

# ART FOR ARCHAEOLOGY'S SAKE

## Material Culture and Style across the Disciplines

Proceedings of the 33<sup>rd</sup> Annual Chacmool Conference

*Edited by*

Andrea Waters-Rist, Christine Cluney,  
Calla McNamee and Larry Steinbrenner



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# THE DYNAMICS OF LANGUAGE IN THE WESTERN LOWLAND MAYA REGION

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The general advances in epigraphy and in the knowledge of the grammar of the Classic-period texts have uncovered a rich and complex language situation in the Maya lowlands<sup>1</sup>. At least four languages are fully or partly represented in Classic-period texts. We shall describe the language situation in the Maya lowlands in the Classic period, giving special focus to the western region. The situation, particularly in the western and northern margins is characterized as one of diglossia. In order to give an impression of the complexities involved in diglossia, we devote a special section to a case study of positionals at Palenque.

## The Distribution of Lowland Maya Languages in the Classic Period

The title of this section echoes an earlier work by the authors of this paper (Lacadena and Wichmann, in press). We shall briefly summarize this earlier work, including more evidence (most of it presented orally in Wichmann and Lacadena 1999) for the distribution of Ch'olan and Yucatecan. In addition we shall consider a possible Tzeltalan presence in some of the inscription as we narrow in on the western area.

### Yucatecan

In previous research (Lacadena and Wichmann, in press, section 4) we identified a series of features that identify certain texts or parts of texts as Yucatecan. The map of the distribution of lowland languages (Figure 1) shows the location of these traits, as well as two possible new ones that we have identified in the meantime. One is **T'AB'-ya** for the mediopassive of the verb 'to ascend', which in Ch'olan texts would be spelled **T'AB'-yi** or

**t'a?-b'a-yi**<sup>1</sup> (Figure 2). The second new trait, which is identified by Lacadena (2000), is the *-kun* causative found in the text on Yula, Lintel 1 (Figure 3). It enters into the verbal form 'upaalkuna[j?]' 'he renewed it'. The form *palkuntah* is listed with the meaning 'rejuvenecer' and 'remozar, volver joven a alguno' in sources cited in Barrera Vásquez (1995:628) and would in the context of an offering mean 'to renew'. The *-kun/-kin* causative is a distinctly Yucatecan affix which derives transitives from positionals and inchoatives and is the equivalent of the Ch'olan *-b'a/-b'u* transitivizer of positionals.

### Western versus Eastern Ch'olan

Among the traits we have used to discern dialect differences in the vernaculars underlying the Classic inscriptions, some are bilateral and some unilateral (see Figures 4-6). An example of a bilateral feature is the term for 'rulership'. Here there are two choices, each of which carries the implication of a choice between dialect variants. Unilateral traits also serve to identify a regional vernacular, but the presence of the alternative term does not serve to identify the other regional vernacular. An example of such a unilateral trait is spellings of the type **chu-ku-ja**. We assume that the use of this type of spelling uniquely identifies the vernacular as Western Ch'olan. It is not the case, however, that the corresponding alternative term—spellings of the type **chu-ka-ja**—uniquely identifies the vernacular as Eastern Ch'olan, since spellings like **chu-ka-ja** are found in the whole area. Unilateral traits always represent innovations that occur during the Classic period but fail to completely replace the old forms.

Figures 4 through 6 list traits already presented earlier work, in addition to **-wa-ni** / **-la-ja** identified by Hruby and Child (forthcoming), which we shall return to below. In addition, Figure 6 introduces two new traits, which deserve brief presentations.

#### *he-na / he-wa*

As a substitute for the *k'in* glyph in distance numbers one often finds the spellings **-he-wa** and **-he-na**. Sometimes a sign, possibly a logogram, having the shape of an animal head with two crossed bones in or around the eye region replaces **he**. The spelling **-he-wa** (and its equivalent with the animal head) is found throughout the area, whereas **-he-na** (and its equivalent) has a much more restricted distribution, being found mostly in the east (see Table 1). It is unlikely that there is any difference in meaning between the two expressions; instead, the variation seems purely dialectally conditioned. It is not easy to analyze the morpheme sequences that are indicated by these spellings. The most straightforward transliterations for them are *-he'w* and *-he'n*, and these endings likely contain syncopated forms of *-Vh-e'w* and *-Vh-e'n*, considering the typical vowel-consonant structure of Classic Ch'olan suffixes. We think that there is a relationship between the consonant of **he** and the proto-Ch'olan suffix *\*-ij* in *\*chab'-ij* 'two days later', *\*ux-ij* 'three days later' and *\*chun-ij* 'four days later' (Kaufman and Norman 1984:138), although it is problematic that there is apparently a disparity between glyphic /h/ in the new phonetic interpretation of the T587 sign by Grube (personal communication, 1999). As for *-e'w* and *-e'n*, we are not sure. If *\*-ij* means something like 'later' relative to the point of speaking, then *-e'w* and *-e'n* may have the function of shifting the deictic *nunc* to an earlier point in time. Since the linguistic analysis and history of the glyphic expressions is not well understood, the marker cannot be regarded as a strong and major diagnostic trait.

Nevertheless, the distribution is interesting, and the sheer frequency of the expressions adds to the value of studying this trait. The expression **-he-wa** is the more general of the two, both geographically and temporally. Geographically speaking, it is all over the southern area; temporally speaking, the same holds: it is attested in Early Classic texts from El Peru, Joloniel, Tikal, Bonampak, Calakmul, Caracol, Tonina, and El Tumbor (as well as on the unprovenanced Kansas City panel) and it continues through the Late Classic period. **-he-na**, on the other hand, is largely restricted in space to the eastern area, being attested at Site Q, Copan, Sacul, Aguateca, and Coba from 9.11.7.7.18 (AD 660) onwards. What we see is apparently a language change starting to happen in Eastern Ch'olan. There are three exceptions to the distribution which we are at a loss to explain: Tonina, M.113 and Robey Coll., and the unprovenanced (but western) Randall Stela.<sup>2</sup> However, as we shall show, Tonina exhibits other linguistic peculiarities, so a breakdown in the distributional pattern at precisely this site is perhaps not so problematical. Otherwise, as all the other linguistic changes we have observed in the eastern area, the change signaled by **-he-na** continues to be confined to the east, showing something about the limited general influence from the east during the Late Classic, when the linguistically more dominant area as a whole is in the west.

#### *IK'-AT-na and CHAK-AT-na*

Another new trait is represented by the spellings **IK'-AT-na** and **CHAK-AT-na** for the two months that correspond to Yucatecan Wo and Sip. These spelling variants are also generally confined to the east (see Table 2). The more general pattern, found both in the east and west, is complementation by **ta** or the absence of complementation. While the phonetic reading of the logogram **AT** is fairly well established,<sup>3</sup> neither its meaning nor the function of the differences in the

complementation pattern is well understood. Although independent linguistic evidence that might support the interpretation of **na**-complementation as a specifically Eastern Ch'olan feature is lacking, it seems highly significant that its distribution is the same as that of other eastern features.

It was actually Fox and Justeson (n.d.) who first noticed this spelling variation. We must, however, disagree with their interpretation of it. In their view, such spellings are indicative of Yucatecan. The reason for this interpretation seems to be a preconceived notion that the eastern part of the southern lowlands is Yucatecan. The argument is that because Yucatecan speakers would no longer recognize the correct meaning of the Ch'olan month names, they misspelled them. This is not in itself a bad assumption, but there is no reason why they would misspell the words the way they did. Furthermore, the spelling variation is not random, as one might expect if the scribes no longer knew how to spell the word correctly. We actually have a very illustrative example of what can happen when a Yucatecan tries to spell a Ch'olan month name that does not make sense to him. This was produced by Landa's informant in his *Relacion de las cosas de Yucatan*, where *ik'-siho'm* is written **i-ki-SIHOM** (Figure 7). The informant fails to write a glottalized /k'/ because he no longer recognizes that the morpheme *ik'* 'black' is a part of the composite form, his word for 'black' being *ek'*.

The dates for the spellings variants **IK'-AT-na** and **CHAK-AT-na** are all rather early, occurring within the time span 9.0.0.0.0-9.12.15.0.0 [AD 435-687]. It is not until the Late Classic that we begin to see **ta**-complementation to these month names. We have found, as did Grube (1990:68), that the first instances occur on 9.14.15.0.0 [AD 726] (Dos Pilas, St. 8) and 9.14.0.0.0 [AD 711] (Naranjo, St. 23) for **IK'-AT-ta** and **CHAK-AT-ta**, respectively. We agree with Grube's

suggestion that the fact that the two dates are only 15 years apart seems to indicate that there is a shared development going on. After this date **ta**-complementation becomes common in the entire area, and is found both at sites lying within the area we have identified as belonging to the Western Ch'olan vernacular tradition (i.e., Tonina, Yaxchilan, Bonampak), as well as within the Eastern Ch'olan area (i.e., Itzan, Uaxactun, Copan, Sacul, Mountain Cow, Dos Pilas), as well as at Tila, which lies on the fringe of the Lowland Maya language region. Finally, they occur at the Northern sites of Jaina and Chichen Itza (Table 2). Thus, from the beginning of the eighth century the whole area seems to agree on the pronunciation of the two month names.<sup>4</sup> What might the development have been? Since there are simply no instances of complementation in the Western Ch'olan region before the eighth century, we cannot know for sure what the original Western form might have been. We consider it likely, however, that the original Western forms were in fact *ik'-at* and *chak-at*. The reason why we do not find complements in Early Classic texts from the western area is probably that there are simply not very many Early Classic texts to be found in the Western region and because the individual month names have a low frequency of occurrence. Even if the first instances of **ta**-complementation occur in the east, there is a possibility that this might actually represent Western influence. As mentioned, the first instances appear in the beginning of the eighth century. It is curious that the first instance of **ta**-complementation, at 9.14.0.0.0 [AD 711] (Naranjo, St. 23), occurs on the exact same date as the first securely identifiable instance of the spelling **WINIK-ki** for the 20-day period (Dos Pilas, St. 25), which is clearly a western form. About half a century earlier the western influence in the east had set in with the first instances of the *ajawlel* replacing *ajawil*. We think that **ta**-complementation in the east may be interpreted along the same line

as these other diagnostic markers, although the data, seen in isolation, admittedly do not justify any safe conclusions. As new inscriptions from the west are uncovered we hope that early instances of **ta**-complementation may be found that might support our interpretations.

### Tzeltalan

Mapping the distribution of Eastern and Western Ch'olan traits we have come across some unusual spellings that have caused us to suspect that not only Yucatecan and Ch'olan but also Tzeltalan traits are found in the hieroglyphic inscriptions. Such traits appear on the fringe of the Western Lowland Maya region. None are strong enough to suggest that the language written was actually Tzeltalan, but they are sufficiently remarkable to indicate that in the population of this region there was a spoken substratum of Tzeltalan derivation. We shall present the findings site by site.

### Tila

In Lacadena and Wichmann (in press) we suggest that the spelling **WINIK-li**, *winik[i]l* on "Tila" St. B for the "winal" glyph (Figure 8a) might be explained as a Tzeltalan word. Both in Tzotzil and Tzeltal *winikil* forms part of a series of month names (Fox and Justeson 1984:23-44), whereas the eastern and western Ch'olan forms for the 20-day period are respectively *winal* and *winik*.

### Joloniel

In an oral presentation (Wichmann and Lacadena 1999) we also appealed to Tzeltalan in order to explain the exceptional **na** occurring on the "Wo" glyph on the Joloniel cave inscription (Figure 8b). Since this is a singular instance of **na**-complementation outside of the eastern area, occurring in the westernmost fringes of the lowlands, this can hardly have anything to do with eastern vernacular influence. Thus, we speculate that this is due to a Tzeltalan substrate, although

we are aware that in the absence of independent linguistic evidence this must remain extremely hypothetical.

### Tonina

While the grammar in Tonina texts is generally indistinguishable from texts from other sites in the western region, the Tonina texts also contain some unusual forms. In particular, there are some strange spellings of the positional verb *chum* that clearly differ from the common Ch'olan positional paradigm attested elsewhere. Thus, at Tonina the 'seating' verb sometimes appears as **CHUM-mu-ji-ya** (Mon. 28, back, D5) or **CHUM-ji-ya** (M. 134 and 9.14.12.9.0 Stela, cf. figure 8c), although the normal Ch'olan form **CHUM-mu-la-ja** is also attested (the Stucco-Covered Throne). It is probable that **CHUM-ji-ya** constitutes evidence of the Tzeltalan positional derivation, which is reconstructed as *\*-h...-iy* in Tzotzil and *\*-h...-aj* in Tzeltal (Kaufman 1986:214). A form derived like the Tzeltal positional would be written in the same way as the Ch'olan *-h...-aj* passive, but it would be found on positional roots. **CHUM-ji-ya** would then be *chu[h]mjiiy*, //chu-h-m-aj-iiy//, probably containing the Ch'olan *-iiy* enclitic, if not representing an earlier form *-h...-aj-iiy* that later gave rise to *-h...-iy* in Tzotzil and *-h...-aj* in Tzeltal.

Another trait which is peculiar in the grammar of the inscriptions at Tonina, and which has been noted by Houston and colleagues (2000b), is the occasional (i.e., F. 91, pC1; F. 88, pA3; 9.13.7.9.0 Base, D) suffixation of the **li** syllabic sign to Glyph F of the lunar series and the positioning of this glyph just before the month expression. Possibly this might also reflect a Tzeltal substrate, although the very special content of the lunar series does not seem to allow for the kinds of direct comparisons with attestations from extant Tzeltalan or Ch'olan languages that would prove this hypothesis.

### **Pomona**

The same morphological form of the 'seating' verb that we have identified for Tonina also occurs at Pomona, on Fragment 21, which consists of merely two glyph blocks: a date in the month Mak followed by **CHUM-mu-ji-ya**. Given that Pomona is situated within the Western Ch'olan area rather than on its fringe, a Tzeltalan substrate is unexpected. An explanation in terms of a general Tzeltalan population substrate, then, is less plausible for Pomona than for the other cities mentioned or to be mentioned in this section. We know, however, that there were political ties between Tonina and Pomona. Thus, Tonina M.77-F.45 mentions the death of a female *ajaw*, seemingly from Pomona, who stands in some affinal or consanguine relationship to a person who must by inference be from Tonina itself. Furthermore, the two cities share a king name, Chak B'olo'n Chaahk (Guenther, personal communication, 2001). If elite interaction was intense between the two cities and if Tonina was the more dominant of the two, it is perhaps not so unexpected that a verbal form otherwise only known from Tonina should turn up in the inscriptions of Pomona.<sup>5</sup>

### **Chinkultic**

A looted inscription in Casa de Cultura, Comitán, classified as Chinkultic M. 28 in Navarrete (1984), has the spelling **i-la-ja** (Figure 8d), which deviates from the expected pattern—exhibited by spellings such as **IL-a-ji** (Tortuguero)—in that a short vowel is indicated. Other spellings that indicate a short vowel are confined to the eastern area, where the loss of vowel length is a regular process: **i-la-ja** (Naj Tunich), **IL-la-ja** (Aguas Calientes), **IL-ja** (Machaquila, Naj Tunich), and **i-IL-ja** (Copan). Since Chinkultic can hardly be considered an eastern Ch'olan site, the indication of a short vowel must be due to other reasons. We think that **i-la-ja** was written as it is because the scribe was a speaker of a Tzeltalan language which had

either lost or was in the process of losing vowel length distinctions.

### **Discussion**

The evidence from the various sites suggests a Tzeltalan spoken substratum lurking beneath the written Ch'olan prestige norm. Our observations partly confirm the general hypothesis of Houston and colleagues (2000a), that Ch'olan could function as a prestige language for the literate elite. With better data at hand it is possible that we might discern a stronger Tzeltalan influence from such poorly documented sites as López Mateos<sup>6</sup>, Tila, Joloniel, Yalaltsemem, Santa Elena Poco Uinic, Tenam Puente, Chinkultic, Sachana, and Ojo de Agua, but the case of Tonina suggests that we would still find the general written standard to be Ch'olan.

Another problem for the identification of Tzeltalan traits is that Ch'olan and Tzeltalan are sister groups that would probably have split only around half a millennium before the dedication of the western monuments and would thus have been similar in many important respects in the Classic period. An expression such as **u-CHOK-ji** at Tonina (e.g., M.7, H) provides an example. While many epigraphers would probably interpret the spelling as an abbreviation of *uchok [ch'aa]j*, an abbreviation of this sort would be unique, so it is more likely to be interpreted as representing *uchok[oo]j*;<sup>7</sup> now, the important thing is that the *-ooj* would be ambiguous, since it could represent either the Tzeltalan suffix *\*-ej~-oj* 'perfect status of transitives' (Kaufman 1972:145, #A53) or the Ch'olan *-oj* which today enters in fossilized form into a nominalizing suffix sequence *-oj-el* in Ch'ol and Ch'olti'. Similarly it is impossible to decide—all else being equal—whether at Tonina a spelling such as **TZUTZ-yi** represents a Tzeltalan or a Ch'olan form, since, besides the well-known Ch'olan mediopassive *-VV<sub>1</sub>y* suffix (MacLeod 1997; Houston *et al.* 2000a), there is a very similar

proto-Tzeltalan intransitivizing suffix of the shape *-Vy* (Kaufman 1972:142, #A30; cf. also Kaufman 1971:59, #35, where the suffix is cited precisely in combination with the verb root *tzutz* 'to end', deriving an intransitive verb 'to come to an end').

Once we have seriously embarked on finding Tzeltalan influence the question arises whether we might be more specific and distinguish between Tzeltal and Tzotzil influence. Justeson and colleagues (1985:5, Table 1) cite the same glottochronological estimates for the age of Ch'olan and Tzeltalan: 14c. This means that Tzeltalan could have split up roughly at the same time as Ch'olan. We have found the Ch'olan dialect differences to first be attested around AD 400 (Lacadena and Wichmann, in press). If Tzeltalan was also already breaking up during the Early Classic we should consider that the Tzeltalan influence we have discerned may be more specifically Tzeltal, given the sharp east-west divide between Tzotzil and Tzeltal. Today sites such as Tonina and Chinkultic belong to the Tzeltal area and may well also have done so in the Classic period. So far there is very little independent linguistic evidence that identifies the influence as specifically Tzeltal. In relation to our suggestion that failure to distinguish vowel length in some spellings at Tonina and Chinkultic is linguistically significant, it is nevertheless interesting to note that Tzeltal has completely lost any sign of former vowel length, whereas Tzotzil, although partly and indirectly, preserves vowel length, since it distinguishes /o/ from original short *\*a* and /a/ from original long *\*aa*. The situation may be similar to the Ch'olan area, where Western Ch'olan indirectly preserves vowel length in the /ä/ vs. /a/ distinction (from *\*a* and *\*aa*, respectively) and also retains vowel length throughout the Classic, whereas Eastern Ch'olan retains no trace of former vowel length and correspondingly shows evidence of loss of the distinction already during the Late Classic (Houston *et al.* 1998; see also

Lacadena and Wichmann, in press). Thus, just as we have used the replacement of disharmonic spellings indicating vowel length to identify Eastern Ch'olan as opposed to Western Ch'olan, we may perhaps use the same feature to identify Tzeltal as opposed to Tzotzil.

Other scholars have similarly suspected a presence of Tzeltal at some of the Classic Maya sites that have monumental inscriptions. In his commentaries to the Tila inscriptions, Beyer (1924:250) remarks that although Tila today lies within the Ch'ol area, it is very close to the Tzeltal area, and that it cannot be excluded that the geographical limits separating the two linguistic groups were different then from what they are now. Ayala (1995:236-254, 1997), studying the case of Tonina, actually claims that an ethnic identification of the population of Tonina as Tzeltal is possible using textual material. Her argument builds up stepwise as follows: the emblem glyph of Toniná is to be read *po'*. The designation seems to be the same as an ethnonym, given variously as <poo> and <popo> in the so-called *Paxbolon-Maldonado Papers* (Scholes and Roys 1948: ms167-168; 376-377) and as <poo unicob> in another indigenous reference. Drawing upon ethnohistorical sources describing various Spanish entradas into the Ocosingo Valley, Ayala (1995) shows that the ethnic group in question, which inhabited Tequepa Pochutla, was linguistically distinct from the Ch'ol-speaking Lacandons and infers that they were speakers of Tzeltal. This ethnic group, she suggests, comprises descendants of the original inhabitants of Tonina. Later epigraphic research makes it more likely that the name contained in the Tonina emblem glyph is *popo'*<sup>8</sup>, but given that *popo'* matches one of the two alternative designations in the *Paxbolon-Maldonado Papers*, this does not affect the argument.

We have so far assumed that the possible percolation of Tzeltalan features in the

inscriptions of some of the westernmost Classic Maya sites are due to Tzeltalan speakers who wrote in Classic Ch'olan. We have not considered the alternative scenario that these inscriptions were produced by Ch'olans who were exposed to Tzeltalan influence. The ethnohistorically documented placement of Tzeltales in the Ocosingo Valley and associated areas makes this latter alternative inherently unlikely. There are also linguistic reasons, however, for assuming the former scenario. If Tzeltales are writing in Ch'olan we would expect to register a linguistic influence passing from Ch'olan to Tzeltal, but if the Ch'olan texts that have a percolation of Tzeltalan features were written by Ch'olans, these Ch'olans would be linguistically under the influence of Tzeltalans. Thus, the study of linguistic diffusing might shed light on which of the two hypotheses is the better one. It turns out that linguistic diffusion supports the hypothesis that we have already presented. As a first probe we have studied the 50-item list of Greater Lowland Mayan in Justeson and colleagues (1985:12, Table 4). If a vocabulary item on this list is attested in only one of the two Tzeltalan languages, this would indicate a Ch'olan-to-Tzeltalan direction of the borrowing and if, furthermore, the single Tzeltalan language involved is Tzeltal—as opposed to Tzotzil—then there would be evidence for a special relationship between Tzeltal and Ch'olan, with Tzeltales figuring as recipients of Ch'olan culture. This is indeed what we find when inspecting the list. We have only found Tzotzil attestations for 22 out of the 50 items. Since an item would not otherwise qualify as Greater Lowland, there must be Tzeltal attestations for all the remaining 28 items (the list does not cite forms for each individual language but we have to trust the authors that they actually exist). The absence of Tzotzil attestations for a large proportion of items cannot be explained by inadequate documentation because we have at our disposal the most exhaustive

dictionaries of any Mayan language, namely Laughlin (1975, 1988). More work remains to be done on Tzeltalan-Ch'olan linguistic interaction not only in terms of vocabulary but also grammar, and our results suggest a likelihood that a particularly strong interaction took place between Western Cholan and Tzeltal, with Tzeltal receiving more than it donated and the context of interaction one of elite members of Tzeltal communities adopting Ch'olan language and cultural features.

### **A Case Study of Diglossia: Positional Verbs at Palenque**

The distribution of linguistic traits shown in Map 1 is not static. Different traits are innovated at different times and places (especially Western Ch'olan features), and some spread beyond the area of innovation while others remain in the area (especially Yucatecan and Eastern Ch'olan features). Beyond the glyphic evidence there is evidence from the modern Lowland languages of heavy interaction, as has been discussed by different authors, for example Kaufman (1976), Hopkins (1984, 1985), and Justeson *et al.* (1985). Pulling all the accumulated information together to present a dynamic picture of linguistic interaction in the Maya Lowlands, however, exceeds the limits of this paper. Instead we shall open up a window to one particular area and present a case study of diglossia; for example, the use by the same speaker of different languages for different purposes (Ferguson 1959), focusing on just one grammatical feature, namely the paradigm of positional verbs.

Zachary Hruby (see Hruby and Child, forthcoming) applied a distributional analysis to the *-waan* and *-laj* affixes of the positional paradigm that had been discovered by MacLeod (1984) and found the following patterns: *-laj* is the earliest positional suffix in use and continues to be used throughout the Classic. From 9.10.18.0.0, however, a new

form, *-waan*, competes with *-laj* and manages to spread to non-Western cities, not only in the Western Ch'olan area but also in the northwest of Yucatan at Oxkintok (García and Lacadena 1990:164). Nevertheless, after 9.14.10.0.0 there are no more *-waan* forms in the Palenque area; here, at the center of innovation of *-waan*, the older form, *-laj*, becomes the exclusive form, whereas *-waan* continues to be used in the "diaspora", for example, at Copan where it continues for as long as there are monumental inscriptions (Hruby and Child, forthcoming). Now, it is noteworthy that an addition form, *-(V)l-iiy*, which must have had a function rather similar to *-waan / -laj*, occurs during roughly the same period as *-waan*, i.e., 9.12.11.12.10-9.14.8.14.15 (Figure 9a-b). The same suffix sequence also appears in an undated inscription at Tikal illustrated in Schele and Mathews (1998:80) (Figure 9c). The spelling **CHUM-mu-li-ya** was noted by Houston and colleagues (2000a: Table II), although the authors do not discuss it in detail. Although *-l-iiy* is rare it nevertheless represents the key to understanding linguistic continuity in the positional paradigm in the west. Houston and colleagues (2000a) show that the positional marker *-V<sub>1</sub>l-* goes all the way back to proto-Mayan (cf. their Table V). Kaufman and Norman (1984:106) present some internal evidence that might also support a reconstruction for proto-Ch'olan. They state that:

Cholan languages have an instrumental suffix *-ib'* that derives instrumental or locative nouns from intransitive lexical stems (cf. Warkintin and Scott 1980:20-22). Subtracting *-ib'* from the instrumental nouns from positionals such as Chol *b'uchl-ib'* 'seat', *jok'l-ib'* 'place to hand things' leaves a CVC-*l-* stem. The lexical stem of positional intransitives in Tzeltalan is also CVC-*l-*. For example, the Tzotzil nominalizer *-ej* is added to a CVC-*l* stem to form nouns derived from positional

intransitives, cf. *chot-l-ej* 'sitting, place to sit', *nup-l-ej* 'pair'. Thus the proto-Greater Tzeltalan lexical stem of the positional intransitive was \*CVC-*l-*.

If Kaufman and Norman's (1984) \*CVC-*l-* "stem" is reinterpreted as a \*CVC-*V<sub>1</sub>l-* stem, which would become indistinguishable from a CVC-*l-* under suffixation, their line of argumentation may be used for arguing that an original \*CVC-*V<sub>1</sub>l* stem, identical with the participial of modern Ch'olan languages, was also used for forming instrumentals.<sup>9</sup> Thus, both the glyphic and linguistic evidence shows that *-V<sub>1</sub>l* is an old Ch'olan element forming positionals.

Since *-laj* is a Ch'olan innovation, it seems likely that it is a composite suffix containing the *-V<sub>1</sub>l* plus the *-aj* thematic marker of derived intransitives, which probably also indicated the perfective aspect. It is a possibility that *-l-aj* was actually an Eastern Ch'olan innovation, if Houston and colleagues (2000a) are correct in their historical reconstruction. In any case, the glyphically attested *-l-iiy* forms must be direct ancestors to the modern Ch'ol *-le(y)* 'perfective of positionals' (Bricker 1986:35, Table 17) and the Chontal *-l-i* '(third person) perfective of positionals', which is listed as synonymous with *-wäni* in Keller and Luciano (1997:460). While *-l-iiy* in Classic times would probably still be interpreted as marking stative + past reference, it became a simple perfective marker in Ch'ol, occupying the same place as *-wan-i* in Classical Chontal and *-wän-i* in Modern Chontal (both probably from *waan-iiy*).

To sum up the situation at Palenque, then, we have a rather complex picture. During a brief period, about 9.12.10.0.0-9.14.10.0.0, there are three closely related positional forms in play. One, *-l-aj*, is the traditional form which may either have come about in proto-Ch'olan times or have been innovated in the eastern branch and employed by literate members of the elite applying the norms of a

'high' or 'prestige' language. Another form, *-waan*, enters the picture, either as the result of Chontal influence on the prestige norm or as the percolation of the Chontal vernacular. At the same time a third form, *-l-iiy*, is being employed for the past stative. This form is not in itself indicative of a particular language, since it is composed of *-V<sub>1</sub>l* and *-iiy*, both of which are shared, inherited suffixes. Thus, its use at Tikal is not necessarily indicative of Western Ch'olan influence.<sup>10</sup> At Palenque, however, we suspect that the suffix sequence acquires a special character since we know that it becomes the origin of the Ch'ol perfective, also surviving in Chontal in this function, and thus is likely to have had a function akin to the perfective of positionals in the speech of the city's inhabitants already in Classic times.

Until 9.10.18.0.0 the positionals at Palenque carry *-l-aj*. After this date a new suffix *-waan* begins to be employed. We suspect that the *-waan* suffix is also a 'high' diglossic form, such that a Chontal prestige form replaces another—archaic or Eastern Ch'olan—prestige form in this instance. The *-l-iiy* sequence seems to be the one true marker of regional speech. It is not clear whether the dialect spoken at Palenque was an ancestral form of Chontal or Ch'ol or some third western Ch'olan dialect, but surely the scribes of the city must have practiced a complex and dynamic diglossia.

### Conclusion

The language situation in the Classic Maya lowlands is extraordinarily rich and not unlike like the Ancient Near East where, for example, at a site such as Ugarit, a variety of languages are found (Akkadian, Ugaritic and Hurrian) and where the situation is one of diglossia. Ch'olan held a special prestige and was used for writing texts legitimizing rulership among native speakers of both Yucatec and Tzeltal. Ch'olan itself was splitting into dialects during the Early Classic period, and during the Late

Classic the Western dialect, in particular, effected changes in the prestige norm, which itself may (Houston *et al.* 2000a) have been of Eastern Ch'olan (Ch'olti'an) extraction. The Lower Usumacinta is a particularly dynamic region with Ch'olan heavily influencing the neighbouring Yucatecan and Tzeltalan dialects and linguistic innovations coming about and spreading hand in hand with paleogeographical traits and other features of communicative style. The case study reveals how complicated the situation is when looked upon in detail, with different prestige forms *-laj* and *-waan* reigning at different times, and the true spoken form percolating only in a few, easily overlooked instances.

Future research should aim to correlate the different kinds of evidence for interaction in the region—architectural and sculptural styles, paleogeography, ceramics, historical information from the inscriptions, etc.—with the linguistic information in order to contextualize the language situation which is beginning to emerge from the study of hieroglyphic inscriptions.

Table 1. The distribution of -he-na / -he-wa.

**-he-na**

SITE	MONUMENT	SPELLING	DATE
Piedras Negras	St. 25 (I8)	-he-na??	9.8.15.0.0 (AD 608)
Site Q	Panel 1 (E6)	-he-na	9.11.7.7.18 (AD 660)
	Panel 4 (A1)	-he-na	9.11.11.11.1 (AD 664)
Tonina	M.113 (h)	1-he-na	9.12.0.0.0 (AD 672)
	Panel, Robey Coll.	-he-na?	
Copan	St. 10 (H1)	-he-na??	9.12.0.0.0 (AD 672)
	St. J (front)	BONE.HEAD-na	9.13.10.0.0 (AD 702)
	Ball Court Panels	-he-na	
	CPN 140	-he-na	
Sacul	St. 1 (A9)	-he-na	9.16.10.0.0 (AD 761)
Aguateca	St. 13, upper fragm.	-he-na	
Coba	St. 19	-he-na??	

**UNPROVENANCED**

Randall Stela		-he-na	10.1.15.0.0 (AD 864)
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**-he-wa**

SITE	MONUMENT	SPELLING	DATE
El Peru	St. 15 (D9)	-he-wa?	8.19.0.0.0 (AD 416)
Joloniel Cave		-he-wa	9.0.0.0.0 (AD 435)
Tikal	St. 31 (G25)	-he-wa	9.0.10.0.0 (AD 445)
	"Hombre" (D5)	-he-wa	
	St. 40 (E3)	-he-wa	
Bonampak	Panel (Mayer 1984: Pl. 27)	-he-wa?	9.3.3.16.4 (AD 498)
Calakmul	St. 43	-he-wa?	9.4.0.0.0 (AD 514)
	St. 114	-he-wa	
Caracol	St. 13 (back, C13)	-he-wa	9.4.0.0.0 (AD 514)
	St. 14 (front, D9)	-he-wa	9.6.0.0.0 (AD 554)
	St. 22	-he	
El Temblor	St. 1 (right, A6)	-he-wa	(Early Classic)
Tonina	Early Classic disc (new) <sup>11</sup>	-he-wa	9.4.0.0.0 (AD 514)
	M.7 (A1)	-he-wa	9.16.10.0.0 (AD 761)
	M.141 (B3)	-he-wa	
	(C2)	-he-wa	
	M.148 (5)	-he-wa	
Piedras Negras	Pestac Stela (D6)	-BONE.HEAD-wa?	
	L.12 (I2)	-he-wa	9.4.3.0.17 (AD 517)
	St. 29 (C2)	-he-wa	9.5.5.0.0 (AD 539)
	L.2 (X1)	-he-wa	9.11.15.0.0 (AD 667)
	St. 22 (right, A3)	BONE.HEAD?-wa	9.16.5.0.0 (AD 756)
(attr.)	Mayer (1989: Pl. 103)	-he-wa	
Naranjo	H.S. 1 (M3)	-he-wa	9.10.10.0.0 (AD 643)
Pusilha	St. D (D8)	-he-wa	9.10.15.0.0 (AD 647)
	(F10)	-he	
	St. P (C2)	-he-wa	9.10.15.0.0 (AD 647)
	(C10)	-he	
	(G7)	-he-wa	
Copan	St. 5 (north, A1)	-he-wa	9.11.15.0.0 (AD 667)
	St. I (north, D6)	-he-wa	9.12.3.14.0 (AD 676)
	St. 32	-he-wa	



Table 2. The distribution of -na and -ta complements to the “Wo” and “Sip” month glyphs.

**-na complementation**

SITE	MONUMENT	SPELLING	DATE
Joloniél Cave		IK'-AT-na	9.0.0.0 (AD 435)
Copan	St. E	[CHAK-]AT-na	9.5.10.0.0 (AD 534)
	Altar, St. E, Dp	IK'-AT-na	
	Altar, St. I	IK'-AT-na	9.12.15.0.0 (AD 544)
Naranjo	Lintel 1	IK'-AT-na	9.10.0.0.0 (AD 633)

**-ta complementation**

SITE	MONUMENT	SPELLING	DATE
Naranjo	St. 23	CHAK-AT-ta	9.14.0.0.0 (AD 711)
Jaina	Onyx Marble Bowl, B3	CHAK-AT-ta	9.14.6.5.19 (AD 718)
Dos Pilas	St. 8, G13	IK'-AT-ta	9.14.15.5.15 (AD 727)
Copan	Alt. S, H	CHAK-AT-ta	9.15.0.0.0 (AD 731)
	St. N, east	CHAK-AT-ta	9.16.10.0.0 (AD 761)
	Inscr. Str. 10L-22A	CHAK-AT-ta	9.17.10.0.0 (AD 780)
	Alt. L	IK'-AT-ta	9.19.11.14.5 (AD 822)
	Rev. St.	CHAK-AT-ta	
Yaxchilan	L. 56, G1	CHAK-AT-ta	9.15.6.13.1 (AD 738)
	L. 31, I4	IK'-AT-ta	9.16.13.0.0 (AD 764)
	HS. 5, 158, 168	CHAK-AT-ta	
	HS. 5a, B2	CHAK?-AT-ta	
Tonina	M.7, K	IK'-AT-ta	9.16.10.0.0 (AD 761)
	M.1	IK'-AT-ta?	
	M.126	CHAK-AT-ta	
Sacul	St. 1, C4	CHAK-AT-ta	9.16.10.0.0 (AD 761)
	St. 6, A2	IK'-AT-ta	9.17.9.4.9 (AD 780)
Itzan	St. 17, E8, L1	IK'-AT-ta	9.17.10.6.17 (AD 781)
Uaxactun	St. 13, A2	CHAK-AT-ta	10.0.0.0.0 (AD 830)
Tila	St. A, B5	CHAK-AT-ta	10.0.0.0.0 (AD 830)
Mountain Cow	Alt. 1	IK'-AT-ta	10.0.5.0.0 (AD 835)
Chichen Itza	T.4 L., L.2, C1	CHAK?-AT-ta	10.2.12.2.4 (AD 881)





Figure 7.

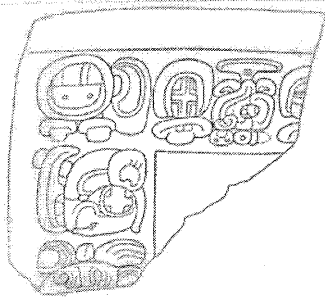
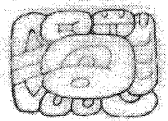
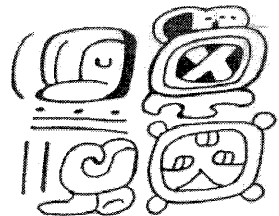
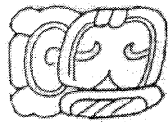


Figure 8.



Figure 9.

### Notes

1. The spelling **t'a?-b'a-yi**, at Ikil, was given as a possible instance of a not previously recognized syllabic sign, **t'a**, in an e-mail circulated by David Stuart in 1998. This spelling would correspond to the expected Ch'olan form.
2. What looks like an occurrence on Piedras Negras St. 25 is probably only apparent—the example is eroded.
3. Substitution at Copan Temple 11 and on Altar Q of the “Wo”/”Sip” main sign for the ‘penis’ logogram in the name of *Yax Pasaj Chan Yop Aat* secures the AT reading (D. Stuart, personal communication, 2000). The reason why the two do not substitute for each other more often is probably the difference in vowel length, ‘penis’ having a long vowel (as shown by the frequent **ti** complement) and the month term having a short vowel (shown by frequent **ta** complementation). Precisely at Copan Temple 11, dubbed ‘the Temple of the Short Vowel’ in Houston *et al.* (1998), however, vowels which are normally written as long vowels often appear with synharmonic complements, as short vowels. Another spelling which supports an AT reading of the “Wo”/”Sip” main sign is **CHAK-a-ta** on a newly discovered capstone from Ek’ Balam.
4. Palenque is a possible exception. When phonetic complementation is found at this site it is done with a (possible) **ma**-sign. We are presently unable to account for this peculiarity.
5. There are other occurrences of **-h...-aj** on positionals, i.e., at Tikal and Caracol. However, these early attestations in the Eastern Lowlands are not to be

interpreted as evidence of Tzeltalan, but as vestiges of a pre-Classic Ch'olti'an stage, before \*-l-aj took over the function of marking intransitive positionals in Eastern Ch'olan, causing \*-h-...-aj to be displaced to a passive function. This historical linguistic scenario was proposed by Houston *et al.* (2000a) and it seems confirmed by the glyphic data.

6. Houston *et al.* (2000a) remark on the aberrant López Mateos inscriptions, comparing the situation to sites in Northern Yucatan where textual bilingualism goes hand in hand with paleographical deviance. According to Stephen Houston (personal communication, 2000), Stela 9, published along with other monuments in Navarrete *et al.* (1993), is linguistically very different from other Maya monuments.

7. The -ooj 'perfect status of transitives' has been independently identified by MacLeod (forthcoming).

8. Simon Martin (personal communication, 2000) has told us about an idea of David Stuart's that the two little half circles that sometimes occurs inside the po-sign in the Tonina emblem glyph may be so-called 'doublers' whose function is to reduplicate a syllabic sign. It is thus likely that the name is *popo*' and not, or at least only alternatively, *po*'. Thus, Macri's attempt, in her introduction to Ayala (Macri and Ford 1997:69) to draw a connection between the Tonina emblem and the Mixean word for 'moon', *po'o*, cannot be accepted. Nevertheless an old Mixe-Zoquean origin for the name is not out of the question. The proto-Zoquean word for 'white' is precisely *popo*' (Wichmann 1995:435, PO#032) and 'white' makes sense insofar as the indigenous name for the nearby site of San Andrés Larrainzar, according to Ayala (1997:74), originally was named *Sakamchen* 'white cave' (a name which was translated to the Nahuatl *Ixtacostoc* in Colonial records). Possibly Tonina was originally called something like *Popo' Tzatäk* 'white cave' in Zoquean (cf. pZ *tza-täk* lit. 'stone-house', as reconstructed by Wichmann 1995:465), following a deep Mesoamerican tradition of naming places after caves; the incomprehensibility of the name to later Mayan inhabitants could explain why it was reduced to *Popo*'.

9. The instrumental derivation in -l-ib' is actually glyphically attested at Tonina, Cancuen, and 'Site Q'. It will be discussed in a separate paper.

10. Even if -l-iij at Tikal does point to Western Ch'olan the influence could be restricted to a short period and be related to very specific circumstances comparable with or perhaps even identical with the situation which, according to Hruby and Child (forthcoming), accounts for the singular instance of -waan at Tikal, namely Tikal's successful war against Calakmul in AD 695, a war which may have been carried out in alliance with Palenque.

11. This is the 9.4.0.0.0 Altar first exhibited in 1998 at the Museo Alberto Ruz Lhullier during the third

Palenque Round Table and now in the museum of Tonina.

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