

The history of the Nawa language group
from the earliest times to the sixteenth century:
some initial results

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Part I: The geographical spread and linguistic diversification of Nawa: foreign contacts.

ABSTRACT. Etymological study of the lexicon of Nawa and other Meso-American languages, coupled with lexico-statistics and studies of regional syntactic variation in Nawa, point to many specific hypotheses about the places, times, and cultural content of the different linguistic strata of Nawa. Beginning as at least part-time agriculturalists beyond the Northern frontier of Meso-America and in contact with Koran, Nawa was in turn influenced by Mije-Sokean, Wastekan, and Totonakan before beginning to show regional variation. Linguistic facts preclude the presence of Nawa in the Valley of Mexico before 500 CE. Subsequent to the arrival of Nawa in central Mexico, regional variants of Nawa were influenced by more Wasteko, more Totonako, more Mije-Sokean, various Oto-Mangean, and other Mayan languages.

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By way of prefatory remarks, I would like to say that I have been doing comparative work on Yuta-Nawan (aka Uto-Aztecan) languages since 1960. I have done field work on Nawa in 1969, 1979, 1984, 1986, 1987, 1990, 1991, and 1993. I have a great deal of lexical and textual data on Huasteca Nawa, which accounts for 400,000 to 700,000 (about half) of the somewhat more than a million speakers of present-day Nawa. I became interested in the linguistic prehistory of Nawa as soon as I became aware in detail of its linguistic traits.

The prehistoric linguistic, geographic, and racial connexions of the Aztecs and other Nawa-speakers have fascinated Meso-Americanists for decades, if not longer. The Northern origin of the Nawa language and its speakers is generally acknowledged. But the question of when the Nawa language entered Meso-America, from what quarter, and by bearers of what culture is not a matter about which there is a widely-accepted opinion. Bearing in mind that there is no natural connexion between race, language, and culture, we

will not need to devise hypotheses which will link these traits. The relevant facts for determining how Nawa entered Meso-America are found in the diachronic linguistic structure, borrowed lexicon, and linguistic geography of the language.

Nawa shows certain traits linking it to its Yuta-Nawan congeners. It has certain lexical borrowings from known languages. It has a known geographical spread and a calibratable internal diversification.

I would like to run through a set of observations and propositions:

[a] The Aztecs (the Triple Alliance ruled from Tenochtitlan) spoke Nawa, and maybe some other languages.

[b] Some Meso-American languages that were not in close contact with the Aztecs have Nawa loanwords.

[c] If the Toltecs spoke Nawa, this would account for the remaining Meso-American languages having Nawa loanwords.

[d] In developing from pre-Nawa to attested Nawa, a considerable amount of phonological change occurred, even since 500 CE. The recognizable loans from Nawa in Meso-American languages show little necessity for postulating a different phonological patterning from what we currently know. Thus the Nawa loans come from a period of time surely limited to the last 1000 years, if not less. If there were earlier kinds of YN loans in MA languages, we could recognize them. For example, in various Meso-American languages we can recognize Mije-Sokean loans that go back to 500 BCE and earlier.

Having worked on three different types of Nawa, since 1979 I have been quite interested in the internal diversification of Nawa. Most influential in my developing thinking on this topic have been several articles by Una Canger. Once I understood what Canger had to say I believed my own interpretation of the 'dialectological' data would have to be somewhat different from Canger's. I was pleased to see that in her 1988 IJAL article that she had arrived at a position rather similar, though not identical, to my own.

The basic issues are that there are three major types of Nawa, with a total of about 15 minor (or lower-level) types. There is a major division between eastern types, central types, and western types. Huasteca Nawa, which has clear eastern traits, was first linked by Canger with the central type, primarily, I imagine, because Huasteca Nawa and Classical Nawa (a central variety) are both very conservative phonologically. In her latest study Canger recognizes the eastern affiliation of Huasteca Nawa, with which I concur. Huasteca Nawa was thought by Hasler to form a branch in its own right.

Nawa may be classified as follows:

Nawan

- A. Pochuteko
- B. General Nawa
 - 1. Eastern Nawa
 - a. Pipil; Gulf/Isthmus
 - b. Sierra de Puebla; Huasteca
 - 2. Central-Western Nawa
 - a. Central Nawa (Valleys of Mexico-Morelos-Puebla; Tlaxcala; C Guerrero; SE Puebla)
 - b. Western Nawa (Toluca; N Guerrero; SE Guerrero; Michoaca*n, Guadalajara, Durango)

Proto-Nawan is like Vulgar Latin or proto-Romance; alternatively, it is like Anglo-Frisian: proto General Nawa is like Old English; Pipil is like Scots; Pochuteko is like Frisian.

OR, MORE ELABORATELY:

Pochuteko is analogous to	Frisian
Eastern Nawa	Northern English
Pipil	Scots
Isthmus-Gulf Nawa	Cumbrian English
Sierra de Puebla Nawa	Northumberland English
Huasteca Nawa	Yorkshire English
Central & Western Nawa	Midland & Southern English
Central Nawa	Midland English
Malinche Nawa	Stafford English
Morelos Nawa	Northampton English
Valley of Mexico Nawa	London English
Mejicano of Chiapas	Irish English
Mejicano of Guatemala	American English
Western Nawa	Southern English
Po*maro-Mejicanero Nawa	Wexford English

Glottochronology or lexicostatistics, as performed by Ken Hale, Morris Swadesh, Luckenbach & Levy, and Wick Miller, suggest that Pochutec broke off from General Nawa about 500 CE.

Since 500 CE is the approximate time of the demise of Teotihuaca*n civilization, and the archeological record shows evidence of new and simpler cultural patterns in the Valley of Mexico about that time, the simplest way of integrating the data on loan-words from Nawa with the lexicostatic data is to assume that Nawa came into MA from the north about 500 CE; it mostly settled into a continuous area in parts of the Valley of Mexico and adjacent regions, but one group, pre-Pochuteko, kept moving, and separated from the rest of Nawa, and ended up on the Pacific coast of Oaxaca. Without doubt many indigenous inhabitants of Central Mexico speaking Wastekan, Totonakan, Pamean, Matlatzinkan, Otomi*-Masawa, and Chorotegan (Chiapaneko-Mange) languages shifted to Nawa. Cholulans = Cholultekans = Chorotegas [Naw. /cho:lo:l-te:ka-h/], speaking Chorotegan, fled to Chiapas and Honduras-Nicaragua.

Ca. 535/536 CE there was a blow-up of Krakatoa (actually "Krakatao") and in the aftermath there was climatic degradation world-wide ca. 535/536-541/542 (reported on Nova: "Secrets of the Dead", PBS, 2000). There was a 30-year drought in Mexico from ca. 535-585. At Teotihuaca*n during the sixth century there was a significant increase of juvenile skeletons with evidence of nutritional deficiency; elite dwellings were wrecked, and temples were burnt.

The next major break within Nawa is between Eastern Nawa and the rest, which lexicostatistically dates from ca. 800 CE.

Huasteca Nawa, and before it the Nawa-speaking principality of Meztitla*n, occupy a significant part of the area of the hinterland of Toltec Tula, Hidalgo. Currently, the vicinity of the site of Tula is occupied by Otomi*s, who have opportunistically occupied many parts of northern MA that became marginalized when irrigation agriculture and terracing were abandoned by the end of the 16th century, due to the drastic population shrinkage engendered by the Spanish Conquest. At the Conquest the area of NE MA from Tula to Tuxpan was occupied by a continuous band of Nawa speech, not necessarily belonging to a single polity, but in any case not Aztecs/Me:xihkah/Mejicanos. This form of Nawa is in contact with Wasteko along a fairly long shared boundary, and many Wasteko-origin names for local flora and fauna have filtered into the Nawa of the lowland regions between the Sierra Madre Oriental and the Gulf. A fair part of the area where Huasteca Nawa is currently spoken was probably Wasteko-speaking a thousand years ago and less.

I hypothesize that around 800 CE Eastern Nawa broke off from General Nawa by migrating NE-ward from the Valley of Mexico to the area of Tula /to:lla:n/, and into contact with Wasteko. Alternatively, we may suppose that the whole area from Tula to Mexico was a single intercommunicating dialect which split in two for social reasons about 800 CE; this seems less likely to me. A third possibility is that Nawa settled around Tula around 500 CE, and spread to Central Mexico around 800 CE; this seems most unlikely. From Tula, colonies went forth that yielded Pipil, Gulf/Isthmus Nawa, and Sierra de Puebla Nawa. Huasteca Nawa is in my view a fairly direct descendant of the Nawa of Toltec Tula. Pipil came into contact with Mayan, Xinkan, and Lenkan; Isthmus Nawa came into contact with Mije-Sokean languages, especially Highland Gulf Sokean (Sierra Popoluca), and Sierra de Puebla Nawa came into contact with Wasteko and Totonako.

Lexicostatistically, Western Nawa separates from Central Nawa about 1000 CE.

I hypothesize that around 1000 CE, Nawa spread from the Valley of Mexico-Morelos-Puebla to Toluca, North Guerrero, South Guerrero, and Michoaca*n. Toluca Nawa came into contact with Malatzinca, and Michoaca*n Nawa came into contact with Tarasco. Guerrero Nawa came into contact with Tlapaneko and possibly Amusgo.

Around 1200 Central Nawa of Mexico-Morelos-Puebla became the vehicle of a powerful polity and thus tended to influence neighboring kinds of Nawa.

The fact that the Teno:chkah claimed to be descended from Chichimecs who may have entered the valley of Mexico from due north about 1200 CE does not mean they spoke Nawa while they were savages or northern barbarians, which is what the word Chichimeko /chi:chi:me:katl/ seems to mean. While the Aztecs, as their traditions say, may have originated from barbarians who came from the North, they were not Nawa speakers at that time. These barbarians arrived about 1200 CE, while Nawa entered Meso-America around 500 CE. Sapir had it wrong.

Around 1400 CE Western Nawa spread from Michoaca*n to Durango. In Durango it came into contact with Kora.

At about the same time, a certain degree of influence spread from Central Nawa to Huasteca Nawa.

In all the places where Nawa has gone, it has acquired linguistic traits, most noticeably lexical, from the languages that were already there.

Thus the study of the internal diversification of Nawa suggests a center of dispersal for General Nawa starting in Central Mexico about 900 CE. A prior split in Nawa between Pochutec and General Nawa, dates to 500 CE.

It is not my purpose here to justify the internal classification I have made for Nawa; most of the relevant data can be found in Canger 1988. I will, however refer to the what I believe to be the most important traits that help to distinguish and group the various types of Nawa. Proto-Nawa had

- o:+ remote past marker [proclitic]
- #kE participial adjective formant
- :wA versive of w-adjectives
- +/-tin plural of pronouns and quantifiers (< *tI mE)
- V-drop in verbs when followed by
 preterit marker -@kE,
 linker -@tI
 nominalizer -@ka:
 and several other suffixes
 [All of these suffixes were originally enclitics, which
induced/permitted word-final dropping of historically short vowels.]
- met noun plural (< *mE tI)

How the various forms of Nawa kept, modified, or transformed these markers are the main ways that I use to classify Nawa dialects. As already argued in great detail by Canger, the fate of proto-Nawan *tl is of no use in classifying forms of Nawa.

In order to trace the prehistory of Nawa back behind the period 500-900 CE we need to have a clear picture of what linguistic elements are common to all forms of Nawa and which ones are localized.

The most important findings of my research in this respect are that all forms of Nawa support the existence of Mije-Sokean, Wasteko, and Totonako material in pre-800 Nawa (probably pre-500, but Pochuteko data is sparse). This suggests that Nawa came in contact with these languages on entering MA, or even before.

There was an Olmec-looking presence in Northern and Western MA in Olmec times, from about 1000 to 400 BCE. [Cf. Chalcatzingo]

The Wastekos have probably been in their historically-known location since 1800 BCE, and they (or the Kabils [Chicomuceltecos]) probably occupied the central Veracruz region as well until about 1100 CE, when they were overrun and/or driven out by Totonakos. This means that before 1100 CE, Totonako and Tepewa were probably limited to the highlands east and northeast of the Valley of Mexico, but possibly including part of the Valley of Mexico.

Nawa has certain phonological traits that link it to Kora and Wichol, but the overall diachronic development trajectory of Nawa does not involve a close connexion with Kora-Wichol over a very long period of time; that is, the Nawa to Kora-Wichol similarities are due to contact, not shared evolution.

Nawa shares a four-vowel system /i e a o/ with Pamean languages. No other MA languages of Northern Mexico have this (or any) four-vowel system. To be sure, in a relatively small number of morphemes mostly reflecting pYN *u, proto-Nawan had a fifth vowel, *[i] (which yields /e/ in some Central Nawa varieties and /i/ elsewhere). But the two reflexes of *[i], and thus the two varieties of Nawa, could have existed even before Nawa entered Meso-America. Since Pochuteko merges proto-Nawa short *i, *e, and *[i], it does not support or require this distinction: neither is it inharmonious with it.

From 400 BCE until 500 CE we may postulate a stomping-ground for the pre-Nawas between the Kora-Wichols and the Wastekos, say, around the area of the city of San Luis Potosí. In this period Nawa received a small number of Mije-Sokean loans and a greater number of Wasteko loans.

After 500 CE, when General Nawa moved into Central Mexico, it acquired some Totonakan loans. It did not acquire any Otomí, Masawa, or Matlatzinka-Tlawika (= Okwilteko) loans, as far as I have been able to see.

This raises the question of who was living in the Valley of Mexico in 500 CE. Besides Nawas, the current indigenous occupants include Otomí, Masawas, Matlatzinkas, and Tlawikas. In 500 CE Otomí-Masawa and Matlatzinka-Tlawika were two distinct languages. There are no Totonakos or Tepewas in Central Mexico. But more than one ethnohistorical source reports that Totonakos were supposed to have built Teotihuacán /teo:tiwahka:n/. But, if true, did that mean 'build with their own hands' or 'have somebody build'? The presence of apparent Totonako loans (but few of them) [cf. Justeson, et al. 1985] in other MA languages suggests that indeed Teotihuacán civilization was partly borne by Totonako speakers.

There is a set of Totonako loans common to all forms of Nawa, one characteristic phonological trait, one borrowed derivational suffix, and certain semantic strategies in word formation that reflect Totonako influence.

An integrated (not just lexicostatistic) reconstruction of the diversification of Oto-Mangean languages [Kaufman 1988] suggests that Cholula may have had speakers of Chorotegan until about 600 CE. The Valley of Toluca and Xochicalco probably had Matlatzinka-Tlawika occupants; if Otomi*-Masawas were in the Valley of Mexico, and they probably were, there is no evidence that they provided loans to other MA languages in any significant numbers.

Common to all forms of Nawa is a set of Mije-Sokean loans, at least one grammatical morpheme, and both morphological and syntactic patterns that result from Mije-Sokean grammatical influence.

Among groups known to have been in the neighborhood of the Valley of Mexico, Totonako is in fact the best candidate for the language of the most important group of Teotihuacanos, no matter how 'important' is defined.

But maybe Mije-Sokean is a better bet, since the degree of Mije-Sokean influence on Nawa is probably even greater than that from Totonako. There was no Mije-Sokean speaking population in central Mexico at the arrival of the Spanish. But the Mije-Sokean loans found in ALL types of Nawa indicate that there existed a Mije-Sokean population in or near the Valley of Mexico sometime in the period 400 BCE to 500 CE, and of course, possibly later.

Some of the evidence for my hypotheses is found in the sections that follow. There is more, but not a lot that is common to all forms of Nawa. Regional forms of Nawa, however, usually show a substantial lexical influence from the original, often still coterritorial, languages. It should be kept in mind that **Meso-American languages do not borrow much from each other, and any amount of borrowing that permeates a whole language or dialect area is evidence of a serious amount of language contact.**

As a last observation, I have collected at least 10,000 lexical items in Huasteca Nawa, and I have made a complete list of the morphemes found in this data. Apart from Spanish loans, there are approximately 3000 root morphemes and somewhat over 100 affixes. Only about 400 or less of the root morphemes have UA etymologies. Around 100 or so are from Huastec. This leaves a very large number of morphemes, most of which have cognates in other forms of Nawa, whose origins or connexions have not yet been traced. Working through this data should provide many hours of harmless entertainment for quite a few people.

I thank Lyle Campbell for help in assembling some of the relevant data.

Evidence for the position of Nawan within Yuta-Nawan and its foreign contacts.

Nawa may be SYN or a separate branch of YN, but is not NYN.

[1] SYN traits:

pYN *[i] > SYN (minus Tepiman) *e
pYN *hC, *nC > *C
pSYN *sunu 'maize' > pNawa *s[i]-nV-ta

[2] Of uncertain interpretation:

Nawa seems to reflect pYN final features *n, *h, *: as
pre-Nawa */:/.

In pre-Nawa non-first syllable originally short vowels are dropped unless there would result clusters of three consonants between vowels or of two consonants in word final position. Non-first syllable long vowels get shortened but not dropped. In proto-Nawa long vowels in non-first syllables have resulted from contraction of V-V clusters (often originally interrupted by a weak consonant that was later dropped).

[3] Contacts with Coran:

pYN *p > SYN *v > Coran & Nawa *h > Nawa *0
pYN #*wo > Coran & Nawa #*ho > Nawa #*o
pYN *u > Coran & Nawa *[i]

Lexical borrowings in Nawan are signalled/strongly suggested by initial /p/ in nouns, by the sequences /xa/, /xe/, /xo/, /cha/, /che/, /cho/ ...

[4] Contacts with Pamean:

Four-vowel system, specifically /i e a o/

General Nawa

[5] Contacts with Mije-Sokean:

pMS *kakawa 'cacao' > Nawa kakawa-tl
pSo *ku7ak 'footgear' > Nawa kak-tli
pMS *ko-pak 'head' > Nawa kopa:k-tli 'roof of mouth'
ALSO =kpa-k 'above'
pMi *pus 'to cut' > Nawa pos=tekI (tekI by itself also means 'cut');
te=pos-tli 'metal' (te 'stone')
pSo *pata7 'mat' > Nawa petla-tl
?? pMS *na7aw 'old man, husband' > Nawa na:wal-li ~ na:wal-in
'shape-shifter'
pMS *tu(7)nuk 'turkey' > Nawa to:tol-in
pMS *(hah)cuku(7) 'ant' > tzi:ka-tl
pMS *sam 'to heat' > Nawa xami-tl 'tortilla' (Pochutec); 'trivet,
adobe brick (General Nawa)'
pMS *tuk.7uy 'to enter' (< *tuk 'house') is the model for Nawa
kal=akI 'to enter' < kal 'house' + akI 'to be able to be
inserted, to fit'

[6] Contacts with Wasteko:

Was txotxob 'hoof' > Nawa chochol-li 'deer's hoof'
Was book 'pulque' (< pre-Was *wo(:)k < pMayan *woq 'bubbling') >
Nawa ok-tli
Was kutxu7 'parrot' (< pMayan *quch 'hooked') > Nawa kocho(-tl)

Was ojox 'breadnut' (< pMayan *ojx) > Nawa ohoxih-tli ~
 ohox-tli (> SEChiapas Sp ujushte)
 (GNS Ojitipa, SLP. /ohoxih-ti-pan/, Ojitla*n, Oax. /ojoxih-tla:n/)
 Was net'etx ~ nit'itx 'striated, stacked' > Nawa netech 'close
 together'

[7] Contacts with Totonakan: (Tot = Totonako; Tep = Tepewa)

lexical borrowings:

Tot puuchuut 'silk-cotton tree' > Nawa po:cho:-tl
 Tot -tziin diminutive suffix > Nawa -tzi(:)n (can't be from
 pYN *-ci, which would and, does, give -ch in Nawa)
 Tot xuunuk 'jonote' (tree) > PNawa xo:no:-tl; NPueNawa xo:nok
 Tot xuulh 'jolote' (fish) > Nawa xo:lo:-tl
 Tot wahkat 'crate' > Nawa wahkal-li
 Tot chichi7 'dog' > Nawa chichi
 Tot waapa 'guapota, mojarra' (fish) > Nawa #wapo-tl
 Tep tiix 'brother-in-law' > Nawa te:x-tli 'man's...'
 Tot piipi7 'man's elder sister' > Nawa pih-tli (also has a
 proposed YN etymology, but this means 'younger sister')
 Tot saqat ~ seqet 'grass' > Nawa saka-tl (may also have a
 possible YN etymology); cf. pMije *sokot, pSoke *so7k
 Tot qaa7x 'gourd bowl' > Nawa kaxi-tl 'bowl'
 Tep lhpaw 'avocado species' > Nawa pa(:)wa(-tl)
 Tot xku7ta 'sour' > Nawa xoko-kE
 Tot chuu7ni7 'buzzard' > NPueNawa cho:neh
 the phoneme /tl/, which in Mexico/Meso-America is found only in
 Totonakan and Nawa

[8] Contact with Meso-American languages generally:
 loss of OV clause pattern
 (retention of GN noun phrase pattern in lexicalized phrases)
 development of relational nouns?
 affixation of subject and object pronominal markers?

regional forms of Nawa

[9] Contacts with more Wasteko: in Huasteca and Central Veracruz
 Was VOS word-order > WHNawa VOS

ca. 65 lexical borrowings:

Was akits 'pricklenut (Guazuma)' > Nawa akich
 Was ajiin 'cayman' > WHNawa ah'i:N
 Was apatx' 'palm tree' > HNawa a:pach-tli
 Was aapulee7 'capuli*n' > HNawa a:pole ~ a:pol-li

 Was ekwet 'guan' > WHNawa a:kwatah-tli ~ e:kwatah-tli
 Was eelte7 'tree sp.' > WHNawa ehelte, EHNawa e:lte

 Was ix bek'em 'plant sp.' > HNawa ixwake(:)N

 Was jalaam 'young tom turkey' > EHNawa ala:n
 Was juyuul 'jug' > HNawa ohyo:l-li

 Was kataam 'gar-fish' > HNawa kata:N

Was kukay Annona spp. > WHNawa kokax, EHNawa kokah
 Was kuxkum 'owl sp.' > HNawa koxkox

 Was k'ooloonii7 'bean sp.' > WHNawa ko:lo:ne

 Was kweteem 'alone' > EHNawa kwete:N 'coati sp.'

 Was kw'itx'a7 'to grind in a mortar' > HNawa tekwicha 'pestle'

 Was lik'lik' 'sparrowhawk' > HNawa liklik

 Was mabak ~ nabak 'four-nose snake' > WHNawa ma(:)wakh-tli
 Was maante7 Lucuma salicifolia? > HNawa ma:nte
 Was mokok 'tree sp.' > WHNawa mokok
 Was molik' 'joint, wrist' > WHNawa molek-tli, EHNawa mo:lik-tli
 'elbow'
 Was muuw 'indigo' > HNawa mo(:)wih-tli

 Was othow 'iguana' > EHNawa o(:)sowih-tli

 Was palatx 'tom turkey' > HNawa palach
 Was pejte7 'tree sp.' > HNawa pi:ste
 Was pemots ~ pemuts > WHNawa pemoch, EHNawa pemo:ch
 Was pik'uuy7 'picuy bird' > HNawa piko:x, EHNawa pixkowi:l(-iN)
 Was pitxi7 'hominy' > HNawa pichi
 Was potx'otx' > HNawa pochoch
 Was puthwal 'plant sp.' > HNawa poswal, EHNawa ~ poswa-tl
 Was puwaam Trema micrantha > HNawa powa:N, etc.
 Was puxtha7 'fish sp.' > HNawa poxta

 Was tantxu7 'kinkajou' > HNawa, PNawa ta:ncho;
 NPueNawa tanchaw 'fox'
 Was tukum > WHNawa tekumah-tli, EHNawa tokomah-tli ~ toko:n-tzi:N
 Was tok'ox 'fish sp.' > HNawa tokoxih-tli
 Was tuuwi7 'vine sp.' > HNawa towi

 Was t'ololo7 'small owl sp.' > HNawa tololoh-tli
 Was t'ut'utx 'ant sp.' > HNawa totoch-iN

 Was theben 'weasel' > WHNawa sewen, EHNawa kwa=siwi:n-tli
 Was thipon 'herb sp.' > HNawa seponih-tli
 Was thiiw 'tree sp.' > HNawa isi:p
 Was thokob 'zocohuite tree' > HNawa tzokowih-tli

 Was tsumak 'fish sp.' > HNawa chomakh-tli
 Was tsumiil 'palm heart' > WHNawa chomi:-tl ~ chomi:l ~ chomilo:-tl

 Was txatxa7 'pitahaya cactus' > HNawa chacha
 Was txakaj Bursera morelensis > HNawa chakah
 Was txe7txem 'woodpecker' > WHNawa kwa=che:cheN,
 EHNawa kwa=che:(N)che(:)N
 Was <i tzi> 'pulque de que sacan el mezcal, vino de mezcal' >
 WHNawa chi:N
 Was txi7iim 'maguey juice' > HNawa chii:mI-tl 'mother's milk'

Was txikinte7 'tree ear' > HNawa chiki:nte (The Was form is itself a loan from Cholan)

Was txitxiy Enterolobium cyclocarpus > HNawa chi(h)chih-tli

Was paktha7 txiyan [tx'o'jool 'herb sp.' > HNawa tala:nchiya(:)(h)

Was txook 'thunder god' > HNawa tzo:kwih-tli 'water/rain spirits'

Was txoote7 'chote tree' > HNawa cho:te

Was txokoy 'tan' > HNawa chokox-tik

Was txulek' 'uvula' > HNawa cholek-tli

Was tx'ikiy uxum 'herb sp.' > WHNawa choko:xoh ~ choko:xih

Was umuw 'jumo tree' > WHNawa ohmoh, EHNawa omo(:)N

Was uthu7 'monkey' > HNawa oso

Was utxun 'papaya' > HNawa o(:)chonih-tli ~ ochoneh-tli

Was walul Sapindus sp. > HNawa walo(:)l, EHNawa ~ walo:-tl

Was witxiim 'a small tree' > HNawa wichi:N, EHNawa ~ wichiN

Was xak'ub > EHNawa xako(:)N ~ xako

Was xixitx' 'a small tree' > WHNawa xixich

[10] Contacts with more Totonako: in Sierra de Puebla Nawa

[11] Contacts with more Mije-Sokean: (SOT = Stoeapan (Highland) Gulf Sokean)

in Gulf Nawa (Pajapan; Mecayapan)

SOT 7e:xi 'lobster' > e:xi 'lobster'

SOT chi:ku 'coati' > chi:go ~ chi:ko

SOT jokox 'warm' > jokox

SOT xo:ki > xo:ki 'sea snail'

SOT tzu7 7e:xi 'tarantula' > tzo:xi

SOT ta7upa 'fish' > to:poj

SOT juuny=chu7tz 'rubber-corpse monster: El Chaparro' > jo:ncho7
'gorila'

SOT ta:pu 'wart' > ta:po

SOT jejjene7 'to pant' > jejjepa

SOT tziktzikne7 'to chitter, squeak' > tzi7tzi7pa 'chirriar'

SOT xxx 'cocoplum' > epot ~ epo; cf Wasteko eputs, Xinka 7epet

The following contain the SOT inflexional incompleted verbal suffix -pa, and are therefore SOT loans:

SOT xxx > lejlepja 'to pant'

SOT xxx > jejjeyompa 'to itch'

SOT xxx > totpa 'to suck'

SOT xxx > totzpa ~ dotzpa 'to resound'

SOT xxx > xo:rpa 'to sip'

The following, found in Soke of Oaxaca, must formerly have existed in SOT:
Soke jakke ~ jekke 'very' > jake

[12] Contacts with Kora-Wichol: in Durango Nawa

Cora su*7ra*ve, Huichol sura*ve 'star' > DNawa xuravet

'a certain festival'

[13] Contacts with Central American languages:

WMayan muuy 'ni*spero' (fruit) > Pipil mu:yu=tzapu-t
Sumu, etc. kusma 'buzzard' > Pipil kusma

[14] The following are somehow connected:

proto-Sapoteko *pe+ xi:7tzu7 'coati'
Wasteko bexe7
Nawa pe:soh-tli

[15] General Nawa tiyankis(-tli) 'market' looks like a loan. It can't be analyzed morphologically.

xxxxxx

Pre-1500 Population Shifts

In many cases, closely related languages, or even dialects of the same language, are found in widely separated parts of MA.

The Nawa presence in MA is relatively recent, dating from about 500 CE and later. Before 500 Nawa occupied an area -- outside MA as here defined -- somewhere between Kora-Wichol-Kaskan-Tekwexe on the West and Wasteko on the East. Around 500 Nawa arrived in the Valley of Mexico, and soon after this an outlier, Pochuteko, established itself on the Pacific coast of Oaxaca. Before 800, Northern Nawa, coming in from Central Mexico at a time when no traceable local dialects had yet developed, was planted in the area shown on the contact-period map. This is the origin of the form of Nawa used by the Toltecs. By 800, Eastern Nawa and Pipil began to be colonized from the Northern Nawa area. By 1000, the Western Nawa area started being colonized from the Central Nawa area. By 1400 the distribution of Nawa shown on the map had been accomplished. In every region that Nawa expanded into, it came into contact with other languages that had already been there for some time, and in every case Nawa underwent at least some influence from the locally-established languages. While still outside MA, pre-Nawa borrowed a number of lexical items from Wasteko, and underwent some phonological influence from the (not closely) related Koran languages. It also borrowed some lexical items of Mije-Sokean origin, possibly a result of the presence of Olmec outposts in Central and Western Mexico in the period 1000-400 BCE. On arriving in the Valley of Mexico, Nawa encountered, among other languages, Totonako, from which it borrowed the "diminutive" suffix **-tzi:n** and the phoneme /tɬ/. Whether rapidly or gradually, the Totonakos were eventually expelled from Central Mexican highlands. All forms of Nawa show Wasteko and Totonako traits. Other languages that were overlaid by Nawa included Matlatzinkan, Chocho, Tlapaneko, Kwitlateko, Soteapaneko, Popoluka, Xinkan, Lenkan, and Koran. None of these other languages has influenced Nawa generally -- they were contacted by Nawa one at a time in the process of colonization stemming either from the Northern Nawa or the Central Nawa regions.

In the last 1500 years, several southward population displacements took place, as a result of [a] the Nawa incursions into Central Mexico, with attendant disruptions, ca 500; [b] Toltec origins and expansionism, ca 800-900; [c] Central Nawa expansionism out of Central Mexico, ca 1000-1400; [d] Totonako expansion into the Central Gulf coast, ca 1100-1200; [e] the Toltec decline, ca 1150-1200.

ca 500: Chinanteko moved from between Matlatzinka and Tlapaneko to Northern Oaxaca [cf. a]

ca 500-700: Chorotegan moved from between Otomi* and Chocho to Western Chiapas [cf. a]

ca 700: Mange moved to Honduras and Nicaragua [cf. a]

ca 800-900: Northern Nawa colonized the Central and Southern Gulf coast as Eastern Nawa [cf. b]

ca 900: Pipil left from the Southern coast and established colonies in Chiapas, Guatemala, and El Salvador [b]

ca 1100: Kabil moved from south of Wasteko to the Grijalva Valley of Chiapas [cf. d]

ca 1200: Sutiaba separated from Tlapaneko and moved to Nicaragua [cf. c,e]

Part II: The Prehistory of Nawa

This section was prepared for Don Bahr's proposed (but postponed) conference on Yuta-Nawan ethnolinguistics.

The immediate genetic connexions of Nawan within Yuta-Nawan.

Nawan is Southern, not Northern. It has these traits in common with Sonoran (= SYN without Nawan):

Three phonological traits:

- *[i] > [e] (but not in Tepiman)
- *p > [v] (but not in Taraumara-Warijiyo)
- *hC, *nC > C

Nawa shares at least 35 lexical items exclusively with Sonoran languages. This supports a Southern branch of Yuta-Nawan.

([i] is spelled <u> below; "eng" is spelled <ng>; keys for cognate sets set up by Wick Miller are cited in [] at the end of each entry)

*7asu 'to arrive' = Naw ahsi [ha-09]

#7ora 'to shell corn' = Naw o:lo:-tl 'corncob' (corncoobs are used to shell corn) [o-19,20]

#kara 'crow' = Naw ka:ka:lo:-tl [ka-19]

#koko 'painful' = Naw kokoyA 'to be sick'; kokohA 'to hurt him' [ko-07,08]

#komi 'downward' = Naw komol-li 'hole in earth' [ko-05]

#koYi 'peccary' = Naw koyame-tl [ko-20]

*koyo: 'concha, coyol' = Naw koyol-in [ko-21]

#kwi 'worm' = Naw okwil-in [kwi-11]

*kwi:kaH 'to sing/song' = Naw kwi:ka vi 'to sing'; kwi:kA-tl 'song' [kwi-03]

*mahi 'maguey' = Naw me-tl [ma-25]

*mangi 'estar puesto' = Naw manI [ma-09]

*ma(:)s^o/a 'deer' = Naw masa:-tl [ma-05]

*matsa 'thigh' = Naw metz-tli [ma-17]

*moro 'to smoke' = Naw mo]molo[tzA [mo-09]

*mu7i 'many' = Naw miyak [mu-21]

*maka 'far' = !Naw wehka [ma-02]

*na:po 'prickly pear' = Naw no:ch-tli [na-05] [contrast NYN *na:pu]
 *nasi 'ashes' = Naw nex-tli [na-03]
 *ni7o-ka/tsa 'to talk' = Naw no:tzA [na-04, ni-01]
 *sa7ivori 'fly' = Naw sa:yo:l-in [si-05]
 *saki 'to roast grain' = Naw iski-tl 'parched corn' [sa-02]
 *sawa 'leaf' = iswa-tl [sa-01]
 *sungu 'corn' = Naw sin-tli, sen-tli [su-05]
 *tangi 'to ask' = IhtlanI [ta-18]
 *taHpo 'to open' = Naw tlapowI [ta-40]
 *vatsⁱ/a 'first' = Naw achi, achtowi [pa-37]
 #vusa 'to wake up' = Naw ihsa [pu-03]
 *va-waH 'skin' = Naw e:wa-tl [pi-11]
 *tsoma 'to sew' = Naw IhtzomA 'to sew'; tzamA 'cubrir de paja'; [co-15]
 *tso:ma 'snot' = Naw mo-Eltzo:mihA 'to blow nose' [co-04]
 #tsonga 'to hit it, etc.' = Naw tzo]tzonA 'to play drum or stringed instrument' [co-01]
 *tso:ngi 'hair' = Naw tzon-tli 'head hair' [co-06]
 #tsongV 'stalk' = Naw kwa-tzon-te-tl [co-02]
 #wasu 'mother-in-law' = wes]was-tli 'woman's sister-in-law' [wa-15]
 *yo:ri 'to be alive, be born' = Naw yo:lI 'to be born'; yo:l- 'heart, seed' [yo-04]

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Nawan has been influenced phonetically by Koran

*wo > [ho] (> [o] in Nawan)
 *p > [v] > [h] (> [∅] in Nawan)
 *u > [i]
 [also above]

Nawan has been influenced phonetically by Pamean
 five-vowel system > four-vowel system /i e a o/
 [also above]

Nawan has been influenced lexically by Wasteko
 [see above]

Nawan has been influenced lexically and morphosyntactically by Mije-Sokean
 [see above, and below]

Nawan has been influenced lexically, phonetically,
 semantically/metaphorically, and morphosyntactically by Totonako.

Totonako-like metaphors that replaced morphologically simplex lexemes:
 [actually, none of these are found in Totonako as we/I know it]

Nawa form		Analysis	replaced YN/Son
'tongue'	nene-pil-li	[clitoris (< *tongue)-x]	*nangi
'tail'	kwitla-pil-li	[shit-x]	*kwasi
'eye'	i:x-te-yo:l-	[face-stone-seed]	*punci
'horn'	kwa:-kwawI-tl	[head-tree]	*7a:wa
'gut'	kwetlax-kol-li	[leather-x]	*si:
'knee'	tla:n=kwa:HI-tl	[leg-head]	*tango:
'red'	chi:]chi:l-tik	[chilli-like]	*suta
'to walk'	neh]nemI	[redup-live]	*muna
'liver'	el=t ^e /apach-tli	[thorax-x]	*nu:ma
'eyebrow'	i:x=kwa=mol-li	[face-head-x]	*su:pu
'head'	tzon=tekoma-tl	[hair-gourd]	*mo7o [Son]
'snot'	yaka=kwitla-tl	[nose-shit]	*tso:ma [Son]
'chest'	el=chikiwi-tl	[thorax-basket]	*tawi [Son]
'black'	tli:l-tik	[soot-like]	*tukV [Son]
'to bathe'	a:l-tihA	[water-ize]	*7uva [Son]
'gully'	a:=taw-tli	[water-x]	*haki [Son]
'to remember'	el-na:mikI	[thorax-meet]	

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64 Yuta-Nawan etyma found in both NYN and Sonoran but missing and replaced in Nawa [!! means discussed elsewhere]

--> means 'replaced by' NOT 'develops into'

YN #7anE 'ant' [a-09] --> Naw aska-tl, tzi:ka-tl [MS], tzi:tzi:-tl
 YN #7anga 'wing' [a-03] --> Naw <aaztli, atlapalli> /-ahwitz/
 YN *7ahpu 'father' [a-18] --> tah-tli, ta:ta
 !!YN *7a:wa 'horn' [a-05] --> Naw kwa:=kwawI-tl
 YN #7o 'rock, gravel' [[o-09] --> Naw <tetzikwewalli, xa:l=te-tl>
 YN *7o:nga 'salt' [wo-05] --> Naw ista-tl
 YN #7opa 'brave; enemy' [o-03] --> Naw <(yo:l)kokol-eh, tlawel-eh;
 te:-yao-w>
 YN #7osV 'to write' [o-11] --> Naw Ih]kwil-ohA
 YN #7u.. 'to bring' [u-01] --> wa:l-wi:ka
 YN *7uHpV 'now, already' [i-05] --> Naw ya
 YN *7utsa 'wound, sore' [i-02] --> Naw tla-witek-tli, tla-kokol-li
 YN *7u:t'sa 'to plant' [i-01] --> Naw to:kA
 YN *hu:na 'badger' (not found in Meso-America) [hu-10]
 YN *ka 'NEG' [ka-01] --> Naw ah-mo, a(:)x
 YN *ka 'father's mother' [ka-09] --> sih-tli
 YN *kawi 'mountain' [ka-08] --> tepe:-tl
 YN *ki: 'house' [ki-01] LOST
 YN *kⁱ/utsu: 'fish' [ku-20] --> Naw mich-in
 YN #ko7(-tsi) 'elder sister' [ko-13] weltiw-tli, -pi
 YN *kumu.. 'uncle' [ka-30] --> tlah-tli
 YN *kuhnga 'husband' [ku-02] --> Naw te:-na:mik-tli
 YN *ku:sV 'to bellow' [ku-01,26] --> Naw tekoyowa
 YN *kwa7 'mother's father' [kwa-09] --> Naw ko:l-li
 !!YN *kwasi 'tail' [kwa-02] --> kwitla=pil-li
 YN *kwi: 'smoke' [kwi-10] --> po:ch-tli
 YN *ma:na 'girl' [ma-007] --> Naw ich-poka-tl
 YN *mahtsa 'tick' [ma-01] --> Naw [various] /masa:=atemi-tl/
 YN *mu 'owl' [mu-10] --> Naw chikwah-tli, chi:ch-tli
 YN *mu7a 'to kill' [mi-03] --> Naw mik-tihA
 YN *mana 'to walk' [mi-06] --> nehnemI
 YN *na7i 'fire/to burn' [na-07,09] --> tle-tl; tlati
 !!YN *na:ma 'liver' [ni-02] --> el=t^e/apach-tli
 YN #nupa 'snow' [ni-11] --> sepayawi-tl
 YN #na7sa 'mother's sister' [ni-07] --> Naw a:wi-tl
 !!YN *payE 'to call' [pa-24] --> no:tzA (< Son)
 YN *pi 'down, feathers, fuzz' [pi-04] --> Naw ohmi-tl
 YN *pi 'breasts' [pi-09] --> Naw chi:chi-wal-li
 YN *pi 'younger sister' [pi-27] --> Naw <te:-iko>
 YN *pika ~ *pisV 'rotten' [pi-07] --> Naw %pala
 YN *pikah 'axe, knife' [pi-13] --> Naw te=pos-tli (MS)
 YN *poh 'feathers, fur, hair' [po-02] --> Naw ihwi-tl
 YN #po/voni 'younger brother' [po-08] --> te:-ikkaw
 YN #pu.. 'to leave' [pu-07] --> Naw ka:wA
 YN *punku 'pet' [pu-13] --> Naw LOST
 YN #sama 'wet, dewy' [sa-18] --> Naw palti, chakwanI
 !!YN *si: 'guts' [si-07] --> Naw kwetlax-kol-li
 YN *su:na 'heart, mind' [su-13] --> Naw yo:l-yoh-tli,
 tla-El-na:miki:-lis-tli
 !!YN *su:pa 'eyebrow' [si] --> Naw i:x-kwa:-mol-li

!!YN #suta 'red' [si-03] --> Naw chi:]chi:l-tik
 YN *tomo 'winter' [to-05,13] --> Naw ?
 YN *tongo: 'knee' [to-07] --> Naw tlan-kwa:HI-tl
 YN *tu(:)k^a/i 'night; to go out (fire)' [tu-02,12] --> Naw yowa-l-li
 YN *tuku(wa) 'body, flesh, meat' [tu-04] --> Naw naka-tl
 YN *tsuHpa 'to go out (fire)' [cu-09] --> Naw se:wI
 YN *wa7E 'to roast' [wa-02] --> Naw Ixka
 YN *wa:n^a/i 'basket' [wa-06] --> Naw chikiwi-tl
 YN *wi 'fat' [n] [wi-01] --> Naw chiya:-wa-k, toma:-wa-k
 YN wi:ki 'bird' [wi-07] --> Naw to:to:-tl
 YN *wo7o(-tsi) 'grasshopper' [wo-07] --> Naw cha:po:l-in
 YN *wuna 'to stand' [wi-06] --> Naw ketzA, ehka-tikah
 YN *ya.. 'to say, he said' [ya-07] --> Naw IhtohA, ilwihA
 YN *yatsa 'to place' [ya-02] --> Naw tla:lihA
 YN *yantsV 'to sit' [ya-01] --> ewa-tikah 'esta* sentado'
 YN *yukV 'to rain' [yu-02/03] --> Naw kiyawi-tl

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45 Sonoran etyma which possibly were found in pSYN but are missing in Nawa

Son *7acE 'to laugh' [a-01] --> Naw wetzka
 !!Son *7uva 'to bathe self' [u-02] --> Naw a:ltihA
 Son *7ura 'blood' [i-04] --> Naw es-tli
 !!Son *haki 'arroyo' [ha-02] --> Naw a:=taw-tli
 Son *hakwi 'to stand' [ha-01] --> Naw ihka-to-kE
 Son *kaka 'sweet' [ka-02] --> Naw tzope:lik
 Son *ko:ro 'crane' [ko-18] --> Naw asta-tl
 Son *ku: 'mezcal, palmilla' [ku-25]
 Son *ku:mⁱ/u 'to chew' [ku-12] --> Naw kwa]kwahA
 Son #kwiya 'earth' [kwi-02] --> Naw tla:l-li
 Son *ma 'to cook in ground' [ma-10,24] --> Naw tla:l=ixka
 Son *matsi 'light' [ma-03] --> Naw tla-ne:x-tli
 Son *ma:tsiri 'scorpion' [ma-04] --> Naw ko:lo:-tl
 Son *mawiya 'lynx' [ma-26] --> Naw mis(-ton)-tli
 !!Son *mo7o 'head' [mo-01] --> Naw tzon=tekoma-tl
 Son *mu:ngi 'beans' [mu-03] --> Naw e-tl
 Son *mutsi 'vagina' [mu-04] --> Naw nene-tl
 Son #naya 'to make a fire' [na-08] --> Naw tlE=tla:lihA, tlE=pi:tza
 Son *po7V 'lying down' [po-03] --> Naw te:kA, ketzA
 Son *ponga 'to uproot' [po-05] --> tzinewA, wiwitla
 Son #sapa 'meat' [sa-03] --> naka-tl
 Son #sawa 'yellow' [sa-05] --> Naw kos-tikE
 Son *sika 'to cut, clip' [si-01] --> Naw ?
 Son *si:mi 'to go' [si-03] --> LOST
 Son #suka 'to be hot' [su-11] --> Naw to:na (YN)
 Son #suku 'to scratch' [su-02] --> Naw tataka, momotzohA
 Son *takV 'to touch, push' [ta-08] --> ma:=to:kA
 Son *taku 'palm' [ta-11] --> Naw sotol-in, so:ya:-tl
 Son *tangV 'to thunder' [ta-08] --> Naw tla-tlatzi:-ni-lis-tli
 !!Son *tawi 'chest' [ta-29] --> el-pan-tli, el-chikiwi-tl
 Son *toha 'live oak' [to-01] --> Naw ?
 !!Son *tukV 'black' [tu-03] --> Naw tli:l-tik, tli:liwik
 Son *tuku 'squirrel, rat' [ti-47] --> chachalo:-tl
 Son *tavE 'long' [ti-011] --> Naw we:yak
 Son *tsi:ni 'cotton' [ci-02] --> Naw ichka-tl
 Son *tsok^o/a 'sour' [co-03] --> xoko-kE (cf. Totonako xku7ta)
 !!Son *tso:ma 'snot' [co-04] --> Naw yaka-kwitlA-tl
 Son *tsu: 'dog' [cu-02] --> Naw chichi (cf. Totonako chichi7)
 Son *tsu:na "higo" [cu-12]
 Son *vatsa 'meter; encerrar' [pa-04] --> (kal=)akihA; tzakwA
 Son *virV 'to twist' [pi-03] --> Naw %mali, chiko-
 Son *vuha 'to remove' [pu-01] --> Naw tlasal(t)ihA, kwanihA, anA,
 tlakwilihA
 Son *wa7a 'over there' [wa-03] --> Naw ompa
 Son *yanga 'to smoke' [yi-03] --> Naw chichi:nA
 Son *yu:m^a/u 'to be able' [yu-04] --> Naw well

 Son #7okV 'woman' [o-06]: prob a Son innovation: Naw has siwa:-tl
 < pYN *sunwa
 Son *woki 'foot' [wo-03] --> Naw ikxi-tl < pYN #kasi. This is just a
 Sonoran innovation

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Nawa as a source of Mije-Sokean words in Sonoran languages:

petlA-tl 'mat' [hi-02], [pa-08]
kak-tli 'sandals' [ka-04]
xami-tl 'adobe' [sa-17]

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Tracing the lexical replacements made by Nawa

DEFINITELY, anything common to any NYN language and any Sonoran language but missing from Nawa has been lost by Nawa. Track down all cases and see what is currently used to express the concept.

POSSIBLY, things universal in Sonoran but missing from Nawa have been lost in Nawa. Identify all such possible cases.

The Meso-Americanization of Nawa grammar.

ALL Nawa morphology is left-branching, bespeaking an earlier OV syntax. Currently, Nawa word order is Mayoid, having verb first (usually VOS), pre-nominal (but occasionally post-nominal) modifying adjective, Possessor Noun usually postposed (but occasionally preposed). The current syntactic patterns must have been established after Nawa's pre-existing Verb Complex and Noun Complex were converted from strings of clitics to strings of affixes under the influence of some particular MA language(s).

Nawa verb morphology.

Comparison with other YN languages, as well as the phonological traits of some present-day suffixes, shows that most of the prefixes and suffixes of the Nawa verb word were originally clitics. I postulate the following formula for the Verb Complex in pre-Nawa, for the moment omitting incorporated auxiliaries:

Subj # Obj/Refl # dir # VERB # mov # TAM # pl

Subj = subject, noun or pronoun

*ni 1s
*ti 2s
*∅ 3
*ti 1p
*a mE 2p

Obj = Object, noun or pronoun

*ni e:tzi 1s
*mo etzV ?? 2s (cf. mo 2s possessive)
*kI 3s
*ti e:tzi 1p
*a mE e:tzi 2p
*kI mE 3p

Refl = reflexive *mo or *o

*te: generic human object
*tla generic inanimate object

dir = direction:

hither (this way) *wa:lV
hence (away/that way) *oNV

mov = movement:

andative (going) *ti:
venitive (coming) *ki (from pYN 'come')

TAM = tense-aspect-mood

imperfect *ya:
preterit *#kE
past with movement *o:
pluperfect *#ka:
future *sV kE
conditional, past-of-future *sV kE ya:
future with movement *wI
present *A
customary *ni:
volitive plural *ka: mE
volitive singular {:}??

pl = plural of subject *tI

Of the markers listed above, the cognate or functionally equivalent morphemes are separate words or clitics in virtually all other YN languages. Two of the Nawa TAM markers cause the dropping of historically short non-initial vowels, just as word-final position does. The venitive marker is a lexical verb in origin, and the andative probably is, too. The object pronominal markers are in origin apparently oblique case forms of pronoun words. The second person plural markers contain a morpheme that pluralizes nouns in other YN languages. The fact that the elements *ya: 'imperfect' < *'past' and *kE 'preterit' < *'perfect' occur in two different positions shows that both of these are probably clitics in origin. The fact that *tI 'plural subject' occurs after TAM markers which are clitics in origin shows that *tI is an original clitic as well.

There are two other elements of the verb word to discuss: noun incorporation and auxiliary incorporation. Nouns may be incorporated before a verb stem to function as generic objects, locations, or other adverbial modifiers. This is compatible with their expected position as syntactically unincorporated complements to the verb given an original SOV constituent order. It should be noted, however, that while {wa:l-} 'hither' and {on-} 'hence' follow object pronominal prefixes, they precede incorporated nouns. This may have something to do with the order of light and heavy complements, pronouns being light and nouns being heavy. It should also be noted that independent nouns when not possessed usually end with an absolutive suffix {-tI} or {-in}, but that incorporated nouns (except in **one or two cases in the whole Nawa lexicon**) do not contain this suffix. The absolutive suffix is also missing from nouns when they are possessed. In the place where an incorporated noun may occur there may also occur {tla-} 'generic non-human noun' and {te:-} 'generic human noun'. I take {tla-} to be a phonologically-eroded form of pYN *hinta 'what, (some)thing'. I have no account for {te:-}.

The incorporated auxiliaries of Nawa are, with two exceptions, verb stems that may also occur alone as independent predicates. When they are incorporated they have the same subject as the 'main' verb: they are always preceded by a morpheme of the shape {@I}, which I call 'linker' (Others call it 'ligature'). The linker could be either a nominalizer of the 'main' verb or a 'conjunction' that subordinates the main verb. Hopi has analogous constructions that masquerade as morphology but are arguably

syntax. In Hopi what corresponds to Nawa {@tI} is plausibly a nominalizer: but the fact that Nawa {@tI} induces word-final vowel morphophonemics in Nawa suggests that it is in origin a separate word, possibly a subordinator.

The revised formula for the pre-Nawa verb complex is given below: only Subj, VERB, and TAM were present in every clause. The fact that when AUX is incorporated only one subject marker is found shows that the scope of person marking in pre-Nawa was not the verb word but was the verb phrase.

Subj # Obj/Refl # dir # NOUN/tla # VERB # link # AUX # mov # TAM # pl

The morphologization of Nawa's verb complex syntax into a single word was plausibly due to contact with some Meso-American language(s) with a structure like what we see in present-day Nawa. In the sense that all of the functionally parallel grammatical categories in Totonako and the Mije-Sokean languages are affixes, one or both of them could have been the stimulus for the developments in Nawa. The following, though having fairly complex verb morphologies, are still much simpler than Nawa, Mije-Sokean, or Totonako: Matlatzinkan, Chorotegan, and Wasteko have no noun incorporation, and Wasteko, while having some incorporated modifiers in the verb complex, treats subject and object pronoun agreement markers as proclitics. In Chorotegan person markers are postposed, not preposed, while TAM markers are preposed, not postposed, in both Chorotegan and Matlatzinkan. Totonako does not have productive noun incorporation, but does have about forty incorporated preposunds which are nouns in origin, and some of which do in fact occur as lexical nouns in their own right (cf. McQuown 1940-1950, sec. 83-84 where they are called 'classifying prefixes').

Thus, of all Meso-American languages, only Mije-Sokean and Totonako could have supplied a clear and full model for the morphologization of the verb word in Nawa.

Nawa noun inflexion.

Nawa nouns have two states, absolute and possessed.

Possessed nouns take possessive prefixes, and some take a possessed state suffix {-wA} when singular: all plural possessed nouns take the suffix string {-wA -:n}.

The possessive prefixes are:

no-	1s	cf. ni-	with verbs
mo-	2s	cf. mitz-	2s object
i:-	3s		
to-	1p	cf. ti-	with verbs
amo-	2p		
im-	3p	(< i:-	mE-

The /o/ that many possessive prefixes end in is perhaps in origin a separate morpheme. In several YN languages (e.g. Numic, Takic, Hopi) possessive markers are prefixes, even when verb pronoun markers are not. Diachronic phonological developments in Nawa suggest that in pre-Nawa

stress was automatically word-initial, and that furthermore possessive markers were prefixes, inasmuch as they were probably stressed.

Absolutive nouns in Nawa usually end in {-tII} or {-in} when singular, and in {-met}, {-tin}, or {-h} when plural. {-met} can be diachronically resolved as *mE *tI, {-tin} can be diachronically resolved as *tI *mE, and {-h} can be diachronically resolved as *tI. This, as well as the fact that *tI as a plural subject marker on verbs has been shown to be a clitic in origin, shows that there were two plural markers in pre-Nawa, *mE and *tI, and that both of them were enclitics. The suffix string {-wA -:n} can be resolved as *wA *V *mE, and the absolutive singular suffix {-in}, that usually occurs on the names of animals, has been plausibly suggested to come from *i *mE (where *i is of unknown value and *mE is a generic plural in origin/usage). Nawa {-tII} comes from pre-Nawa *-tA, pYN *-ta; it is a suffix wherever it occurs: its value in pYN may have been to mark oblique case (genitive and/or accusative), but this is disputed, and by no means resolved. Nawa {-wA} comes from pYN *-wa, widely-attested and everywhere a suffix.

When Nawa entered Meso-America, the possessive person markers were probably prefixes, and the absolutive marker *-tA and the possessed state marker *-wA were suffixes, but the plural markers *mE and *tI were clitics. Which languages could have encouraged converting *mE and *tI to suffixes?

In Wasteko, Matlatzinka, and Chorotegan pluralization of nouns is optional and marked by clitics: these are not plausibly a relevant influence on Nawa.

In Totonako and Mije-Sokean languages pluralization of nouns is morphological, marked by suffixes. One of these languages could have served as the model for Nawa.

Mesomericizing the Syntax of Nawa. After morphologizing the verb complex and plural markers, Nawa was influenced in its word order by Meso-American languages:

S O V order was changed to V-initial, usually V O S

In possessive constructions, the pre-Nawa order was
Possessor Noun - Possessed Noun (G N)

Through Meso-Americanization, possessed nouns were prefixed with an agreement marker to agree even with a full NP. The Possessing Noun Phrase (G) in most varieties of present-day Nawa follows the possessed noun, but not so in Huasteca Nawa: and in lexicalized possessive phrases the order is GN. This is true also in Classical (Central) Nawa.

In Huasteca Nawa and North Puebla Nawa (and perhaps other varieties as well) the absolutive intransitive ("antipassive") form of a lexically transitive verb (formed with tla- or te-) can take a direct object NP introduced by i:-ka 'by means of (it)'. This is analogous to the use in Wasteko of Erg-k'aal before a demoted Patient NP in an antipassivized clause.

ex: <ti-tla-yi-hke i-ka in pulke> (Brockway)
/ti-tla-i-h i:-ka in po:lkeh/
'we drink pulque' NPueNawa

This construction needs to be checked in

- a: other types of Nawa
- b: other YN languages
- c: other MA languages

RELATIONAL NOUNS in YN perspective: when did they come in?

Like other Meso-American languages, Nawa uses relational nouns to encode locative and oblique case relationships. The system of relational nouns found in Nawa is structurally very close to what is found in Mije-Sokean languages.

Nawa has one locative case suffix, {-kO} 'at', that occurs only with nouns. It has two locative case suffixes that occur with [both nouns and] pronoun markers and furthermore are used to form complex locative relational nouns on the basis of lexical nouns: {Poss-pan} 'on', and {Poss-tlan} 'under'. It has four locative [case suffixes or] relational nouns that are never combined with other nouns to form complex relational nouns, nor do they occur with {-kO}, {-pan}, or {-tlan}: Poss-/N=tech 'by, beside, by the corner of, at the side of', Poss-nechka 'near', Poss-/N=i:kan 'behind; outside', and Poss-/N=tza:la:n 'between' (< -tza:l-tla:n?). Nawa has eleven relational nouns which are combined with one of these locative suffixes and preceded by a noun stem to form a NOUN=NOUN-loc construction, or preceded by a possessive pronominal marker to form a PN-NOUN-loc construction.

Locative relational nouns

- Poss-na:wa-k 'near, with' (lit. "at nearness of")
- Poss-/N=te:n-oh 'near; at the edge of' (lit. "x mouth of")
- Poss-/N=te:m-pan 'near' (lit. "on mouth of")
- Poss-/N=te:n-ko 'at the edge of' (lit. "at mouth of")
- Poss/N=tlahko-pan 'in between' (lit. "on half of")
- Poss-kpa-k, N=ti-kpa-k 'above' (lit. "at aboveness of") [MS loan]
- Poss-/N=echka-pan 'down, low' (lit. "on lower part of")
- Poss-/N=kwitla-pan 'on; on the back of' (lit. "on shit of")
- Poss-/N=ihti-k 'in, inside of' (lit. "at belly of")
- Poss-/N=i:x-ko 'in one's face/eye; above, on top of'
(lit. "at face of")
- Poss-/N=i:x-pan 'in front of, outside of' (lit. "on face of")
- Poss-i:x=te:m-pan 'near; in front of, before'
(lit. "on mouth of face of")
- Poss-/N=tzi:n-tlan 'under' (lit. "under arse of")
- Poss-/N=ke:s-tlan 'beside; near' (lit. "under side of")
- Poss-/N=tzo:n-tlan 'over the head of' (lit. "under top of")
- Poss-/N=tzo:m-pa-k (< *-kpa-k?) 'above, over'
(lit. "at aboveness of top of")

The following are extended versions of **-pan** and **-tlan**, which have their own uses: they are not variants of **-pan** and **-tlan**.

Poss-/N=pan-i 'on, above'
N=tlan-i 'below'

Case-marking relational nouns

Poss-ka (instrument) 'with'
Poss-wa:n (accompaniment) 'with'
Poss-pampa (cause) 'on account of'
Poss-a:xka (property) 'mi]ne, you]rs, hi]s, he]rs, ou]rs, you]rs, thei]rs'

Now consider the structure of locative expressions in Sokean languages:

The locational case markers are of four types and involve the morphemes listed below. The following combinations are attested:

1. *-ma7 [1 possibility]
2. *7aw + *-ma7 or *-ji [2 possibilities]
3. CORE + *-ma7 or *-ji [10 possibilities]
4. *7aw + CORE + *-ma7 or *-ji [10 possibilities]

Most of the possible combinations occur in one or another of the languages, but only a few occur in any one language. Many of these complex items also function as independent adverbials. It seems likely that the original status of all the locational markers was that of independent adverbial[s] based on noun roots, but that some of the adverbials have decreased their distributions, being now only postposed to nouns, and that some noun roots have become obsolete except in these adverbials.

locative preposed element

***7aw=**. This is an incorporated form of the pMS word for 'mouth', but no clear meaning can be discerned when it serves as part of a locative adverbial/adposition.

***=7aw+mu7** 'near, at' has reflexes in COP and Colonial Mije.

***=7aw=kuk(-ji)** 'in the middle of' has reflexes in SOT and Oaxaca Mije.

locative CORE

***=joj** 'inner part'. (Wichmann 1991: AF#061 pZ *-hoh-ma 'in')

COP Soke -7oj-mo7 (#617) 'locative'

MAR Soke -jo7 'en'

SOT -jo:-m (#622) 'en'; -ah+jo:-m 'entre'

***=joj+mu7** 'inside of' has reflexes in CZ, SP, and OM.

***=kuk** 'middle part'. (Wichmann 1991: AF#044 pMS *-kuk 'in the middle of')

COP -kuk- (#628) 'in the middle of';
-kukoyj < -kuk-joj-ji (#627) 'in the middle of';
-kuk-mu7 (#626) 'in the middle of'
-kujki < -kuk-ji (#625) 'in the middle of'
SOT -anh+ku7k (#627) 'en medio de'

***=kuk-mu7** 'in the middle of' has reflexes in COP and SOT.

***=kus** 'upper part'. (Wichmann 1991: AF#042 pMS *-kus-i 'on, at'; also AF#043 pMS *-kus-mu 'position with respect to the ground')

COP -kusu (#621) 'on'; -kus-mu7 (#622) 'above'
OLU -kux-mu 'en el suelo'
*LM -kux 'at, on, by the top of' [SW]

***=kus-mu7** 'above/over' has reflexes in COP and Oaxaca Mije.

***=yuk** 'upper part'.

***=yuk-mu7** 'above/over' has reflexes in SOT and SAY.

***=ku7** 'lower part'. (Wichmann 1991: AF#090 pZ *-ku'-mu 'under')

COP -ku7-mu7 (#624) 'under'
SOT -ku7-um (#624) 'a'

***=ku7-mu7** 'under/below' has reflexes in COP, SOT, and Oaxaca Mije.

locative suffix position +1

***-mu7** 'locative₁'. (Wichmann 1991: AF#045 pMS *-mu)

COP -mu7 'place-name marker or locative'
SOT -m6 'instrumental, locative'
SAY -m ~ -Vm 'location'
OLU -mu 'position'

***-ji** 'locative₂'. (Wichmann AF#046 pMS *-i)

COP -i ~ -y (#619) 'locative'
MAR -i ~ -ji 'lugar'
*LM -y 'locational: in, to'

*-mu7 and *-ji both mean simply 'location' and have no obvious distinction in meaning.

locative suffix position +2

***-k** 'ablative'. Meaning: 'from' -- can follow stems with simplex *-ma7 only; this includes place names. It can safely be assigned only to demonstratives occurring with *-ma7, but quite possibly it had a wider range in the protolanguage.

A careful reading will show that the Nawa system parallels closely that of the Mije-Sokean languages.

The relational nouns of Totonako are free, not postposed, and occur only with Possessive prefixes; they function like prepositions in that they occur in front of the NP they relate to the rest of the sentence (McQuown 1940-1950, sec. 21). In this Totonako is like Mayan and most other Meso-American languages, and unlike Mije-Sokean or Nawa.

Overview of Pronoun markers in Nawa and where they came from.

Subject	Object	Reflexive	Possessor	
ni	ne:ch	no CN	no	*nV
ti	mitz	mo	mo	*mV
0	kI@	mo	i:	
ti	te:ch	to CN	to	*tV
am	ame:ch	mo	amo	*a mE
0	(k)im?	mo	i:m	X *mE
	*-e:tzI	*(m)o	*o	

The Languages that Helped Meso-Americanize Nawa.

It seems clear that BOTH Totonako and Mije-Sokean languages were crucial in the Meso-Americanization of Nawa. In fact, as far as structural patterns are concerned, a Mije-Sokean language alone could have done it. Only Mije-Sokean languages have ALL the structural traits that Nawa adopted. [It is also clear that the morphology of both Mije-Sokean and Yuta-Nawan languages presuppose an earlier OV (left-branching) syntax. Some might suspect that some general tendencies ("drift") have been at work here, and wish to discount M-S influence: I would demur]

In any case, it is unescapable that a Mije-Sokean language constituted a noticeable presence somewhere north of Central Mexico, even if it was only an outpost from the Southern Gulf coast. Just where this might have been, and when, is something that needs to be narrowed down by eliminating the more unlikely possibilities. I am not yet able to do a good job at this, but I will make some preliminary comments.

The Olmec period, ca. 1200-400 BCE seems too early.

The time frame of the Epi-Olmec era was roughly 400 BCE - 600 CE.

A good time would be 100 BCE-400 CE.

Where would the contact between Mije-Sokean and Nawa have taken place?

Michoaca*n?

Morelos?

Valley of Mexico?

Chalcatzingo, Morelos, flourishing ca. 1200-900 BCE, seems to provide a likely time and place for the establishment of an Olmecoid "Northern" Mije-Sokean population in Central Mexico. This would have become separated from the main Olmec body and formed a separate "Northern" branch of Mije-Sokean when Mijejan and Sokean split from each other around 1000 BCE. The Northern Olmecoid Mije-Sokean culture engendered/inspired the Tlatilco and Cuicuilco phases of the Valley of Mexico. Whether Mije-Sokeans spread into the Valley of Mexico or remained at its periphery remains unclear. Chalcatzingo may have persisted into the classic.

The major sites in Central Mexico from the middle preclassic through the epiclassic have been Chalcatzingo, Teotihuaca*n, Xochicalco, Cacaxtla, and Cholula. Candidates for the builders or rulers of these sites are Mije-Sokeans, Totonakans, Chorotegans, Matlatzinkans, Nawas (after 500 CE), and Cholans (after 700 CE). Groups who are NOT candidates are Otomi*-Masawas and Chinantekos.

The story about Nawa needs to be balanced against another story: the barbarization of Pamean. Pamean is an extension of OtoPamean from MA proper to the northern fringes. In this area, due to climate change, agriculture became impossible sometime around 800-1000 CE, and the Pames reverted to foraging. They must have come into contact with foraging groups who had always lived outside MA, Yuta-Nawans and/or Hokans. These languages have OV (left-branching) syntax, which Pamean adopted. The barbarization of Pamean may postdate the entry of Nawa into MA, and certainly postdates the disappearance of any Mije-Sokean language in northern Meso-America that influenced Nawa.

Further, OtoPamean as a whole has Mayan (= Wasteko) influence: lexical items in pOP (before 1000 BCE) and syntactic influence on Otomi*.

Is it possible that there was a Mije-Sokean colony in the Valley of Mexico in CE 500? If Totonakos were at Teo:tiwahka:n, this might explain some of the very striking lexical and grammatical resemblances between Totonako and Mije-Sokean.

Additional evidence for some of the languages of major importance in precolumbian Meso-America come from what I call "bumpkin anxiety". This first became clear to me when I noted the distribution of phonological changes in Highland Mayan languages that were the same as some that occurred in Cholan. In Greater Q'anjob'alán, *nh shifted to /n/ in Q'anjobal, Akateko, and Tojolab'al, but not in Mocho*, Popti' or Chuj; *r shifted to /y/ in all but Mocho*; *ty merged with /t/ after some original /t/s had shifted to /ch/; *q shifted to /k/ in Tojolabal and Chuj, and word initially in Akateko, but remained /q/ otherwise in Greater Q'anjobalan. This made it clear that some Highland Mayan languages underwent change by imitating the accents of Cholan speakers. These changes did not occur in the Highland languages at the same time as they did in pre-Greater Tzeltalan, but much later, through the influence of "bumpkin anxiety".

Later, I saw that most of the Oto-Mangean languages that were associated with major centers of innovation and power had changed certain phonological traits inherited from their ancestor:

[kw] was changed to [p]: Sapotekan, Chorotegan, Oto-Pamean
vowel nasality was lost: Sapotekan, Chorotegan, Matlatzinkan
stress on the penult syllable of a word replaced major accentual
prominence on the final syllable: Sapoteko (but not Chatino),
Misteko-Kwikateko

These traits seem to be due to imitating the accents of Mayans, Totonakans, or Mije-Sokeans. In Sapotekan, these traits co-occur with some lexical borrowings from Mije-Sokean, which nails down the source of the influence, since only Mije-Sokean has consistent non-final stress. In Matlatzinkan and Chorotegan, the borrowed traits (which do not include accent shift) seem to show that a language of one of these three families was a major influence in Central Mexico -- and I have shown above how the influence of Mije-Sokean was a paramount (though not unique) influence in the Meso-Americanization of Nawa.

Schematic layout of language distribution in C Mexico, 100-500 CE



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Notes on spelling and usage.

Especially in spelling Spanish, acute accents are replaced with <*>

I use Yuta-Nawan instead of "Uto-Aztecan"

I use Mije-Sokean instead of "Mixe-Zoque(an)"

I use Oto-Mangean instead of "Oto-Mangue(an)"

I use Chorotegan instead of "Chiapanec-Mangue" or "Manguean"

I use Masatekan instead of "Popolocan"

Words in Meso-American Indian languages are spelled with the PDLMA orthography, a variant of the Mayan (aka PLFM) orthography now official in Guatemala.

In Wasteko <tx> represents proto-Wastekan [ch], and <ts> represents a proto-Wastekan palatalized [ty] or retroflex [tr] voiceless apical stop.

For proto-Yuta-Nawan, a language not spoken originally in Meso-America, <ts> rather than <tz> is used to spell the sibilant affricate.

In underlying representations for Nawa, capitalized vowels are subject to deletion under certain conditions, primarily word-finally, and especially before enclitics which later became reanalyzed as suffixes.

YN = Yuta-Nawan

SYN = Southern Yuta-Nawan

NYN = Northern Yuta-Nawan

MS = Mije-Sokean

Mi = Mijejean

So = Sokean

p = proto-

complete reconstructions are preceded by *; reconstructions where certain suprasegmental features, like vowel length, cannot be specified are preceded by #.