *o* are:

a) The *o* regularly appears when the verb is constructed with the prefix for 'third person, object', *k~ki*, and with various incorporated nominal objects, *njcochpana* [nikočpana] 'I sweep it' (A/D Book 11, p. 267), *tecacalochpana* [tekakaločpana] 'he sweeps the houses for people' (A/D Book 4, p. 43) analyzed into [te-] 'indefinite, animate object', [ka-kal-] 'houses', and [očpana] 'sweep'<sup>4</sup> *calcuichochpana* kalk<sup>w</sup>ičočpana] 'deshollinar' (Mol. 11v) analyzed into [kal-] 'house', [k<sup>w</sup>ič-] 'soot', and [očpana] 'clean'; *xiuhochpana* 'desueruar' (Mol. 159v) analyzed into *šiw-* 'weed' and [očpana] 'clean'; *texcalochpanoni* [teškaločpanoni] 'barredero de hornos' (Mol. 112v) analyzed into [teškal-] 'oven' and [očpanoni] 'one who sweeps or cleans'; and *no<sup>?</sup>pitzacochpana* [no<sup>?</sup>pičakočpana] 'I sweep or clean the

<sup>4</sup> I cannot explain why Anderson and Dibble translate this word "he swept people's paths for them". [emphasis added].

narrow road' (A/D Book 11, p. 267) analyzed into [n-] 'first person, subject', [oʔ] 'road', [piʔak] 'narrow', and [očpana] 'sweep or clean'. These examples also serve to show that the basic meaning of *ochpana* is more generally 'clean' or 'clear of' rather than specifically 'sweep'.

b) One word for 'broom' in Classical Nahuatl begins in *o*, *ochpanoaztli* [očpanwasli] (A/D Book 2, p. 158; Book 4, p. 3; Sim. p. 314.)

c) In various modern dialects the verb 'sweep' has an initial *o*, in Sierra de Zacapoaxtla "cochpana, lo barre (de barrer)" (Key/Key p. 145), "ki-očpana 'he sweeps it'" (Robinson, p. 164), and in Matlapa, San Luis Potosí "nikočpankin 'I swept it'" (Croft, p. 33).

The most serious objection that can be advanced against this simple explanation of the name *ochpaniztli* is that abstract nouns in *-(l)iztli* which are formed from transitive verbs must have an explicit object, either an actual noun or *tila* 'indefinite, inanimate object' or *te* 'indefinite, animate object' prefixed to it. So if an abstract noun were formed from *ochpana*, one would rather expect something like *tlachpaniztli* or *tlachpanaliztli* (Car. p. 450) 'the sweeping of something', and such an abstract noun in fact occurs, *tlachpanaliztli* 'el acto de barrer' (e.g. Mol. 117v; A/D Book 2, p. 186; Book 4, p. 63).

So *ochpaniztli* cannot be formed from the transitive verb meaning 'sweep, clean', *ochpana*; it must be formed from the corresponding *intransitive* verb. Normally intransitive verbs have a form different from that of the corresponding transitive verbs,

poloa	transitive	'lose'
poliwi	intransitive	'get lost'
kotona	transitive	'break, cut'
kotoni	intransitive	'break'
čipi:nia	transitive	'drop'
čipi:ni	intransitive	'drip'

However, inchoative verbs ending in *-wa* and a few other verbs retain the same form whether they are used transitively or intransitively, e.g.,

čika:wa	transitive	'strengthen'
	intransitive	'become strong'

aʔsi	{	transitive	'reach, overtake'
	}	intransitive	'arrive'
pa:ki	{	transitive	'enjoy'
	}	intransitive	'be happy'

Molina and Siméon cite our verb for 'sweep' only as being used transitively with [la-] 'indefinite, inanimate object', *tlachpana* 'barrrer'. But the two dictionaries are by no means exhaustive; we have already seen that *ochpana* also occurs with the prefix *k~ki* indicating 'definite, third person, object'; and occasional intransitive uses of *ochpana* are found in the literature, e.g. *xochpana* [šočpana] 'sweep' (A/D Book 6, p. 33). It thus appears that *ochpana* belongs to the small group of verbs which unchanged are used both transitively and intransitively.

According to this analysis the name of the eleventh month is an abstract noun regularly derived from the verb *ochpana*, which is used both transitively and intransitively, and it means nothing but '(the act of) cleaning or sweeping'.

A few problems still remain however. First of all there is a word *ochpantli* 'camino ancho y real' (Mol. 75r). But what is a wide road if not a place cleared of weeds and swept and kept clean. The more common narrow road or trail appears and stays naturally where people walk much, but the wider road must be somehow artificially kept wide through a conscious effort. *Ochpantli* is just another noun derived from the intransitively used *ochpana*, and only secondarily does it mean 'road', while the primary meaning is 'something which is swept and kept clean or clear'.

Secondly, where did Garibay get the form *ichpana*? Garibay may have seen the form in Siméon's dictionary. Siméon (p. 53) unexplicably analyzes *calcuichochpana* into RR *calcuichtli*, *ichpana*. He may also have known the verb to have an initial *i* in certain modern Nahuatl dialects. In Cuatlamayán, Ciudad Santos, San Luis Potosí, the following forms are found *šikičpa:na* 'bárelo' and *ičpōya:wīl* 'escoba' (Kaufman, p. 112). The *i* here no doubt represents a reanalysis on the part of the speakers: *ki-očpa:na* is realized *kičpa:-na*, the form is reinterpreted, whereby the *i* becomes part of the verb, *k-ičpa:na*.

Thirdly, with whom did the interpretation 'sweeping of the roads' originate? I believe it comes from Siméon. In no earlier source is 'sweeping of the roads' given as the only possible understanding of *ochpaniztli*. The early writers suggest just 'sweeping' (*barrimiento*, *acto de barrer*, *tiempo de barrer*), and some add 'sweeping of roads and public places' as a second possibility. Clavijero, who wrote his *Historia Antigua de Mexico* in the 1770ies and who knew the early Mexican literature, wrote about the month *ochpaniztli* (p. 189),

En este mes se hacía revista de las tropas mexicanas, y se alistaban los jóvenes que se destinaban al empleo de las armas y que en adelante debían salir a campaña siempre que se ofreciese; barrían todos, nobles y plebeyos, los templos, y por este motivo se dio al mes el nombre de *ochpaniztli*, que significa el acto de barrer. Se limpiaban y aderezaban los caminos y se reparaban las calzadas, los acueductos y las casas, en lo cual intervenían muchos sacrificios y ritos supersticiosos.

But in his eagerness to analyze as many words as possible for the dictionary, Siméon saw a connection between the initial *o* of *ochpaniztli* and the root *o-tli* 'road', and later scholars have blindly accepted this interpretation.

The purpose of this paper has been not only to replace the traditional and generally accepted interpretation of the word *ochpaniztli* by a new interpretation. To me it has been just as important to demonstrate how knowledge of the structure of the language provides us with tools and arguments necessary in our interpretation of the words and the texts.

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