RECONSTRUCTION OF THE PROTO-CH'OLAN DEMONSTRATIVE PRONOUNS, DEICTIC ENCLITICS, AND DEFINITE ARTICLES[1]

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Abstract

This paper reconstructs the independent pronouns of Proto-Ch'olan (Mayan), and traces the changes that took place in the descendant languages – Ch'ol, Chontal, Ch'olti', Ch'orti'. The evidence points to three subsets of pronouns for Proto-Ch'olan: *ha7-*, *ha7in-*, *nats'-*. The first is a descendant of the Proto-Mayan pronoun base *ha7-*. The second is an amalgamated base with a grammaticalised demonstrative enclitic *+ in*. And the third is a grammaticalised positional root *nats'* 'nearby'. Proto-Western Ch'olan (Ch'ol-Chontal) innovated the pronoun base *hin-*, attested in Classic Mayan texts as a possible diagnostic of Western Ch'olan vernacular speech, through contraction of Proto-Ch'olan *ha7in-*, while Ch'orti' innovated the pronoun base *ha7ax* through amalgamation and contraction of a deictic frame involving the pronoun base *ha7* and the demonstrative *ya7x* 'there' (*ha7... ya7x > ha7 + ya7x > ha7ax*). Chontal exhibits the most change in its independent pronoun system, through its use of ergative person-agreement markers instead of absolutive ones to inflect the pronoun base. And finally, in addition to providing

support for the reconstruction of deictic enclitics (*+*a* 'here', *+*i* 'there', *+*e* 'over.there'), the paper proposes the origin of the Ch'olan definite articles in the Proto-Ch'olan pronoun base *ha7in*, and shows that these serve as yet another trait that distinguishes Eastern Ch'olan (*ha7ine*) from Western Ch'olan (*hini*).

1. INTRODUCTION

This paper offers a reconstruction of the independent pronouns of Proto-Ch'olan, the ancestor of the four known Ch'olan (Mayan) languages – Ch'ol, Chontal, Ch'olti', and Ch'orti' – spoken in Mexico, Guatemala, and Honduras.[2] My more specific goals are:

1. to reconstruct the paradigms for the independent pronouns of Proto-Ch'olan;
2. to discuss changes from Pre-Ch'olan and Proto-Ch'olan to the present, including the intermediate Eastern Ch'olan and Western Ch'olan proto-languages, as well as each of the descendant languages;
3. to suggest a sociolinguistically feasible scenario – not quite a fully articulated model – for the attested variation;
4. to reconstruct the history of the deictic enclitics and definite articles of the modern Ch'olan languages.

These goals are addressed through an examination of the data from the three modern languages (Ch'ol, Chontal, Ch'orti'), a colonial and now extinct language (Ch'olti'), and a Classic and now extinct[3] language attested in texts (Classic Lowland Mayan, CLM)

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[2]In general IPA is used in transcription of Mayan languages in this paper. Nevertheless, the following correspondences of conventional orthographic signs used by many Mayanists with those of the IPA are important to keep track of: < b' > / < ɓ > for the bilabial implosive, < 7 > / < ' > (some sources cited with their original < ' >) for the glottal stop, < tz > for [ts], < ch > for [tʃ], < x > for[ʃ], < j > for [x], and < ä > for 'schwa' or 'wedge'. However, many Mayanists have used < j > for [h], particularly for languages, such as Ch'ol, in which the Proto-Mayan /h/:/x/ distinction (i.e. /h/:/j/) has been neutralized. Thus, for consistency, this paper uses < j > for [x] and < h > for [h]. In citing colonial alphabetic manuscripts, < > are used to enclose alphabetic spellings. Abbreviations used: ABS = absolutive, CL=classifier, DET = determiner, ENCL = enclitic, ERG = ergative, p = plural, PARTC = participial, PREP = preposition, PRO = pronoun, s = singular.

[3]Classic Lowland Mayan (CLM) may be considered extinct for analytical purposes in the same sense that Old and Middle English are extinct: no one alive today speaks in those varieties of English.

dating to *c*. AD 200–900. The data from other Mayan subgroups, primarily Tzeltalan and Yucatecan, are also relevant, as a result of contact with the Ch'olan languages, and are also discussed, and Proto-Ch'olan-Tzeltalan reconstructions are also considered, although they do not constitute the focus of the present study. It is shown that two distinct lexical sources gave rise to distinct pronoun sets of Proto-Ch'olan and its descendants, one based on the pronoun base **ha7-*, which led to several variants as a result of incorporation and reanalysis of deictic enclitics and absolutive person-agreement markers, and the other based on the adverbial root **nats'* 'near', as a result of grammaticalisation. Also through grammaticalisation, Proto-Ch'olan innovated the use of **ha7in-Ø* 's/he/it; her/him/it' as the article 'the'. And last, the textual distribution of the pronouns **ha7-Ø(+ i/ + a)* and **hin-Ø(+ i/ + a)* 's/he/it; her/him/it' during the Classic period is suggestive of distinct registers based on formality, leading to the conclusion that the Ch'olan-speaking members of Classic Lowland Mayan society – which was almost certainly a multilingual society – used several different independent pronouns, which were likely determined by social factors such as class and status. Before providing the data and analysis, it is necessary to outline the basic background to the languages and the linguistic region.

2. BACKGROUND

The Ch'olan languages are a subgroup of the Mayan language family (Figure 1). They are very closely related to the Tzeltalan languages, together forming a larger subgroup referred to in this paper as Ch'olan-Tzeltalan.[4] The two have had significant contact in the Mayan lowlands with the Yucatecan subgroup, in the context of two linguistic contact spheres (Justeson, Norman, Campbell & Kaufman 1985): the Greater Lowland Mayan area, including the Ch'olan-Tzeltalan and Yucatecan groups starting in the Middle Preclassic period (*c*.1000–400 BC), and subsequently as part of the Lowland Mayan area, including the Ch'olan and Yucatecan languages, starting in the Late Preclassic (*c*.400 BC–AD 200).

In addition, after the split of Proto-Ch'olan into two branches, Western Ch'olan and Eastern Ch'olan, the western branch engaged

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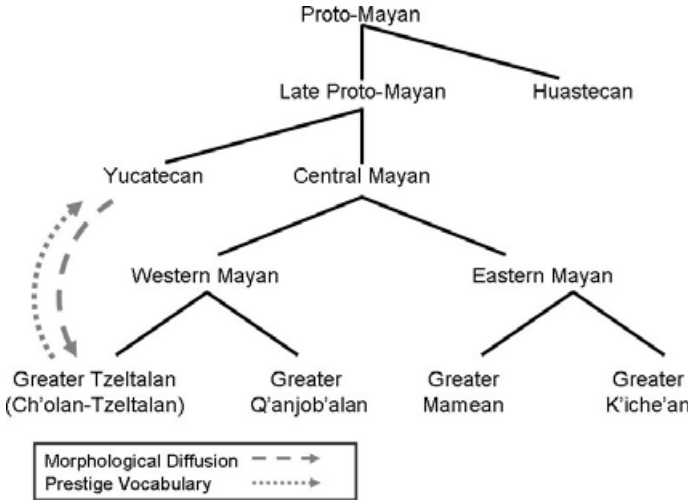[4]Ch'olan-Tzeltalan: a.k.a. Greater Tzeltalan.

Figure 1. Phylolinguistic classification of Mayan languages by Kaufman (1989, 1990), with indications of types of linguistic contact between Ch'olan-Tzeltalan and Yucatecan

the Tzeltalan subgroup in significant contact, resulting in the diffusion of morphological material exclusive to these two groups (Figure 2). Eastern Ch'olan, primarily (but also Western Ch'olan) seems to have become engaged with Yucatecan after the split (Hofling 2006).

Kaufman and Norman (1984) first proposed six morphological traits that supported their Western Ch'olan, including Ch'ol and Chontal, as well as Acalan, an earlier form of Chontal attested in a set of documents from 1610–12 (Smailus 1975), versus Eastern Ch'olan, including Ch'olti' and Ch'orti', split (Table 1). They observed that some of these traits are innovations of Western Ch'olan, including two (1a and 1b) that are shared with Tzeltalan as a result of contact diffusion. Traits 7 and 8 the authors argued were ambiguous, and did not support any particular branching that would be consistent with other sets of data.

It is also necessary to mention the sets of ergative and possessive agreement markers of the relevant subgroups (Table 2), including the Proto-Mayan reconstructions by Kaufman (1989). Mayan languages typically exhibit morphological ergative–absolutive alignments:
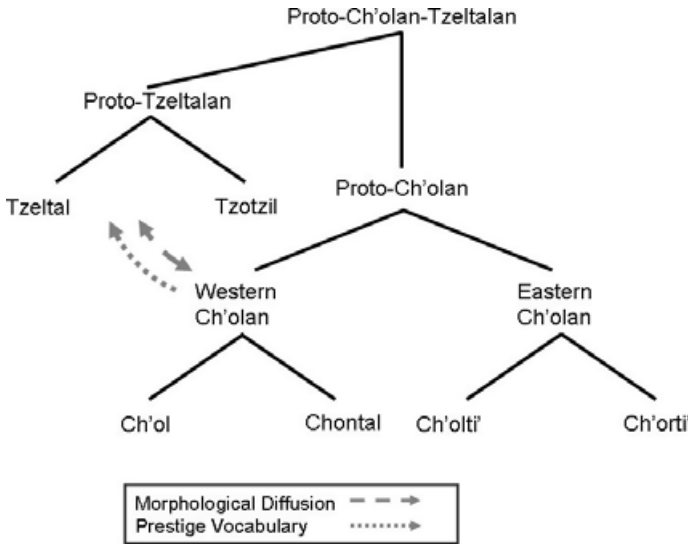
Figure 2. Phylolinguistic classification of Ch'olan-Tzeltalan subgroup, indicating nature of strong linguistic contact between Tzeltalan and Western Ch'olan

Table 1. Kaufman and Norman's (1984) morphological traits distinguishing Eastern Ch'olan (Ch'olti', Ch'orti') from Western Ch'olan (Ch'ol, Chontal)

Feature	Ch'ol	Chontal	Ch'olti'	Ch'orti'
Morphological				
1. 1s				
a. ERG	k-	ka-/k-	in-/inw-	ni-/niw-/inw-
b. ABS	-on	-on	-en	-en
2. 2p				
a. ERG	la'-	a-... la'	i-	i-
b. ABS	-etla	-etla	-ox	-ox
3. Passive of derived transitives	-nt	-nt	-na	-na
4. Thematic suffixes of intransitives	No	No	Yes	Yes
5. -es causatives	No	No	Yes	Yes
6. Inchoative suffix	-'an	?	-l	-r
7. Indicative of TV roots	-V_1	-i	-V_1	-i/-e
8. Preposition	ti	ta/ti	ti	ta

Table 2. Ergative person-agreement markers

Person	Proto-Ch'olan	Proto-Tzeltalan	Proto-Ch'olan-Tzeltalan	Proto-Yucatecan	Proto-Mayan
1s	n-	n-	n-	in-	nu-
2s	a-	a-	aa-	a-	aa-
3s	u-	s-	u-	u-	u-
1p	kä-	j- ∼ k-	ka-	k(a)-	qa-
2p	i-	a-...+ex ∼ a-...+ox	ii-	a-...+e7x	ee-
3p	u-...+ob'	s-...+ik	u-...+eb'	u-...+o7b'	ki-

the markers function as person-agreement markers on the verbs, not as case markers on the nouns.

The absolutive agreement markers are also of relevance (Table 3). Yucatecan has influenced the Ch'olan paradigm significantly, as first proposed and argued by Hopkins (1984; 1985), and subsequently by Kaufman (1989). The 2nd person plural form (2p) of Proto-Ch'olan, *-ix, can be explained if one assumes that it underwent the exclusive Ch'olan vowel shift of *ee/*e7 > *ii > *i, and then only if one assumes that this absolutive suffix was borrowed from Yucatecan as *-e7x first, for in Yucatecan both -e7x '2pABS' and -o7b' '3pABS' acquired their preconsonantal glottal stop through a process of (partial) analogical levelling based on the form -o7n '1pABS', from Proto-Mayan *-o7ŋ (Kaufman 1989c: 75).

On a different but important note, Kaufman and Norman (1984) reconstruct Proto-Ch'olan as having lost the vowel-length distinctions that were certainly present in Proto-Ch'olan-Tzeltalan. However, Justeson et al. (1985) have noted that Pre-Ch'olan must have preserved phonemic vowel length, for Yucatecan borrowed Ch'olan words that reflect the second half of the exclusive Ch'olan vowel shift, this time *oo/*o7 > *uu > *u, and in so doing they

Table 3. Yucatecan-to-Ch'olan influence in absolutive person–verb agreement markers

Person	Proto-Ch'olan	Proto-Tzeltalan	Proto-Ch'olan-Tzeltalan	Proto-Yucatecan	Proto-Mayan
1s	+en	+in	+in	+en	+iin
2s	+et	+at	+at	+ech	+at
3s	+Ø	+Ø	+Ø	+Ø	+Ø
1p	+on	+on	+on	+o7n	+o7ŋ
2p	+ix	+ex ∼ +ox	+ex	+e7x	+ex
3p	+o7b'	+ik	+eb'	+o7b'	+ob'

Table 4. Kaufman's (1989) Proto-Mayan deictic enclitics

Deictic	Gloss	Source
*+a	'(this) right here'	Kaufman (1989)
*+i	'this/here'	Kaufman (1989)
*+e	'relatively far from speaker'	Kaufman and Norman (1984) for Proto-Ch'olan
*+e	'that/there; the'	Kaufman (1989) for Proto-Mayan
*+o	'yon(der)'	Kaufman (1989)

borrowed them with long vowels. One such word is *tùun 'stone', and the other is *kùuts 'wild turkey'. Proto-Mayan had *tooŋ, which would have been preserved in Yucatecan as *tòon. Instead, Yucatecan borrowed Pre-Ch'olan *tuun as *tùun (Justeson et al. 1985). Proto-Mayan had *kootz, which would have been retained in Yukatekan as *kòotz, but Yukatekan has *kùutz instead.

The set of deictic enclitics reconstructed to Proto-Mayan by Kaufman (1989) (Table 4) must also be kept in mind. These are preserved in Proto-Ch'olan, although not very thoroughly or productively in the modern Ch'olan languages – except perhaps for Chontal, as discussed below.

Lastly, it is necessary to review the form of the Proto-Mayan independent pronouns as reconstructed also by Kaufman (1989) (Table 5). Note that they all share a pronoun base *ha7, and they are composed of this base followed by the absolutive agreement markers. This was the case, most likely, regardless of whether the pronoun represented an ergative or absolutive argument. In Kaufman's scheme, any deictic enclitics used to distinguish between (for example) 'She over here' and 'She over there' would follow the absolutive marker.

3. DATA AND ANALYSIS

Table 6 shows the Ch'olan data for independent pronouns.[5]

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[5]The data here are provided with the orthography of the sources: Aulie and Aulie (1999) for Ch'ol, Smailus (1975) for Acalán, Keller & Luciano G. (1997) for Modern Chontal, Morán (1695) for Colonial Ch'olti', Pérez Martínez (1994) for Modern Ch'orti', and Kaufman (1989) for Proto-Mayan. It is important to stress that Ch'ol does not have an /h/:/j/ distinction, and that the historical evidence shows that the pronouns start with h; henceforth, I use h for all instances of the modern Ch'olan languages that descend from Proto-Ch'olan and Proto-Mayan *h.

Table 5. Kaufman's (1989) Proto-Mayan demonstratives

Person	Demonstrative pronoun
1s	*ha7 + i:n
2s	*ha7 + at
3s	*ha7 + Ø
1p	*ha7 + o7ŋ
2p	*ha7 + ex
3p	*ha7 + eb'

Table 6. Demonstrative/pronoun data from Ch'olan sources

	Ch'ol	Acalan	Chontal	Ch'olti'	Ch'orti'
1s	jo-n-on	< nadzon >	ka-nde ∼ kä-ne ∼ kä-jin no7on	< natz-en >	ne7en
2s	ja-t-et	–	7a-nde ∼ 7a-ne	< natz-et >	ne7et
3s	jin-i	< hain >	7u-nde ∼ 7u-ne ∼ hin-i ∼ hin-da	< haine > ∼ < ne > ∼ < e >	ja7ax
1pi	jo-n-on la	–	ka-nde-la ∼ no7on-la	< natz-on >	no7on
1px	jo-n-on l(aj)-on	–	ka-nde-t'ok-op'		
2p	ja-t-et la	–	7a-nde-la	< natz-ox >	no7ox
3p	jin-ob'	< hainob >	7u-nde-lop'	< natz-ob >	ja7(a)x-op'

It would seem that at least two distinct sets of pronouns are present within three of the languages: Chontal, Ch'olti', Ch'orti'. Ch'ol, in contrast, is quite uniform in using only one historical source for its independent pronouns.

3.1. The *nats'-en 'I/me' set

The evidence for the *nats'-en 'I/me' set comes from Colonial Chontal (Acalan), Modern Chontal, Colonial Ch'olti' and Modern Ch'orti'. The Ch'olti' manuscript (Morán 1695) was not consistent in distinguishing orthographically between /ts/ and /ts'/. Thus, < dz > in Acalan Chontal (Smailus 1975), written in a manuscript whose scribe was very consistent, should be weighed more heavily than Ch'olti' < tz >. < dz > stands for /ts'/, and < tz > for /ts/. Chontal only applied this process to the 1st person singular and plural forms, apparently. Or else it once had the other forms but has since lost them. The fact that Ch'olti' has a 3rd person plural form based on *nats'*, likely the positional root of Proto-Ch'olan *nats'*

Table 7. Demonstrative pronoun data for *nats'* forms

	Ch'ol	Acalan	Chontal	Ch'olti'	Ch'orti'
1s		< nadzon >	n-o7on	< natz-en >	n-e7en
2s	–	–	–	< natz-et >	n-e7et
3s	–	–	–	–	–
1pi	_	_	n-o7on-la	< natz-on >	n-o7on
1px	_	_	_		
2p	_	_	_	< natz-ox >	n-o7ox
3p	_	_	_	< natz-ob >	_

'nearby' (Kaufman & Norman (1984: 126), but Ch'orti' does not is interesting: if Robertson (1998) is correct that Ch'olti' evolved into Ch'orti', such a distribution could support his subsequent sugges-tion (Robertson 2002) that the Ch'olti' manuscript may be in a different dialect from the specific Ch'olti' variety or varieties that eventually became modern Ch'orti'. The data are shown in Table 7.

Now for the reconstruction:

1. Given the presence of this set in the two Ch'olan branches (Acalan Chontal and Modern Chontal, and Ch'olti' and Ch'orti'), it is possible that Proto-Ch'olan had these forms.
2. There is a problem, however:
   (i) Should we assume that Proto-Ch'olan had a set like that of Ch'olti'—fully productive except for the 3rd person singular • and that the other languages have since lost most of the forms?
   (ii) Or should we assume instead that Chontal more closely reflects the original state of affairs in Proto-Ch'olan, and that it was Proto-Eastern Ch'olan, subsequent to the Proto-Ch'olan breakup, that developed a more productive para-digm?
3. For now, the safest hypothesis is that Proto-Ch'olan had *nats'-en* 'I; I am nearby', and possibly *nats'-o7n* 'We; We are nearby', and therefore that Proto-Eastern Ch'olan subsequently developed the more productive paradigm seen in Ch'olti'. This would be a result, whatever the extent of its productivity and range, of grammaticalisation based on a positional root and the use of the absolute person-agreement markers.

3.2. The *ha7- set

There are three subsets of independent pronouns based on the pronoun base *ha7- that descends from Proto-Mayan: two subsets

based on data from extant Ch'olan languages, or three subsets if Classic Ch'olan data are incorporated. I will describe and analyse the data in the following order: the *ha7in form first, the *hin form second, and the *ha7 form third.

3.2.1. The *ha7in- subset

All four languages have retained the 3rd person singular and plural forms based on the demonstrative/pronoun base *ha7 from Proto-Mayan. The Acalan and Ch'olti' forms support Kaufman and Norman's (1984: 139) reconstruction as *ha7-in 'this, that' for the demonstrative/pronoun base. However, the second part of Proto-Ch'olan *ha7-in must not be confused with the second part of the Proto-Mayan form *ha7-iin, for they most likely have different sources. The former was a demonstrative enclitic *+in ~ *+il 'neutral demonstrative' of Proto-Mayan, according to Kaufman (1989), while the latter was the 1st person singular absolutive suffix of Proto-Mayan. Evidence in favour of Kaufman's analysis is presented below with regard to the Tzeltalan pronouns and demonstratives. Thus, the Proto-Ch'olan pronoun base reconstructed by Kaufman and Norman (1984) for Proto-Ch'olan exhibits an incorporated enclitic demonstrative – not a reflex of Proto-Mayan *-iin '1sABS'. The pronoun base for Proto-Ch'olan is therefore *ha7in-, and assuming uniformity throughout the paradigm, through internal reconstruction, the subset in Table 8a is obtained.

Both Pre-Western Ch'olan and Pre-Eastern Ch'olan likely inherited this basic subset, and in fact, as shown below, it can be assumed that Proto-Western Ch'olan retained such a set as that in Table 8(b). However, by Proto-Eastern Ch'olan times the situation regarding Eastern Ch'olan becomes uncertain; only through the

Table 8. Reconstructions of Ch'olan *ha7in- forms

Proto-Ch'olan	Proto-Western Ch'olan	Proto-Eastern Ch'olan
*ha7in-en + ENCL	*ha7in-en + ENCL	?*ha7in-en + ENCL
*ha7in-et + ENCL	*ha7in-et + ENCL	?*ha7in-et + ENCL
*ha7in-Ø + ENCL	*ha7in-Ø + ENCL	*ha7in-Ø + ENCL
*ha7in-o7n + ENCL	*ha7in-o7n + ENCL	?*ha7in-o7n + ENCL
*ha7in-ix + ENCL	*ha7in-ix + ENCL	?*ha7in-ix + ENCL
*ha7in-o7b' + ENCL	*ha7in-o7b' + ENCL	?*ha7in-o7b' + ENCL
a	**b**	**c**

assumption of uniformity necessary for internal reconstruction could one assume a paradigm based exclusively on the base *ha7in (Table 8c), for, as shown earlier, Ch'olti' and Ch'orti' provide explicit evidence for the survival of such base in Proto-Eastern Ch'olan only with 3rd person pronouns (3s and 3p for Ch'orti', 3s for Ch'olti'), since for the other persons both languages exhibit members of the *nats'-ABS set (Table 7).

The Proto-Western Ch'olan system can be reconstructed in more detail than that proposed in Table 8(b), as shown in Table 9. Kaufman (1989) has observed that the *la* particle of Ch'ol *honon la* is based on Proto-Ch'olan-Tzeltalan *laj* 'complete; all', which clearly became grammaticalised in this context. Recently, Nicholas Hopkins (pers. comm. 6 Dec. 2006) offered the same analysis. This form, *honon la*, is clearly based on an earlier form *ha7in-o7n laj*, which in Ch'ol and Chontal would have become *hin-o7n laj*; then, through vowel assimilation within the pronoun, deletion of the glottal stop of *-o7on*, and deletion of the final velar fricative of *laj*, the end result would be *honon la*, as attested in Ch'ol. Such a development may have been an independent development of Ch'ol and Chontal, or else it took place at the Proto-Western Ch'olan level but was followed by significant changes in Chontal which obscured or obliterated such a relationship with Ch'ol. An inclusive/exclusive contrast developed as a result of the presence or absence of *-o7n* '1sABS' after the particle *laj* (Table 9).

At this point it is useful to assess new data from Colonial Ch'ol recently described by Hopkins, Guzmán & Josserand (2008) (Table 10).

Those authors state (Hopkins et al. 2008):

> From a modern viewpoint, the second, fourth, and sixth forms (/joñoñ, jat^{y}et^y, jat^{y}et^y laj/) are the normal pronouns, the pronoun base plus the absolutive suffixes /-oñ/ 'I' and /-et^y/

Table 9. Reconstructions of Western Ch'olan *ha7in-* forms

	Proto-Western Ch'olan
1s	*ha7in-**o(7)n** + ENCL
2s	*ha7in-et + ENCL
3s	*ha7in-Ø + ENCL
1p	*ha7in-**o(7)n** + ENCL + **laj-o(7)n**
2p	*ha7in-**et** + ENCL + **laj-et**
3p	*ha7in-o(7)b' + ENCL

Table 10. Data for Colonial Ch'ol by Hopkins et al. (2008)

< Jonuch >	joñäch	*yo soy*	'I (am)'
< Jonon >	joñoñ	*yo*	'I'
< Jatuch >	jatäch	*tú eres*	'you (are)'
< Jatet >	jat^{y}et^y	*tú*	'you'
< Jonon la Jon >	joñoñ lajoñ	*nosotros*	'we (exclusive)'
< Jatet la >	jat^{y}et^y laj	*vosotros*	'you all'

> 'you' (with the bases /joñ-/ and /jat^y-/ probably deriving from earlier **ja'-oñ* and **ja'-et^y*).

Thus, these authors analyze *hatet* as originating in an earlier form **ha7-et* to which another -*et* '2sABS' was added.[6] This is probably correct in part, but not necessarily as far as the form of the base before the second -*et* was added. John Robertson (pers. comm. 3 and 7 Dec. 2006) has suggested that the original form was in fact **ha7-at*, which eventually became contracted upon the addition of -*et* to *ha7t-et*. It is not difficult to find support for Robertson's suggestion. In Ch'ol and Chontal, vowel assimilation between the vowel of a root and the vowel of a following suffix often goes from suffix to root. This is apparent in the presumed development of the base *hon-* from **ha7-o7n*, and, as discussed below, of the base *hin-* from **ha7-in*, for example.[7] In the case at hand – the Ch'ol pronoun *hatet* – it is the first pattern that is at work elsewhere in the pronoun system, as seen in *hini* 's/he/it' from **ha7+in+i* and in *honon* 'I/we' from **ha7+in+o7n*. Thus, it is assumed here that such direction would have also affected the 2nd person forms, which

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[6]I have chosen not to use the superscript < y > for *t^y*, or the diacritical tilde, < ∼ > of *ñ*, since in Ch'ol /t/ and /n/ in general are palatalized, and thus this is not a distinctive feature of such sounds (Nicholas Hopkins, pers. comm., 2005).

[7]There are many examples in Western Ch'olan where the vowel of a -*VC* suffix influences the vowel of a preceding syllable – whether of a root or preceding suffix. In Eastern Ch'olan the opposite direction of assimilation often seems to be at work. For example: **b'äk'-et* 'flesh, body', with Chontal *b'ek'et* and Ch'orti' *b'ak'at*. The first pattern is perhaps the more common historically. For example, Proto-Mayan **k'iwex* 'soursop' became **k'ewex* in Proto-Ch'olan. But both patterns are inherited, as in Proto-Ch'olan **winik* 'man' from Proto-Mayan **winaq*. (It is possible, nonetheless, that some of these examples may be the result of influence from the vowel of a following suffix. Thus, *winik* typically takes an inflectional or derivational suffix -*il* that could have influenced the form of the preceding vowel: ***winak-il* > **winik-il*. For this reason much research remains to be done on the patterns of vowel assimilation in the Ch'olan languages.

would lead us to the following hypothesis, if we followed the patterns evident in the *hini* and *honon* forms, namely, *henet* < *hin-et* < **ha7in-et*, or *hetet* < *ha7et-et* < **ha7-et*. Here, though, we find *hatet*, which more than likely originated instead in **ha7-at*, resulting in *hat-*, followed by the addition of *-et*, as suggested by Robertson. The suffix **-at* is the '2sABS' of Proto-Ch'olan, and thus the form *hatet* of Ch'ol may very well preserve evidence of the former presence of this form in Western Ch'olan, as noted by Robertson.

Below the evidence for the reconstruction of deictic enclitics in Proto-Ch'olan is discussed in association with the **hin-* pronoun base. At this point it is only necessary to say a few words about shared innovations between Western Ch'olan and Tzeltalan. In particular, Western Ch'olan and Tzeltalan, through a process of language contact, innovated the extension of 1st person plural ergative markers, Proto-Ch'olan **k(a)-*, to 1st person singular. In Western Ch'olan this meant the disappearance of Proto-Ch'olan **in(w)-* (Kaufman & Norman 1984) or **n(V)-* ∼ **w-* (Kaufman 1989) or **ni-* ∼ **w-* (Mora-Marín 2001; 2003; 2004a, b) '1sERG'.[8] The same happened in Western Ch'olan with the absolutive markers: Proto-Ch'olan **-en* '1sABS' was ejected in favor of **-o7n* '1pABS'. This extension then resulted in a reanalysis of the 1st person singular as the prototypical use of **-o7n*, resulting in **-o7n* '1sABS', for the languages then innovated the addition of **laj* 'complete; all' to distinguish the plural (*honon la*) from the singular (*honon*) form. In the process, more than one way of expressing the 1st person plural emerged in Pre-Ch'ol (**honon la* versus **honon lajon*) and possibly Proto-Western Ch'olan, and this allowed for the emergence of an inclusive/exclusive distinction, present today in both Ch'ol and Chontal.

3.2.2. The **hin* subset

In addition to the Proto-Ch'olan pronoun base **ha7in-*, to which the absolutive person-agreement marker and a deictic enclitic would

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[8] In point of fact, my suggestion of a form **ni-* ∼ **w-* '1sERG' is based on Kaufman's (pers. comm. 1999) suggestion following a brief discussion between that scholar and the author of this paper on the implications of the use of T116 **ni** to spell the '1sERG' in Classic Mayan texts. Wichmann (2002) offers a detailed analysis of this person-agreement marker, but arrives at different conclusions.

Table 11. Demonstrative pronoun data for *ha7-, ha7in-* and *hin-* forms

	Ch'ol	Acalan	Chontal	Ch'olti'	Ch'orti'
1s	jo-n-on	–	ka-nde ∼ kä-ne ∼ kä-jin	–	–
2s	ja-t-et	–	7a-nde ∼ 7a-ne	–	–
3s	jin-i	< hain >	7u-nde ∼ 7u-ne ∼ hin-i ∼ hin-da	< haine > ∼ < ne > ∼ < e >	ja7ax
1p inclusive	jo-n-on la	–	ka-nde-la	–	–
1p exclusive	jo-n-on l(aj)-on	–	ka-nde-t'ok-op'		
2p	ja-t-et la	–	7a-nde-la	–	–
3p	jin-ob'	< hainob >	7u-nde-lop'	–	ja7(a)x-op'

be added, it is possible to reconstruct a pronoun base **hin-* that was the result of further phonetic reduction of the Proto-Ch'olan pronoun base **ha7in*, only this time the reconstruction can only be traced to Proto-Western Ch'olan. In other words, the form **hin-*, from Proto-Ch'olan **ha7in-*, is a Western Ch'olan innovation. The relevant data are seen in Table 11.

The form in question is only attested for Ch'ol and Chontal, as well as in Classic Lowland Mayan texts, particularly during the Late Classic period (AD 600-900), in spellings such as **hi-ni** and **hi-na**, discussed in more detail below.[9] On the basis of data from the extant languages, it is possible to provide a reconstruction for Pre-Western Ch'olan and Pre-Ch'ol as in Table 12. The Chontal data is discussed in a separate section in more detail: drastic change in Chontal has likely obscured or even obliterated much of the development of these forms, and thus for some of these only a Pre-Ch'ol reconstruction can be confidently proposed.

The Pre-Western Ch'olan form *?*hen-et* from an earlier **hin-et +* *ENCL* is only plausible if one assumes it not to be the only form, but instead a variant, in addition to the form **ha7in-et + ENCL* already posited for Proto-Ch'olan and Proto-Western Ch'olan (see above), and in addition to the form **ha7-et + ENCL* posited for Pre- and Proto-Ch'olan (see below), though one exhibiting Yucatecan influence (i.e. *+ at* '2sABS' > *+ et*). This **hen-et* form, if it existed as a

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[9]Mayanists use bold letters to represent signs with known lexical and phonological values: capital letters are used for logograms, bold lower-case letters for syllabograms.

Table 12. Western Ch'olan *hin-* forms (reconstructions)

Pre-Western Ch'olan	Pre-Ch'ol
*hin-o(7)n + ENCL > *hon-o(7)n (Pre-Ch'ol)	*hin-o(7)n + ENCL > *hon-o(7)n
*hin-et + ENCL > ?*hen-et (possible)	*ha[7-a]t-et + ENCL > *hatet
*hin-Ø + ENCL > *hin-Ø	*hin-Ø + ENCL > *hin-Ø
*hin-o(7)n + ENCL > *hon-o(7)n laj-o(7)n 'we all'	*hin-o(7)n + ENCL > *hon-o(7)n laj(-o(7)n) 'we all'
*hin-ix + ENCL > ?*hin-ix	*ha[7-a]t-et + ENCL > *hatet laj
*hin-o(7)b' + ENCL > *hin-o(7)b'	*hin-o(7)b' + ENCL > *hin-o(7)b'
a	b

variant, did not persist. It is a hypothesis based on the overall system. Pre-Ch'ol does not support its persistence, and instead must have exhibited a 'mixed' system, showing some forms based on the contracted *hin-* demonstratives, and other forms based on the uncontracted *ha7-* demonstratives.

And now for the reconstruction considerations:

1. Ch'ol and Chontal both have *hini* for '3sPRO'. More specifically, the Chontal data suggest that *hini* is actually *hin + i* 3sPRO + ENCL 'that one; s/he/it (there)', given the apparent contrast with *hinda* or *hin + da* 3sPRO + ENCL 'this one; s/he/it (here)'. The enclitics + *i*, + *da*, and + *e* ~ + *de* are further discussed below. This pronoun form can be easily reconstructed as derived from *ha7in-* through phonetic reduction: **h[a7]in- > *hin-*. In Ch'ol, vowel assimilation has taken effect for the 1st person singular and plural markers: **ha7in-o7n > (*h[a7]in-o7n >) *hin-o7n > hon-o7n*. This did not happen in Chontal, which retains the base *hin-* in the form *kä-hin* for '1sPRO', and thus it is more likely that Proto-Western Ch'olan had *hin-o7n* '1sPRO' than *hon-o7n*. In other words, *hon-o7n* may be an exclusively Ch'ol form.

2. The 2nd person markers of Ch'ol, *hatet* and *hatet laj*, have not undergone assimilation to the vowel of a following absolutive person marker, *-et*, unlike the first person pronouns. If one assumes uniformity in the paradigm – i.e. that such assimilation would have taken place, given the opportunity – we would have to suggest that some sort of block was in place to prevent it, or that the evidence for such a hypothetical form exhibiting assimilation has been obliterated. Uniformity – of

the sort assumed for internal reconstruction purposes – would lead one to reconstruct *hin-et '2sPRO' and *hin-ix '2pPRO' for Pre-Western Ch'olan, or *hen-et and *hen-et laj for Pre-Ch'ol, if one assumes vowel assimilation parallel to that seen in forms like *hon-o7n and *hon-o7n laj for Pre-Ch'ol as well. However, Ch'ol exhibits *hatet*, the only member of its demonstrative-pronoun paradigm that is not of the general form /hVn-ABS/.

3. The first clue to what has happened is found outside of Ch'ol, in the Chontal form *kähin*, decomposable into *kä-* '2sERG/-POSS' and *hin-* 'pronoun base'. In this Chontal form, the base *hin-* suggests that Proto-Western Ch'olan '2sPRO' was in fact based on *hin-, and that it was Pre-Ch'ol that diverged, using instead *hatet*.

4. The second clue is of course that Ch'ol *honon* almost certainly comes from *h[a7]in-o7n*, as already observed. Thus, presumably, Proto-Western Ch'olan went through a period of time when it had *hin-o7n, *hin-et, *hin-Ø, *hin-o7n laj, *hin-ix and *hin-o7b'. Subsequently, Pre-Ch'ol may have undergone further changes that led to a system such as the following: *hon-o7n, *hen-et, *hin-Ø, *hon-o7n laj, *hin-ix and *hin-o7b'. Then, additional changes took place: the forms *hatet* and *hatet la* intruded from a related subset of pronouns, either a set of restricted archaisms, or a set of sociolinguistically differentiated allomorphs, replacing the hypothetical forms *hen-et and *hin-ix with the precursors to the modern forms *hatet* and *hatet la*. What must be invoked here is the existence of two morphologically related sets of pronouns: the first was based on the Proto-Western Ch'olan pronoun base *hin- that resulted from the contraction of Proto-Ch'olan *ha7in-; and the second was based on the pronoun base *ha7- that was inherited from Proto-Mayan, by itself, without enclitics, requiring in turn that Proto-Ch'olan had two distinct – but lexically related – pronoun bases, *ha7in- and *ha7-. It is this second form that led to *hatet* and *hatet la* in Modern Ch'ol, through a process such as the following, as suggested by John Roberston (pers. comm. 7 Dec. 2006): Pre-Ch'olan *ha7-at > Proto-Ch'olan *ha7-at-et > Pre-Ch'ol *ha[7-a]t-et > Ch'ol *hatet*. That the ultimate source was *ha7-at > *ha[7-a]t-et, and not, say, *ha7-et > *ha[7-e]t-et, is assumed on the basis

of the overall history of the absolutive suffixes: the Proto-Ch'olan-Tzeltalan form *-*at* was generally replaced by *-*et* by Proto-Ch'olan times, making it seem reasonable that a form **ha7-at* would become unanalysable, and therefore perceived as *ha7at*, followed by the process of vowel reduction upon the addition of a suffix, **ha7at-et* > *ha7t-et*, and ultimately to the process of preconsonantal glottal stop deletion, *ha7t-et* > *hatet*.

5. This derivation requires that Pre- and Proto-Ch'olan preserved the Proto-Mayan pronoun base *ha7-* intact, at least for some of the grammatical persons, in this case specifically the 2nd person. Additional evidence for this claim is found in Ch'orti' forms such as *ha7ax* '3sPRO', as well as in Classic Lowland Mayan texts, both discussed further in section 3.2.3. Thus, it is claimed here that in Modern Ch'ol the form *hatet* is really an intrusion from a related subset, defined below as the *ha7* Subset Proper.

Lastly, the *hin-* base is attested in Classic Lowland Mayan texts, spelled **hi-ni** (Figure 3a) or **hi-na** (Figure 3b).

These forms are rather late, occurring on Late Classic vases (e.g. K1398, K1440, K4113); one of them (K1398) from the Naranjo area, while the other (K4113) a Codex Style vase from the Nakbe region. These are most definitely not the standard spellings for the '3sPRO'; the standard forms, spelled **ha-7i** and **ha-7a**, respectively, are discussed and illustrated below. Instead, these are rare and rather late innovations attested exclusively on a handful of painted
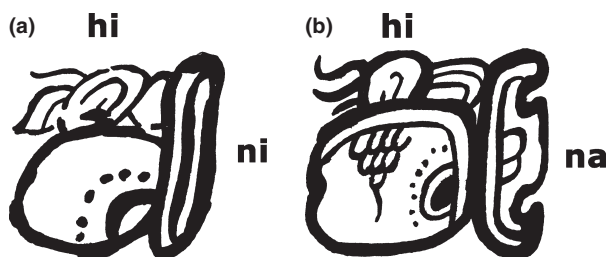

Figure 3. (a) Spelling **hi-ni** from pottery vessel 4113 in Justin Kerr's Maya Vase Archive. (b) Spelling **hi-na** from pottery vessel 1398 in Justin Kerr's Maya Vase Archive (http://research.famsi.org/kerr maya.html).

pottery vessels. The standard forms, in contrast, are the forms found in a broad range of media, such as large stone monuments and small jade pendants. Mora-Marín (2004a) in fact proposes that the forms **hi-ni** and **hi-na** could be suggestive of the Proto-Western Ch'olan innovation of *hin-.

3.2.3. The *ha7- subset proper

There is evidence from the modern Ch'olan languages and from Classic Lowland Mayan texts that Pre- and Proto-Ch'olan preserved the Proto-Mayan pronoun base *ha7- intact, without the incorporation of a previously functional enclitic +in, at least in some contexts of use. For one, Ch'ol exhibits the form *hatet*, which can be analysed as ultimately derived from *ha[7-a]t-et*, as suggested recently by John Robertson (pers. comm. 7 Dec. 2006), and Ch'orti' exhibits the form *ha7ax*, which can be analyzed as derived from *ha7-*, and a second part, -ax, discussed further below. In addition, ancient Mayan hieroglyphs exhibit abundant evidence for such a form in syllabographic spellings of the forms **ha-7i** and **ha-7a**, both for '3sPRO', as well as **ha-7o-b'a** and **ha-7o-b'o**, both for '3pPRO'.[10] The first two forms, shown in Figure 4, can be analysed as consisting of the base *ha7-*, followed by -Ø '3sABS', followed – in this author's opinion – by a deictic enclitic, +i or +a, respectively. The second two forms can be analysed as consisting of the base *ha7-*, followed by -o(7)b' '3pABS', followed – in this author's opinion – by a deictic enclitic, +a or +o, respectively. These enclitics are discussed further below.

Going back to Ch'orti' *ha7ax* '3sPRO' and *ha7x-o7b'* '3pPRO', it is in fact possible to determine the origin of the second component, -ax, from an analysis of modern Ch'orti' data seen in Table 13, particularly if we pay close attention to the distal and proximal particles, *ya7x* and *ira*, respectively.

These data are likely indicative of the type of process that gave rise to the Ch'orti' forms *ha7ax* and *ha7ax-o7b'*. First, note how the

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[10]Such spellings and their general meaning were first discovered by epigraphers Nikolai Grube and Werner Nahm during the early 1990s, although to my knowledge their work on these matters has not been published. Nevertheless, the authors analyse the expressions as **ha-7(i)** and **ha-7(a)**, and thus both as *ha7*, assuming that the vowel of the second syllabogram is silent. In this paper it is hypothesized that these vowels spell the deictic enclitics +i and +a, respectively.
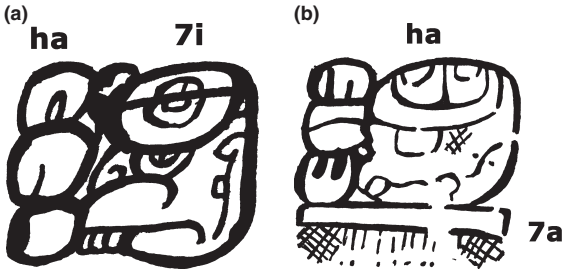
Figure 4. (a) Spelling **ha-7i** from pottery vessel 1440 in Justin Kerr's Maya Vase Archive (http://research.famsi.org/kerrmaya.html). (b) Spelling **ha-7a** from Caracol Ball Court Marker III. Drawing by Nikolai Grube.

Table 13. Ch'orti' data for *e … ya7x* and *e … ira* frames

Clitic frame	Examples
e … ya7x	a. E te7 ya7x nik'-em (MOC 2000: 61)[11]
	DET tree THERE cross-PARTC
	'That tree is in the way.'
	b. E jinaj ya7x ti-ka-b'a (MOC 2000: 145)
	DET milpa THERE PREP-1pERG-DAT
	'That milpa is ours.'
e … ira	c. E tz'i7 ira u-chuk-i i = kojt b'oyom (MOC 2000: 19)
	DET dog HERE 3sERG-seize-PL one-CL tepezcuintle
	'This dog caught a tepezcuintle.'
	d. E-7ra ja7x in = te7 noj jun (MOC 2000: 29)
	DET-HERE 3sPRO one = CL big book
	'This is a big book.'

article or determiner, *e*, can function as the opening particle of a bipartite deictic construction, *e... ya7x* or *e... ira*. Second, note how, at least for the second framing construction, if no noun intervenes one may get a contracted form *e7ra*, made up of *e* and *ira* – the coalescence of two vowels in Ch'orti' typically results in a *V7* sequence. It is my opinion that *ha7ax* likely originated in a form *ha7-Ø … ya7x* that was contracted to *ha7-ya7x*, and eventually to *ha7ax*. Evidence for this type of process is provided in section 3.5. Interestingly, Ch'orti' *ira* 'proximal deictic' is most likely originally

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[11]MOC stands for *Morwar Ojroner Ch'orti'* (2000) 'Ch'orti' Linguistic Community'.

ila, prior to the exclusive Ch'orti' shift of **l > r*; in fact, Kaufman & Norman (1984: 139) reconstruct **ila(-i)* 'this' to Proto-Ch'olan.

3.3. Some general considerations

In Classic Lowland Mayan texts, it was the **ha7-* pronoun base that was used as the standard form, present in all inscribed media, from the beginning of the Early Classic period through the end of the Late Classic period (AD 200–900). Because it is the most conservative form of the three bases (**ha7-*, **ha7in-*, **hin-*), being reconstructible to Proto-Mayan, and because of its standard distribution, one can argue that it was the most formal or prestigious pronoun base. Thus, it differs significantly from the innovative form **hin-*, attested *only* in a handful of painted pottery vessels from the same general region and from the Late Classic period. Such pottery vessels do not appear to have been of wide public circulation, and certainly not the objects of official, public display. Thus, the form **hin-* was likely not a very formal, official usage. Overall, then, it would seem that the variation between the **ha7-* and **hin-* pronoun bases could have manifested itself as a result of a major sociolinguistic factor: differences in register, possibly as a result of formality or 'officiality' of the register. Interestingly, so far there is no known attestation either of the **ha7in-* pronoun base or of the unrelated **nats'-* pronoun base. It is possible that neither of these was considered appropriate for written discourse. At the same time, the fact that **hin-* is attested, even though it was most likely derived from the pronoun base **ha7in-*, may require a somewhat creative explanation, one that will not be attempted at this point. But in any case, the results so far allow us to entertain other related issues.

4. RELATED PROBLEMS

4.1. The deictic enclitics

There is evidence for the Proto-Ch'olan survival of the enclitic system reconstructed for Proto-Mayan (Table 4), particularly in the data from modern Chontal (Table 9). There is sufficient contextual

Table 14. Data for Modern Chontal deictic enclitics

Demonstratives	Examples
a. *hain-**e** > n-**e** ∼ n-**de**	
b. *hin-**a** > hin-**a** ∼ hin-**da** > hin-**da**	i. ni kä cuch + **da** 'my cargo [here]'
	ii. hin + da 'this one'
	iii. hin + da + hob 'these ones'
	iv. hin + da winik 'this one, man'
	v. hin + i winik + da 'this man'
a. *hin + i > hin + **i**	i. hin + i 'that one'
	ii. hin + i + hob 'those ones'
	iii. hin + i winik + da 'this man'

data to determine that modern Chontal + *da* has a deictic function.[12] Paradigmatically it seems to be opposed to + *e* ∼ + *de*, on the one hand, and -*i*, on the other.[13] Schumann (1978: 97) and Keller and Luciano (1997: 439) define *hini* as 'that one' and *hinda* as 'this one', for example. Also, as seen in Table 14b, + *da* can be added to nouns in general, not just pronouns, in order to convey proximity. In fact, the terms *wi + da* and *ya7 + i* for 'here' and 'there', respectively, exhibit the enclitics + *da* and + *i*.

The apparent paradigmatic relationship between + *i*, + *da*, and + *e* ∼ + *de* would suggest a generalised deictic enclitic shape of the form * + *V* (without the innovative, phonetic *d*) in Pre-Chontal, and thus favouring a reconstruction in line with Proto-Mayan's deictic enclitics, such as * + *i*, * + *a* and * + *e*. Kaufman and Norman (1984: 139), for their part, have in fact reconstructed *-*i* 'enclitic; relatively near to speaker' and *-*e* 'enclitic; relatively far from speaker' to Proto-Ch'olan, the former based on Ch'olti' data and the latter on Chontal data, but the authors do not provide examples or further explanation. Thus, for now, sufficient data are currently lacking to determine the full range of functions and meanings of these enclitics, although it is possible to say that it is the Modern Chontal data that provide us with the most direct evidence of paradigmatic

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[12]It is not claimed here that *d* is a phoneme /d/ of Chontal. It is a phoneme in Spanish loanwords, where one might find also /g/, for example, but not in general in native Chontal words. In the case of the + *da* and + *de* enclitics discussed here, its origin is not clear (possibly a result of excrescence influenced by the preceding alveolar nasal of the base *hin-*), but such an origin is in any case relatively recent, postdating the Acalan manuscripts of 1610–12 (Smailus 1975), which lack evidence for it

[13]No evidence exists so far for + *i* ∼ + *di* variants, although the possibility cannot be discarded, given the forms + *e* ∼ + *de*.

relationships among these enclitics and their meanings. Knowles (1984: 233–6) describes +*i* and +*da* as phrase-terminal markers, together with +*b'a*. Given the data above (Table 14), it seems that +*i* and +*da* have contrastive functions, although Knowles (1984: 236) provides examples where they are used together within the same phrase, suggesting that they may have different functions in Modern Chontal, and that it is necessary to study these markers in much more detail. I will put forth the hypothesis that these are in fact reflexes of the Proto-Mayan deictic enclitics reconstructed by Kaufman (1989), and that their presence in Modern Chontal would make them inevitably present in Proto-Ch'olan-Tzeltalan and Proto-Ch'olan. If so, and assuming that the *d* of +*da* and +*de* is an innovation (an example of excrescence, or of analogical levelling following the model by +*b'a* 'phrase terminal particle'), as suggested by internal dialectal variation, i.e. +*e* ~ +*de* in forms such as *7a-n*+*e* ~ *7a-n*+*de* '2sPRO', the tentative reconstruction shown in Table 15 can be posited.

These enclitics seem to be present in Classic Lowland Mayan texts: **ha-7i** may represent *ha7-Ø*+*i* 'that one', and **ha-7a** may represent *ha7-Ø*+*a* 'this one', pending future research to test this idea. For its part, Ch'ol has lost the productive use of such enclitics. Thus, in Modern Ch'ol *hini* can mean both 'this one' and 'that one'.

4.2. The Chontal case: further innovations

Chontal exhibits significant dialectal variation in its pronouns, and significant departures with respect to Proto-Ch'olan and Proto-Western Ch'olan. The more interesting departure is the innovative use of ergative markers (Table 16) as possessors of the pronoun base, -*hin* or -*n*, with no little remaining need for absolutive markers: the second component of the 2p and 3p ergative markers, which used to be a plural absolutive marker (Proto-Western

Table 15. Reconstructible Proto-Ch'olan deictic enclitics

Enclitic	Gloss
+a	'close to speaker'
+i	'relatively close to speaker'
+e	'relatively far from speaker'

Table 16. Modern Chontal ergative person-agreement markers

Person	Agreement marker
1s	ka-
2s	7a-
3s	7u-
1p	ka- … la
2p	7a- … la
3p	7u- … l-op'

Ch'olan *-et '2pABS' and *-o7b' '3pABS'), is now made up of la from *laj 'all', and l-op' from *laj-o7b', respectively.

Chontal also innovated the use of la (< *laj) with the dialectal variant to ka-nde-la '1pPRO', no7on la, from Pre-Chontal *nats'-o7n laj. The Proto-Ch'olan base *ha7in- survives in Chontal as kä-n + de ~ ka-n + e, where -n + de ~ -n + e originate in *hain + e. The Chontal '1pxPRO', ka-nde-t'ok-op' is based on ka-nde plus a contraction of -it'ok 'with', to which -op' (i.e. /-o7b'/) '3sABS/plural' is added. Ch'ol has clearly remained the most conservative, not only preserving the forms based on Proto-Mayan *ha7- as the basis of its pronoun paradigm, but also ignoring the use of *nats'- 'nearby', which Chontal, Ch'olti' and Ch'orti' have exploited.

4.3. The Ch'olan determiners

The Ch'olan pronouns became, eventually, articles – roughly, definite articles. Examples are shown in Table 17.[14]

The forms in question all have something in common: they can be traced to Proto-Ch'olan *ha7in-Ø + ENCL. The Ch'ol and Chontal articles, hini and ni, respectively, are based on Proto-Western Ch'olan *hin + i 's/he/it there; that one', while the Ch'olti' and Ch'orti' forms are based on a Proto-Ch'olan form *ha7in + e, attested in Ch'olti' as < haine >. Interestingly, this pattern shows a Western/Eastern split: Proto-Western Ch'olan can be reconstructed as having had *hini as the definite article, and Eastern Ch'olan as having had *haine ~ ne as the definite article. We can therefore propose that:

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[14]This claim was made already in Mora-Marín (2001; 2003; 2004a, b), but not in as much detail and with as much comparative evidence as in the present paper.

Table 17. Evidence for Ch'olan determiners

Language	Data
Ch'ol	ak'äl **hini** b'ih clean the road 'the road is clean'
Chontal	**ni** kä kuch + da the my cargo + here 'the my cargo [here]'
Ch'olti'	**ne** pa uch'el the food drink 'the food and drink'
Ch'orti'	**e** ik'ar the wind 'the wind'

1. Proto-Ch'olan used *ha7in as an article.
2. Proto-Western Ch'olan used *ha7in-Ø + i ∼ hin-Ø + i:
   (i) Ch'ol grammaticalised the form *h[a7]in + i > hini, while
   (ii) Chontal grammaticalised and reduced the form *h[a7]in + i > ni.
3. Proto-Eastern Ch'olan used *ha7in-Ø + e:
   Ch'olti' and Ch'orti' grammaticalised and reduced the form *ha7ine > ne > e.

Tzotzil uses li ∼ le, depending on the dialect, as the definite article; and it also uses le7e 'that one' and li7i ∼ li7e 'this one' as the deictic particles that can also function independently as pronouns – in addition to the pronoun set discussed below. Tzeltal uses te7e (te7...e) as the definite article, and li7i (li7...i) 'here' and teya (tey...a) 'there' as deictic particles. Furthermore, Tzeltal has a contrastive set worthy of attention in relation to the Proto-Ch'olan pronoun *ha7in (see Table 18).

This is precisely where one would expect to see the origin of the grammaticalised Proto-Ch'olan *ha7in. Tzeltal shows the use of ha7 ini and ha7 ine as contrastive forms, hence ha7 in + i and ha7 in + e; furthermore, it seemingly contrasts ha7 in with forms like ha7 te

Table 18. Data for Tzeltal deictic pronouns (Slocum, Gerdel & Aguilar 1999)

Demonstrative with deictic enclitic	Example
ha7 + in + i 'éste, ésta '(this one here)'	ha7 winik + in + i 'this man'
ha7 + in + e 'ése, ésa (that one there)'	ha7 winik + in + e 'that man'

'that one', hence *ha7 + in* and *ha7 + te*, although the contrast between these two is not immediately obvious from their identical translation 'ése, ésa' in Slocum et al. (1999: 41). In any case, it is possible to propose that Proto-Ch'olan-Tzeltalan may have had a frame similar to the one in Tzeltal, **ha7 + in(+ ENCL)* ∼ **ha7... + in(+ ENCL)*, one that ultimately became reanalysed in Proto-Ch'olan as an unanalysable base **ha7in*. It is apparently the enclitic *+ in* that Kaufman (1989) defines as a neutral demonstrative reconstructible to Proto-Mayan. These data from Tzeltal show clear parallels with the proposed origin of Ch'orti' *ha7ax*, discussed earlier, and lend further support to that reconstruction.

It is interesting to note that the determiners or articles, *hini* and *ni* for Western Ch'olan and *ne* and *e* for Eastern Ch'olan, bear evidence of the reconstructed Proto-Ch'olan deictic enclitics *+ i* 'relatively close to speaker' and *+ e* 'relatively far from speaker'. This result is not surprising, for pronouns often refer to entities that are not immediately present among the speakers. Consequently, it would be surprising if any of these pronouns had grammaticalised the use of *+ a* 'close to speaker'.

4.4. *The Tzeltalan pronouns*

The following data for Tzeltal and Tzotzil (Table 19) are from Kaufman (1989c: 76). They allow for the Proto-Tzeltalan reconstructions by Kaufman (1971: 102–3) shown here; and, assuming paradigmatic uniformity in a preceding historical stage as well as applying forward reconstruction based on the Proto-Mayan reconstructions by Kaufman (1989c: 75) mentioned before, they allow for the Pre-Tzeltalan forms also shown here.

The Pre-Tzeltalan '1sPRO', **ha7-in*, is of uncertain reconstruction, as discussed further in section 3.7.

Table 19. Tzeltalan demonstratives/pronouns (Kaufman 1989)

Person	Tzeltal	Tzotzil	Proto-Tzeltalan	Pre-Tzeltalan
1s	ho7-on	ho7-on	*ho7-on	*ha7-in(?)
2s	ha7-at	ho7-ot	*hä7-ät	*ha7-at
3s	ha7	ha7	*ha7	*ha7
1p	ho7-o-tik	ho7-o-tik	*ho7-o-tik	*ha7-o-tik
2p	ha7-ex	ho7-ox-uk	*ha7-ex ∼ *ho7-ox	*ha7-ex
3p	ha7-ik	ha7-ik	*ha7-ik	*ha7-ik

4.5. The Ch'olan-Tzeltalan pronouns

It is now possible to posit reconstructions for Pre- and Proto-Ch'olan-Tzeltalan, as in Table 20. Kaufman (1989c: 21) reconstructs *-in '1sABS' for Proto-Ch'olan-Tzeltalan (his Proto-Greater Tzeltalan). The reason is probably, at least in part, the following. Tzeltalan can be reconstructed with *-on, and Ch'olan with *-en, and thus it is not possible to simply choose between these two to reconstruct a form for Ch'olan-Tzeltalan. Instead, other factors must be brought to bear: Proto-Ch'olan likely borrowed *-en from Yucatecan, and thus prior to this loan the simplest assumption is that Proto-Mayan *-iin had been retained. Also, Tzeltalan and Western Ch'olan likely innovated the form *-on through contact subsequent to the breakup of Proto-Ch'olan. Consequently, *-on is innovative and postdates the Proto-Ch'olan-Tzeltalan period. I would only revise Kaufman's reconstruction of *-in to suggest that the vowel may have remained long, as *-iin, in Proto-Ch'olan-Tzeltalan, since the evidence from the Ch'olan loanwords in Yucatecan suggests that Pre-Ch'olan still retained phonemic vowel length, which means that Proto-Ch'olan-Tzeltalan would have done so as well.

Proto-Ch'olan-Tzeltalan probably underwent the Ch'olan-Tzeltalan shift of *N > n, and for that reason the Proto-Ch'olan-Tzeltalan reflex of Proto-Mayan *ha7-o7ŋ is reconstructed as *ha7-o7n. However, Pre-Ch'olan-Tzeltalan had yet to undergo that shift, as suggested by evidence adduced by Kaufman (1976: 110), who has noted that the reflex of Proto-Mayan *koŋ 'to sell' in Koteke and Jakaltek, chNo, is probably a loan from Ch'olan-Tzeltalan, for it exhibits the Ch'olan-Tzeltalan *k > ch shift, but retains the N of Proto-Mayan *koN, indicating the borrowing took place prior to the

Table 20. Demonstrative pronouns for Ch'olan-Tzeltalan

	Pre-Ch'olan	Proto-Tzeltalan	Proto-Ch'olan-Tzeltalan	Pre-Ch'olan-Tzeltalan	Proto-Mayan
1s	*ha7-en	*ho7-on	*ha7-iin	*ha7-iin	**ha7-iin
2s	*ha7-et	*hä7-ät	*ha7-at	*ha7-at	**ha7-at
3s	*ha7	*ha7	*ha7	*ha7	**ha7
1p	*ha7-o7n	*ho7-o-tik	*ha7-o7n	*ha7-o7ŋ	**ha7-o7ŋ
2p	*ha7-ix	*ha7-ex ~ *ho7-ox	*ha7-ex	*ha7-ex	**ha7-ex
3p	*ha7-o7b	*ha7-ik	*ha7-eb'	*ha7-eb'	**ha7-eb'

Ch'olan-Tzeltalan *ŋ > *n* shift – and, as also pointed out by Kaufman, that the Ch'olan-Tzeltalan *k > ch* shift preceded the *ŋ > *n* shift. As far as Proto-Tzeltalan is concerned, it would seem that Proto-Ch'olan-Tzeltalan *-o7n* in the '1pPRO' was reduced to *-o*, which was followed immediately by the plural/collectiviser marker *-tik*, probably related to Proto-Tzeltalan *-tik* 'collectiviser/ locativiser of unpossessed nouns', *-etik* 'pluraliser of unpossessed nouns', and *-atak ∼ *-tak* 'pluraliser of unpossessed nouns' (Kaufman 1971: 149). This is a similar, if not parallel, process to that in Proto-Western Ch'olan, in which *-o7n*, previously '1pABS', was reanalysed as both '1sABS' and '1pABS', followed by the addition of *laj* 'all' after *-o7n* to disambiguate between *-o7n* '1sABS' and *-o7n laj* '1pABS'. In Proto-Tzeltalan the process involved *-tik* 'pluraliser' instead of *laj* 'all', as well as the phonetic reduction of *-o7n* '1pABS' to *-o*.

5. CONCLUSION AND FUTURE RESEARCH

One of the challenges to the historical linguist is the balance between the call for uniformity in the application of the comparative and internal reconstruction methods and the need to avoid reconstructing a scenario that is the result of after-the-fact analogy, e.g., through paradigm levelling. The data discussed here are sometimes not sufficient to allow us to discern the most likely scenario between such alternatives, and further research will be necessary to attempt such a distinction. Nevertheless, one can conclude:

1. It is possible to offer detailed reconstructions not only of the Proto-Ch'olan pronouns, but also of the Proto-Western Ch'olan and Proto-Eastern Ch'olan forms.

2. The modern linguistic data suggests a period of time during which three distinct pronoun bases may have coexisted within the larger Pre- and Proto-Ch'olan community: *ha7-*, *ha7in-*, *nats'-*. It is very likely that such coexistence was sociolinguistically motivated – either by social factors such as status or by contextual factors such as differential formality across speech genres. It is also possible that the *nats'-* base was restricted to the 1st person singular and plural – although it was eventually generalised and extended in Eastern Ch'olan.

3. Classic period glyphic texts suggest at least two distinct pronoun sets: one based on the pronoun base *ha7-*, which was the standard form used in official and public stone monuments and all other media, and the other based on the pronoun base *hin-*, attested hieroglyphically only in a handful of pottery vessels, and the result of the contraction of *ha7in-*, representing an innovative and highly restricted form, which is today attested only in Western Ch'olan (Ch'ol, Chontal). The coexistence of these two sets may have been motivated by formality-defined registers, as well as regional variation, itself suggested by the fact that the *hin-* forms survive today only in the Western Ch'olan languages. Nevertheless, in the Classic period, the examples of *hin-* are not from the areas of Modern Chontal and Ch'ol speech. Instead, they are found in the eastern Maya lowlands, where one would expect the ancestors of the Ch'olti' and Ch'orti' speakers.

4. It is likely that some of the variation was status-defined, for Classic glyphic texts attest to only two of the pronoun bases, **ha7-* and **hin-*, but not **ha7in-* or **nats'-*, which are also reconstructible to Proto-Ch'olan.

5. Epigraphers should be on the lookout in Classic Lowland Mayan texts for the forms **ha7in* and **nats'* as pronoun bases, and **ha7in* as an article, possibly within a deictic frame of the form **ha7...+in+ENCL*.

6. An important result of this study lies in the discovery of yet another trait that distinguishes Eastern Ch'olan from Western Ch'olan: the article in Eastern Ch'olan, *ne ∼ e*, and the article in Western Ch'olan, *jini ∼ ni*, both from Proto-Ch'olan **ha7in+ENCL* (e.g. **ha7in+e*, **ha7in+i*, presumably also **ha7in+a*). Such a discovery could have implications for future research on the linguistic affiliation of the vernacular and standard speech varieties (Hopkins 1985; Josserand et al. 1985; Justeson 1985; Justeson & Fox 1989; Justeson & Campbell 1997; Houston et al. 2000; Lacadena & Wichmann 2002; Josserand & Hopkins 2002; 2004; Wichmann 2002; Mora-Marín 2003; 2004a; Hruby & Child 2004) and the orthographic conventions (Bricker 1989; Justeson 1989; Houston, Stuart & Robertson 1998; Mora-Marín 2002; 2005; Kaufman 2003; Lacadena & Wichmann 2002) of Classic Lowland Mayan texts.

7. Also of interest is the parallel fashion in which Proto-Tzeltalan and Proto-Western Ch'olan reanalysed the '1pABS' marker into both '1pABS' and '1sABS', and the fact that subsequently each developed a different approach to cope with this ambiguity: Tzeltalan used the -*tik* pluraliser to distinguish -*on* '1sABS' from -*o-tik* '1pABS', while Ch'olan used the *laj* 'all' marker to distinguish -*o7n* '1sABS' from *laj-o7n* '1pABS'. In both cases, then, the former plural form became reanalysed as a prototypically singular form, and so it was apparently necessary for speakers to reinvent the plural marker. It was such ambiguity, in fact, that probably led to the possibility of an inclusive/exclusive contrast in the plural.

8. Finally, the discussion of the origin of Proto-Ch'olan *ha7in*- from a demonstrative deictic frame *ha7* ... + *in*, as well as of the origin of Ch'orti' *ha7ax*, supports the need to study not only the Ch'olan languages but also the Tzeltalan languages, when attempting reconstruction of Ch'olan. It is the Tzeltalan languages that provide a close parallel for the process that led to the Proto-Ch'olan innovation of an unanalyzable form *ha7in*-, as well as for the process that led to the Ch'orti' innovation of *ha7ax*.

It is very likely that future research, consisting of detailed fieldwork elicitations of narratives and grammatical constructions, will yield sufficient data to fill in gaps in and to offer refinements to the present analysis. Such research, of course, requires attention to all of the Ch'olan and Tzeltalan languages, and thus should be part of a broader, long-term programme to further document and analyse these languages. Steps in this direction are already being taken by a few scholars in the United States, Mexico, and Guatemala, but it is time for the rest of us to join in, for there are many communities – including immigrant communities in the United States – that have received little direct attention so far.

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REFERENCES

AULIE, WILBUR H. & DE AULIE, EVELYN W., 1999 [1978]. *Diccionario Ch'ol–Español, Español–Ch'ol*, Mexico City: Instituto Lingüístico de Verano.

FOUGHT, JOHN G., 1984. 'Choltí Maya: a sketch', in M. S. Edmonson (ed.) *Supplement to the Handbook of Middle American Indians*, vol. 2: *Linguistics*. Austin: University of Texas Press, 43–55.

HOFLING, CHARLES ANDREW, 2006. 'A sketch of the history of the verbal complex in Yukatekan Mayan languages', *International Journal of American Linguistics* 72, 367–392.

HOPKINS, NICHOLAS A., 1984. 'La influencia del yucatecano sobre el cholano y su contexto histórico', in *Investigaciones recientes en el área maya; XVII Mesa Redonda; 21–27 junio 1981*, San Cristóbal de Las Casas, Chiapas: Sociedad Mexicana de Antropología, 191–207.

HOPKINS, NICHOLAS A., 1985. 'On the history of the Chol language', in E. P. Benson (ed.), *Fourth Palenque Round Table, 1980*, vol. 6. San Francisco: Center for Pre-Columbian Art Research, 1–5.

HOPKINS, NICHOLAS, GUZMÁN, AUSENCIO CRUZ & JOSSERAND, KATHRYN, 2008. 'A Chol (Mayan) vocabulary from 1789', *International Journal of American Linguistics* 74: 83–114.

HOUSTON, STEPHEN D., ROBERTSON, JOHN & STUART, DAVID S., 2000. 'The language of classic Maya inscriptions', *Current Anthropology* 41: 321–356.

HOUSTON, STEPHEN D., STUART, DAVID S. & ROBERTSON, JOHN 1998. 'Disharmony in Maya hieroglyphic writing: linguistic change and continuity in classic society', in A. Ciudad Ruiz, Y. Fernández Marquínez, J. M. García Campillo, M. J. Iglesias Ponce de León A., Lacadena García-Gallo & L. T. Sanz Castro (eds.), *Anatomía de una civilización: Aproximaciones interdisciplinarias a la cultura maya*, Madrid: Sociedad Española de Estudios Mayas, 275–296.

HRUBY, ZACHARY X. & CHILD, MARK B., 2004. 'Chontal linguistic influence in Ancient Maya writing', in Søren Wichmann (ed.), *The Linguistics of Maya Writing*, Salt Lake City: University of Utah Press, 13–26.

HURLEY, A. & SÁNCHEZ, A. RUÍZ, 1978. *Diccionario Tzotzil de San Andrés con variaciones dialectales*, México, DF: Summer Institute of Linguistics.

JOSSERAND, K. & HOPKINS, N. A., 2002. 'Classic Maya social interaction and linguistic practice: evidence from hieroglyphic inscriptions and Mayan languages', in Vera Tiesler Blos, Rafael Cobos & Merle Greene Robertson (eds.), *La organización social entre los mayas; memoria de la Tercera Mesa Redonda de Palenque*, vol. 2, México, DF: Instituto Nacional de Antropología e Historia, and Mérida: Universidad Autónoma de Yucatán, 355–72.

JOSSERAND, KATHRYN & HOPKINS, NICHOLAS A., 2004. 'Language and dialect in the classic Maya lowlands', paper presented to the Maya Meetings at Texas, University of Texas at Austin, 11–20 March.

JOSSERAND, KATHRYN, SCHELE, LINDA & HOPKINS, NICHOLAS A., 1985. 'Auxiliary verb + *ti* constructions in the classic Maya inscriptions', in E.P. Benson (ed.), *Fourth Palenque Round Table, 1980*, vol. 6, San Francisco, CA: Center for Pre-Columbian Art Research, 87–102.

JUSTESON, JOHN S., 1985. 'Hieroglyphic evidence for Lowland Mayan linguistic history', *International Journal of American Linguistics* 51, 469–471.

JUSTESON, JOHN S., 1989. 'The representational conventions of Mayan hieroglyphic writing', in W.F. Hanks & D.S. Rice (eds.), *Word and Image in Maya Culture: Explorations in Language, Writing, and Representation*, Salt Lake City: University of Utah Press, 25–38.

JUSTESON, JOHN S. & CAMPBELL, LYLE, 1997. 'The linguistic background of Maya hieroglyphic writing: arguments against a "Highland Mayan" role', in M. J. Macri & A. Ford (eds.), *The Language of Maya Hieroglyphs*, San Francisco, CA: Pre-Columbian Research Institute, 41–67.

JUSTESON, J. S. & FOX, J. A., 1989. 'Hieroglyphic evidence for the languages of the Lowland Maya', MS.

JUSTESON, JOHN S., NORMAN, WILLIAM M., CAMPBELL, LYLE & KAUFMAN, TERRENCE, 1985. *The Foreign Impact on Lowland Mayan Language and Script*, Middle American Research Institute, Publication 53, New Orleans, LA: Tulane University.

KAUFMAN, TERRENCE S., 1971. *Tzeltal Phonology and Morphology*, Berkeley: University of California Press.

KAUFMAN, TERRENCE S., 1972. *El proto-tzeltal-tzotzil: fonología comparada y diccionario reconstruido*, Centro de Estudios Mayas, Cuaderno 5, Mexico: UNAM.

KAUFMAN, TERRENCE S., 1976. 'Archaeological and linguistic correlations in Mayaland and associated areas of Mesoamerica', *World Archaeology* 8: 101–18.

KAUFMAN, TERRENCE S., 1989. 'Mayan comparative studies, parts A–D', MS.

KAUFMAN, TERRENCE S., 1990. 'Algunos rasgos estructurales de los idiomas Mayances', in N. England & S. Elliott (eds.), *Lecturas sobre la lingüística maya*, La Antigua, Guatemala: CIRMA, 59–114.

KAUFMAN, TERRENCE S., 2003. Notes presented at the Crabs and Glyphs meeting of September 2003 in Arnold, MD, sponsored by Hutch Kinsman.

KAUFMAN, TERRENCE & NORMAN, WILLIAM, 1984. 'An outline of proto-Cholan phonology, morphology, and vocabulary', in J. S. Justeson & L. Campbell (eds.), *Phoneticism in Maya Hieroglyphic Writing*, Institute for Mesoamerican Studies Publication No. 9, Albany: State University of New York, 77–166.

KELLER, KATHRYN C. & LUCIANO G., PLÁCIDO, 1997. *Diccionario Chontal de Tabasco*, Tucson, AZ: Instituto Lingüístico de Verano.

KERR, JUSTIN, 1989. *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases*, vol. 1.

KNOWLES, SUSAN M., 1984. 'A descriptive grammar of Chontal Maya (San Carlos dialect)', Ph.D. thesis, Department of Anthropology, Tulane University.

LACADENA, ALFONSO & WICHMANN, SØREN, 2002 [1999]. 'The distribution of Lowland Maya languages in the Classic Period', in Vera Tiesler Blos, Rafael Cobos & Merle Greene Robertson (eds.), *La organización social entre los mayas: memoria de la Tercera Mesa Redonda de Palenque*, vol. 2, México, DF: Instituto Nacional de Antropología e Historia, and Mérida: Universidad Autónoma de Yucatán, 275–319.

LAUGHLIN, ROBERT M., 1975. *The Great Tzotzil Dictionary of Santo Domingo Zinacantán*, Smithsonian Contributions to Anthropology No. 19, Washington, DC: Smithsonian Institution Press.

LAUGHLIN, ROBERT M. & HAVILAND, JOHN B., 1988. *The Great Tzotzil Dictionary of Santo Domingo Zinacantán*, Smithsonian Contributions to Anthropology No. 31, Washington, DC: Smithsonian Institution Press.

MORA-MARÍN, DAVID F., 2001. 'The grammar, orthography, and social context of Late Preclassic Mayan texts', Ph.D. thesis, University at Albany, NY.

MORA-MARÍN, DAVID F., 2002. 'Affixation Conventionalization Hypothesis: explanation of regularly disharmonic and synharmonic spellings in Mayan writing', MS.

MORA-MARÍN, DAVID F., 2003. 'Pre-Ch'olan as the standard language of Classic Lowland Mayan texts', paper presented at the 2002–3 SSILA Meeting, Atlanta, GA, January 2003.

MORA-MARÍN, DAVID F., 2004a. 'Pre-Proto-Ch'olan as the standard language of Classic Lowland Mayan texts', MS distributed among participants of the 2004 Crabs and Glyphs meeting organised and hosted by Hutch Klinsman.

MORA-MARÍN, DAVID F., 2004b. 'Discourse structure and coordinate constructions in Classic Lowland Mayan texts', in Søren Wichmann (ed.), *The Linguistics of the Maya Script*, Salt Lake City: University of Utah Press, 339–364.

MORA-MARÍN, DAVID F., 2005. 'Affixation Conventionalization Hypothesis: explanation of Mayan spelling practices', paper presented at the 43rd Conference on American Indian Languages in Oakland, CA, 8 January 2005.

MORAN, FRANCISCO, 1695. *Arte en lengua Choltí, que quiere decir lengua de milperos*, photographic copy, Latin American Library, Tulane University, New Orleans. Facsimile edition by Gates (1935).

MORWAR OJRONER CH'ORTI', 2000. *Oj ronerob' Ch'orti', Vocabulario Ch'orti'*, Guatemala City: Academia de Lenguas Mayas de Guatemala.

PÉREZ MARTÍNEZ, VITALINO, 1994. *Gramática del Idioma Ch'orti'*, La Antigua, Guatemala: Proyecto Lingüístico Francisco Marroquín.

ROBERTSON, JOHN S., 1992. *The History of Tense/Aspect/Mood/Voice in the Mayan Verbal Complex*, Austin: University of Texas at Austin.

ROBERTSON, JOHN S., 1998. 'A Ch'olti'an explanation for Ch'orti'an grammar: a postlude to the language of the Classic Maya', *Mayab* 11: 5–11.

SCHUMANN, OTTO, 1978. 'Consideraciones sobre el idioma chontal de Tabasco', in Lorenzo Ochoa (ed.), *Estudios preliminares sobre los mayas de las tierras bajas noroccidentales*, México, DF: Universidad Nacional Autónoma de México, 91–105.

SLOCUM, MARIANNA C., GERDEL, FLORENCIA L. & AGUILAR, MANUEL C., 1999. *Diccionario Tzeltal de Bachajón, Chiapas*, México, DF: Instituto Lingüístico de Verano.

SMAILUS, ORTWIN, 1975. *El Maya-Chontal de Acalán: análisis lingüíistico de un documento de los años 1610–12*, Centro de Estudios Mayas, Cuadernos 9, México, DF: UNAM.

STROSS, BRIAN, 1992. *Chorti Maya Lexicon*, Language Laboratory, Department of Anthropology, University of Texas, transcribed and transliterated from handwritten fieldnotes of C. Wisdom. http://www.utexas.edu/courses/stross/chorti/index.html

WICHMANN, SØREN, 2002. *Hieroglyphic Evidence for the Historical Configuration of Eastern Ch'olan*, Research Reports on Ancient Maya Writing 51, Washington, DC: Center for Maya Research.