Piedras Negras Panel 3: Some thoughts on spoken words

Abstract: In this article I present one possible reading of the spoken texts on Piedras Negras Panel 3. I suggest that these record a conversation between the young lords arriving from Yaxchilan and the Piedras Negras ruler about the banquet which was organized by an ancestor from Yaxchilan. Also, I propose that the BAT.T528 sign was read as **ch'u** in the Late Classic period which is productive in various contexts.

Keywords: Linguistics; Classic Maya; Epigraphy; Iconography; Piedras Negras; Guatemala.

Resumen: En este artículo presento una lectura posible de los varios textos de discurso directo en Tablero 3 de Piedras Negras. Propongo que es una conversación entre los príncipes de Yaxchilan y el gobernante de Piedras Negras sobre la banqueta que fue organizada de un antepasado de Yaxchilan. También propongo que la lectura del signo MURCIELAGO.T528 era **ch'u** en el Clásico Tardío que es productivo en varios contextos.

Palabras clave: Lingüística; Maya; Clásico; Epigrafía; Iconografía; Piedras Negras; Guatemala.

Since its discovery Piedras Negras Panel 3 (Figure 1) has been looked upon as one of the most beautiful Classic Maya monuments.¹ The long text promptly captured the imagination and curiosity of scholars; however only with the work of Tatiana Proskouriakoff (1960) did it begin to reveal its secrets. Subsequent work by epigraphers unravelled the main text as the record of a banquet by Itzam K'an Ahkul II, though the inscription was commissioned by a late descendent, Yat Ahk II, in 787 in commemoration of a tomb re-entry ceremony (Montgomery 1995; Fitzsimmons 1998; Teufel 2004; Martin & Grube 2008: 149).

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Panel 3 measures 126 cm long by 62 cm high and 14 cm thick and is carved on a single surface. It was discovered in 1931 in the surface debris of Structure O-13 by the University Museum of Pennsylvania Project. The panel was found outside of the temple foundation walls slightly to the left of the second doorway and probably had formed with other panels a majestic sculptural *ensemble* on the risers, or on the facade, or on a stairway block (Morley 1937-1938: 221).

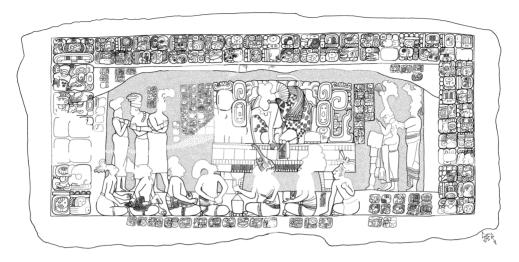


Figure 1. Piedras Negras Panel 3 (drawing by Alexander Safronov, <www.wayeb.org>).

Enough mysteries remained, however, most importantly the mention of a certain Yopat B'ahlam II, the famous interregnum ruler in Yaxchilan (Grube 1999), and also the record of the accession of Yaxu'n B'ahlam IV under the auspices of Itzam K'an Ahkul II on a date different from the one otherwise inscribed on Yaxchilan monuments.

Linda Schele and David Freidel (1990: 304) interpreted Panel 3 as the representation of an heir designation ceremony for the later K'ihnich Yo'nal Ahkul III, who acceded to the throne in 9.16.6.16.17, four months after the death of Itzam K'an Ahkul II in 9.16.6.11.17. They were not able to read much of the text carved in front of the ruler, but they suggested that the name Yopat B'ahlam in the main text referred to Yaxun B'ahlam IV, and that he was represented among the figures to the left of the Piedras Negras king. Nikolai Grube (1999: 121-124) suggested that Itzam K'an Ahkul II was already dead during the accession of a certain Yaxun B'ahlam recorded in the same text, while Stephen Houston (2004: 284, note 37) has recently proposed that this text refers to an Early Classic relationship not directly relevant to Yaxun B'ahlam IV.

The latest discovery was presented by David Stuart, Stephen Houston and John Robertson, who identified the main incised text in front of the sitting ruler as a spoken discourse where second person ergative pronouns indicate that this is a rare record of an actual conversation between Itzam K'an Ahkul II and some Yaxchilan youngsters and their guardians (Stuart, Houston & Robertson 1999). Nevertheless, the reading of the text remained unresolved.

Without being able to decipher the spoken texts it is hard to suggest anything with certainty, but some parts of these direct speech records can be interpreted with greater plausibility and some suggestions thus can be put forth. In this short paper I propose some new interpretations of the four incised texts on the monument, which are records of direct speech, otherwise rare on Classic Maya monuments.

First I address the long text in front of Itzam K'an Ahkul II, and then I suggest a reading for the three glyph-block text above the head of the leftmost figure (from an onlooker's viewpoint). Third, I present a possible interpretation of the partially eroded text on the middle part of the curtain, arguing that this is the text which anchors the date and thus the events which are referred to in the main incised text, and finally I deal with the already deciphered text between two sitting dignitaries on the lower part of the monument.

1. The main texts of the panel: A short summary

Before dealing with the direct speech texts, a short summary of the main inscription is necessary. The text begins with the Initial Series date (9.15.18.3.13) on which Itzam K'an Ahkul II (729-757) began the celebration of his first winikhab' anniversary as a king of Piedras Negras (tzuhtzaj ujun winikhab'lat ti ajawlel). This anniversary was said to be witnessed (yilaj) by a certain Sak Jukub' Yopat B'ahlam, a ruler of Yaxchilan. Two days later, on 9.15.18.3.15, he danced (ak'taj ti emal mo') and on the same night he drank fermented cacao (uch'un tikal kakaw). The event line then jumps to the death of Itzam K'an Ahkul II, 9.16.6.11.17, then to his burial three days later in 9.16.6.12.0 in a tomb named Ho' Janab'nal Witz (muhkaj). The final event is a tomb re-entry ceremony (elnahaj) by K'inich Yat Ahk II in 9.17.11.6.1.

The other texts on the monuments, apart from the four direct speeches, are the names of the represented individuals and the sculptors of the panel (Montgomery 1995). The main protagonist is clearly the sitting ruler (Individual 1) on the throne who leans toward his right, addressing words to three other attending persons (Individuals 2-4). On the lower part of the monument there are seven sitting males (Individuals 5-11), four looking to the left and three to the right, between them a typical *kakaw* drinking cup. Finally, to the ruler's left there are four standing persons (Individuals 12-15).

From the captions, it is known that they refer to the represented individuals who are dignitaries (sajal, ti' sak hun, aj k'uhun, b'ah ajaw), two younger individ-

² In my transcription and transliteration of Classic Ch'olan I do not indicate complex vowels. I indicate the glottal stop and glottalised consonants with /'/ (thus /b'/, /k'/, /tz'/ etc.). Transcriptions are in bold and transliterations are in italics, translations follow between "...".

uals from the Piedras Negras royal court (one later becomes the ruler of La Mar), and to the right of the sitting person there is a group of lords among whom one was certainly from Yaxchilan (*ch'ok pa'chan ajaw*). Interestingly, the only individual who is not named explicitly by a caption is the person on the throne; however, from the main text it is known that he is Itzam K'an Ahkul II.

From the concurrent reading of text and image, it can be said with confidence that the panel represents one of the many events during the celebration of the first winikhab' anniversary as imagined two generations later.

2. The text between individuals 10 and 11

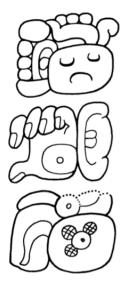


Figure 2. Detail, Piedras Negras Panel 3 (drawing by Alexander Safronov, www.wayeb.org).

A short three glyph-block text was incised between Individuals 10 and 11 (Figure 2), and was partially deciphered by David Stuart as a-wi-na-ke-na/awinaken~ "I am your servant" (Stuart, Houston & Robertson 1999: II-19). This simple quotation consists of the second person ergative pronoun a-, the noun winak~"human, man, servant", and the -en first person absolutive pronoun. David Stuart did not present the third glyph block which contains the spelling vo-ki-b'i/vokib' otherwise known from the emblem glyph of Piedras Negras (Berlin 1958; Stuart & Houston 1994). The complete direct speech is "I am your servant, Yokib"" which is unique in the corpus of Maya inscriptions, and is also highly unusual as it uses a toponym as an anthroponym. This lends itself to some insights into the emic view of political identity and the role of emblem glyphs in Classic Maya discourse and society. Although it is well known that a ruler has as a title k'uhul X ajaw where X is a toponym, in those cases the k'uhul ajaw (divine lord) itself refers to the quality of human being, and not the toponym. In the short text of Piedras Negras, Yokib' almost functions as a group identity name (ethnonym), as most of the sitting persons had their own toponymic designation or none at all.

Classic Maya inscriptions do not identify polity leaders and subordinates with the same names, therefore there is no example when a subordinate *sajal* of Yokib' (such as in the case of El Cayo), becomes a Yokib' *sajal*.

What this text probably hints at is the identification of the polity name with the ruler, who became thus the polity-in-body, which lends itself in turn to various interpretations of Classic Period politics and political organisation. Also, as is well-known from epigraphic sources, Classic Period interaction was a personal bond,

somebody became a possession of somebody else when hierarchical relationships were expressed and this text is clearly in line with this interpretation.

2. Spoken words of the youngsters

Above the head of Individuals 2-4, a curtain contains two slightly separate texts, one having three glyph blocks in a single vertical line, while the other contains four glyph blocks, although the last one is heavily eroded (Figure 3). The first text, as I shall argue, is the record of a single spoken sentence by one of the youngsters who has arrived from Yaxchilan. I also believe that this text is a reply to the enunciation of the ruler on the throne; nevertheless I will address it first, as it has fewer problems than the other texts. Indeed all graphemes can be securely identified and a complete transcription is possible with an intelligible translation which fits the context and current understanding of the text on the monument:

ha-a ta-ka *CHAN-nu

ha'at ka chan(ul)
2S INDP-2PLE-guardian
"it is you who are our master".

This reconstruction takes into account that just as in the case of the other short text (awinaken), one linguistically continuous morpheme was written into separate glyph blocks, otherwise a rare scribal practice in Maya inscriptions. At first sight, the spelling ha-a-ta for the second person independent pronoun is unusual as this is usually written as ha-ta in other inscriptions (Stuart 2005). Nevertheless, linguistic data indicate that the reconstructed form of the second person independent pronoun should be *ha'at which conforms to the ha-a-ta spelling proved in Piedras Negras, which would be thus a full spelling of this particular morpheme. The meaning of this second person pronoun is "you, you who are/it is you who are..." and usually refers to a different individual than the speaker. Just as in the case of the speech of the servant, this utterance therefore also begins with a direct reference to somebody other than the speaker.³

Recently, David Stuart (2011a) published a short text from Palenque where ha-ta begins a sentence in a similar manner to the case of Piedras Negras: ha-ta i-tz'i-WINIK ch'o-ko AJ-pi-tzi-la OL-la -B'en/ ha'at itz'i[n] winik ch'ok aj pitzil o[h]l B'en. As Stuart noted, the translation is "You, younger brother, the unripe one, Aj Pitzil Ohl, B'en". Ha'at works as a sentence initial address term just as in the case of Piedras Negras. Interestingly, it is not followed by a name but by a title sequence which is also parallel to the text on Panel 3.

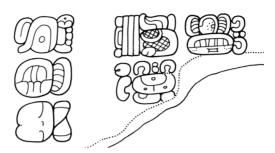


Figure 3. Detail, Piedras Negras Panel 3 (drawing by Alexander Safronov, <www.wayeb.org>).

The next sequence of graphemes can be segmented into the plural second person ergative pronoun ka and the noun chan. Although very rare, the ka plural second person ergative pronoun has been proved in texts coming from painted ceramics.

The morpheme *chan* frequently stands between captor and captive, but in fact it reflects a poorly understood pattern of guardianship between higher and lower ranked individuals. That this relationship existed between persons with *ch'ok* title and other individuals is proven by the inscription of Dos Pilas Panel 19 (Figure 4), where a person called Nak Hab' Ochnal Chahk *aj kan[u]l* is described as *uchanul ch'ok* or the "master of the *ch'ok*", referring to the young individual in front of him (Miller & Martin 2004: 26). Indeed, another person behind him is perhaps also the guardian of the young person, if the reading order of the short text is changed to *na[h]b'nal k'inich uchan[ul] aj b'alun ti'*? *ch'ok mut[ul] ajaw* (which interpretation gives the name of the young lord as Aj B'alun Ti'? *ch'ok mutul ajaw*).⁴

The sentence therefore can be translated as "you/you are, it is you who are, our guardian", however it is difficult to decide between a simple addressing interpretation and an affirmative sentence. If this is the first, then the translation is closer to "You, our guardian"; if it is the second, then the speaker affirms a relationship into which he enters, recognizing another person as his guardian: "You are our guardian". Again, comparison to the other short text (awinaken) lends more support to this second interpretation.⁵

⁴ As I have argued above, the young individuals (*ch'ok*) behind the throne on Panel 3 stand accompanied by at least two older persons (one of them an *aj k'uhun*) who could be the guardians of the future rulers of Piedras Negras (K'ihnich Yat Ahk II) and La Mar (O' Chahk).

⁵ A third interpretation is that the ka grapheme is a phonetic complement to the SNAKE-nu spelling indicating that the correct reading of the guardianship glyph is ka-KAN-nu or *kanu[l]*. In this case the sentence is *ha'at kanul* or "you are the guardian". Nevertheless, it is assumed that this word began with *ch*, therefore ka *chanul* "our guardian" is favoured here (see Lacadena & Wichmann 2004: 140).

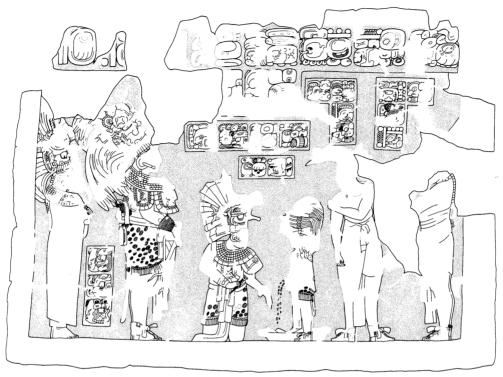


Figure 4. Dos Pilas Panel 19 (drawing by David Stuart and Stephen Houston, in: Miller & Martin: 2004: 26, fig. 11).

The travelling of young royal and noble persons to the court of higher ranked kings is mentioned several times in the inscriptions (Martin 2001). In the case of La Corona, a subordinate ruler's son spent time in Calakmul before returning after his father's death to take the throne. In the case of Dos Pilas Panel 19, the son of the local king, a subordinate of Calakmul, had a guardian from that later site. Piedras Negras Panel 3 already mentions the prince of La Mar as a person in the royal court and the meeting of the princes from Yaxchilan – with the arrival of their ruler – indicate a superordinate-subordinate relationship in 749 between Piedras Negras and Yaxchilan.

3. The second text on the curtain

The other short text on Piedras Negras Panel 3 consists of three surviving glyphs and an eroded fourth glyph block. It is possible that this text records actions connected to the individual who is listening to the king. Although each glyph can be read, a translation is especially difficult (Text 34). This little text could be the

key to understanding the whole scenario and especially to locating the dates of the ruler's text in the long count. The transcription of the text is straightforward:

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17-yo-o WINIKHAB'-ya wa-ya-la-wa a-?? huklajun yo' winikhab'fily wa'<sup>6</sup> ya'law a ??.
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Like other Classic Period sentences this also begins with a temporal indicator. Then clearly there is an active intransitive verb modified with a prefixed morpheme, while the eroded glyph block probably once contained the agent. The problems with the translation of this short sentence begin right away with the 17 *yo' winikhab'iy* sequence.

As this particular expression is followed by a verb, my assumption is that this sequence refers to the date of the utterance.⁷ This leads me to interpret 17 *yo'* winikhab'iy as a distance number. However, there are two problems in trying to place this utterance in time: one concerns the interpretation of the unique *yo'* morpheme and the other relates to the question of the date from which the distance number should be 'subtracted'.

If the number 17 and the untranslated *yo'* together form a sequence 'number-numeral classifier' and refer to the following period counted, then the saying could refer to events 17 *winikhab'* before a certain other date, probably the present of the utterance. If *yo'* refers to an as yet unknown time period then the utterance refers back one *winikhab'* and 17 *yo'* earlier. Therefore, two alternative translations are possible:

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"17 winikhab' earlier here he said it"
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or

"17 yo' and 1 winikhab' earlier here he said it".

Formerly, wa was thought to be an aspectual marker (Stuart, Houston & Robertson 1999: II-33); however, I propose that it is a deictic reconstructed back to Proto-Ch'olan as wa' or wa (i) with the meaning of "here" (Kaufman & Norman 1984: 139; personal communication with John Justeson, March 2011). If such is the case then the translation of wa' ya'law is "here he said it". Other such cases are wa' yak'aw (Naranjo Stela 32) and also wa' tali (on K4999, 7727 and on a third vase published in Tunesi 2008; the wa' tali spelling was kindly pointed out to me by Guido Krempel, personal communication May 2011).

⁷ This can be confirmed by the use of the *winikhab'iy* compound with the deictic clitic *-iy*; *winikhab'* is used in the Classic Period calendar as a unit of 7,200 days and it frequently occurs in distance numbers where it can be suffixed with the *-iy* deictic enclitic referring to earlier events mentioned in the text (Wald 2000; 2004; 2007).

There are arguments in favour of both interpretations. Where the first is concerned, although I have not found any evidence of the *yo'* morpheme as either a numeral classifier or time period in any Mayan language, its position after the number seventeen leaves no other possible interpretation.⁸

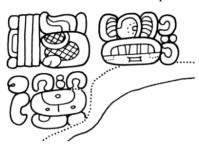


Figure 5. Detail, Piedras Negras Panel 3 (drawing by Alexander Safronov, www.wayeb.org).

The reasons for accepting the second interpretation are structural. When two numbers occur together in a distance number, frequently the counted period of the first is not written. However when separation occurs the necessary units always follow the numbers. I do not know of any example, however, of distance numbers where a numeral classifier is used between the number and the period unit and where they are written separately. This might indicate that the morpheme *yo'* either refers to an otherwise unknown time unit or that it refers to counted days in the inscriptions.⁹

Whatever the date of the utterance and the events mentioned in it (17 winikhab' earlier in this case), these readings lead to the conclusion that the Yaxu'n B'ahlam mentioned in the text cannot be identical with Yaxu'n B'ahlam IV and the text then refers back to events either a Calendar Round earlier or in the distant past.

4. The main incised text

An initial problem in the decipherment of this text is the lack of an accepted transliteration, as some of the signs have not been deciphered or have been left unanalysed (Figure 6). Originally the text was composed of 28 glyph blocks but 8 glyph blocks are partially or completely eroded, making the reading of the text

⁸ It is interesting that in the Yukatek of Hocaba, *yoó'* means "upon, stuck" (Bricker, Po'ot Yah & Dzul de Po'ot 1998) which can function as a numeral classifier, i.e. "17 *winikhab'* upon [each] other".

Recently I have come upon another occurrence of yo-o in the text of Palenque Temple XIV Panel where the text begins with the date 14.2.5.3.12.6.2 9 Ik' 10 Mol and the K'awil-taking of the Moon Goddess (*uhti ch'am k'awil*). This clause is followed by 7/8 yo-o 12/13 yo-o and the date 13 Ok 18 Wo. There are debates about the floating dates of this inscription, according to one reconstruction 13 Ok 18 Wo corresponds to 9.10.15.7.10 while the next date in the sequence is 9.11.1.2.0 9 Ajaw 3 K'ank'in. The 7/8 yo' and 12/13 yo' function as a distance number connecting 9 Ik' 10 Mol to 13 Ok 18 Wo. Nevertheless, it is unusual to have the same period unit with two different numbers in a distance number. One seemingly similar practice is the 3-11-B'AKTUN formula, however thus far I have not resolved how 7/8 yo' and 12/13 yo' work in this text, but a research partnership with Carl Callaway is underway to unravel this enigmatic mathematical term in Classic Period texts.

difficult. However, in the last ten years improved documentation and new decipherments have made a better transcription of the text possible:

hi a-ha na-NAL a-BAT.T528 b'i-ji u-KAB'-ji-ya a-MAM ya-xu-ni B'ALAM K'IN?-ni-ya¹⁰ 2-Kawak 2-MUWAN-ni o? ni-ya¹¹ 3-20-ji-ya JOY-ya ta-AJAW-le ya-xu-ni B'ALAM u-KAB-ji-ya ITZAM-K'AN-AK 5-Kib *19-ma-MAK ha-i ta-li-ya¹² a-MAM??

A portion of the text is straightforward to read and translate, however glyph blocks A1 to A3 have not been adequately transcribed or translated in the past. Of crucial help in the interpretation of the text is David Stuart's suggestion that the $\bf a$ graphemes represent the second person ergative pronoun a(w)- in Classic Ch'olan (Stuart, Houston & Robertson 1999: II-19). This insight helped with the understanding that the text records a conversation between the ruler and the young princes arriving at the court. The conversation is about some events which were supervised by the grandfather/ancestor (amam) of the young lords. The same grandfather/ancestor was inaugurated by Itzam K'an Ahkul, who was probably a different ruler from the Itzam K'an Ahkul II who received the princes into his palace.

A crucial indicator in understanding the undeciphered part of the text is the *kab'I expression (MacLeod 2004; Wald 2007) which frequently follows another verb. The expectation is therefore that there is at least one verbal construction previous to *ukab'jiy* in B3. According to one possible interpretation, the a-BAT.T528-b'i-ji can be a derived transitive verb with a -Vj suffix (Lacadena 2003; MacLeod 2004; Wald 2007). Another possibility is that this was a derived noun. The other untranslated expression in B1-A2 is a possessed noun (ahanal), while the first glyph block (hi or hi[n]) either contains a demonstrative pronoun or the first person independent pronoun (Hull, Carrasco & Wald 2009). In the following I deal with each of these three expressions in more detail and I propose some translation solutions.

¹⁰ This glyph block is partially eroded but the remaining glyphs are clearly ?—ni-ya which requires a CVn morpheme. Albert Davletshin proposed K'IN-ni-ya which would fit the context and the syntax; however I am not aware of such use of K'IN in the inscriptions. K'iniy means "on the day ...".

¹¹ The spelling **o-ni-ya**/*oniy* means "before, earlier, previous" and its cognates are Ch'orti' *oni* (Wisdom 1950), Ch'olti' *oni* (Morán 1935), and Ch'ol *oni* (Attinasi 1973). In Proto-Ch'olan Kaufman & Norman (1984: 138) reconstruct it as **on-i* "anteriormente/formerly; antiquamente/long ago".

¹² This reading was suggested by Nikolai Grube (personal communication 2011).

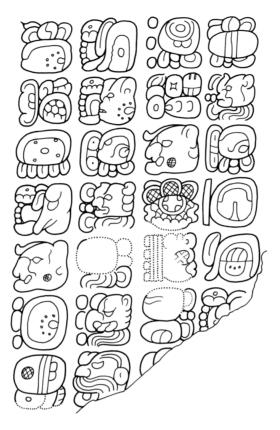


Figure 6. Detail, Piedras Negras Panel 3 (drawing by Alexander Safronov, <www.wayeb.org>).

1, hi



Figure 7: Detail of K7727 (photograph by Justin Kerr).

The main incised text begins with **hi**, a simple syllabic sign which stands alone and does not have a postposed logogram or syllabogram in the next glyph block. The transliteration and translation of **hi** have not yet been dealt with adequately. Kerry Hull, Michael Carrasco and Robert Wald (2009: 40) interpreted **hi** as an underspelling or local variation of **hi-na/***hin* which they suggested was the first person singular ergative pronoun "I, it is I who...". The same expression was interpreted as the third-person demonstrative pronoun *hin-a/i* meaning "he/she/it here/ there" by David Mora-Marín (2009).

Nevertheless, there are only three cases where **hi** occurs alone but the contexts did not really help to clarify its meaning. Apart from Panel 3, it occurs on K1092 and K7727. Interestingly, on K7727, it does occur at the end of the sentence which makes it unlikely that **hi** was the abbreviation of the singular first-person independent pronoun. The phrase is the following (Figure 7):

a-LAY-ya SAK-tzi ma wa-la-wa hi alay sak tzima[h]¹³ wa[']law hi "this white gourd I say/said that" "this is white gourd as I said it"

Although there are problems with this translation, the last clause is indicative. **Wa-la-wa** can be analysed as *w-a[']l-aw* or *w-* (first person ergative pronoun), *al*-(to say) and -*aw* (thematic suffix for transitive verbs). If *hi* is the first-person independent pronoun then this would result in a grammatically incorrect sentence – **wa[']law hin* "I said it I'' – instead of **hin alaw*. As *hi* can be either sentence initial or final, and precedes nouns and follows verbs, it behaves as a demonstrative with the meaning of "this, that". One possible cognate is Itzaj Mayan *je*-ostensive demonstrative which usually stands with -*la* or -*lo* (here vs. there) and occupies sentence initial or final positions (Hofling 2000: 181, 298-299). Tentatively, I suggest that *hi* may have been a demonstrative pronoun, and indeed could have been the shortened form of *hin*, once documented as *hi-ni* in Classic Period inscriptions.¹⁴

¹³ This spelling was kindly pointed out to me by Nikolai Grube (personal communication 1 June, 2011).

¹⁴ It is possible that **hi-na** and **hi-ni** spell two different morphemes and are not two diachronic spellings of the same morpheme. The first may refer to the first-person singular independent

2, a-ha na-NAL

While in the case of **a**-BAT.KAWAK **bi'-ji** one grapheme is undeciphered and the morphology does not help us decide between two interpretations of the status of this particular expression (see below), **a-ha na-NAL** is fully readable and morphologically it has to be a possessed noun. Nevertheless there are various problems in translating this expression. There are at least two plausible transliterations:

a, a hanal b, a haf'] nal

While in all cases \mathbf{a} - is the second- person singular ergative pronoun ("your ..."), the following expression may contain a derived noun ($-V_1l$) or a *difrasismo*. In the first case we have to accept that the spelling occupies more than one glyph block which would not be unusual in this particular text. Spelling *hanal* as \mathbf{ha} \mathbf{na} - \mathbf{NAL} looks cumbersome at first, nevertheless we have exactly the same type of spelling in the case of *chanal* (\mathbf{CHAN} - \mathbf{na} - \mathbf{NAL}), where \mathbf{na} is a phonetic complement spelled out as a convention (\mathbf{CHAN} - $\mathbf{(na)}$ - \mathbf{NAL}). One explanation for the \mathbf{ha} \mathbf{na} - \mathbf{NAL} spelling is a conscious effort by the scribe to indicate the root *han*, which would then receive the vowel harmonic derivational suffix -al.

At present no such root exists in Lowland Mayan languages and certainly there is no proto-Mayan cognate either. *Janal* "comida/food" is a derived noun in Yukatekan and Wastekan languages, ultimately coming from a reconstructed root *ja- (Kaufman & Justeson 2002: 1199). As is indicated in the transcription, hanal begins with a glottal spirant (h) while janal contains a velar spirant (j). While at the end of the Classic period the hij/contrast was disappearing in various regions of the Maya Lowlands (Grube 2004: 79-81), in all cases the scribes discarded hV for jV, and not vice versa (which would be the case with hanal). Other spellings on Piedras Negras Panel 3 indicate that the hij/contrast was maintained (ha-i, ha-a-ta, u-KAB'-ji-ya). If hanal is indeed a cognate of janal then either it is a scribal error or an indication of local pronunciation which is not unexpected in direct speech (ha-a-ta would be such an indication of the otherwise underspelled glottal stop). In such a case the translation would be "this is your food", an apt description of the banquet scene.

pronoun (*ha-iin>*hiin "I"), while the second one could be a cognate of Proto-Western Ch'olan *ha-in>hin and Modern Ch'ol jin "this".

¹⁵ The CHAN-na-NAL and ha na-NAL spellings may indicate morpheme boundaries as perceived by the scribes.

¹⁶ After a search in Maya dictionaries I have not found a root *han-* in Lowland Mayan languages. In Kaufman & Justeson (2002: 1199) we have the following forms: WASw *jayu-* "comer", YUK *jan* "comer" LAK *janän~jajan* "comer" ITZ *janal* "comida".

A second transliteration suggests that a ha['] nal is a difrasismo consisting of two nouns such as in the cases of tok' pakal, kab' ch'e'n etc. ¹⁷ Ha is a common word for water and nal refers to the young ear of corn resulting in a literal translation of "water-maize" which can be a general description of a banquet (see the codices where banquet is represented by the logograms HA' and WAJ or "water" and "tortilla"). Nevertheless this option is problematic for manifold reasons. Maya scribes in most cases used the logogram HA' for ha and thus far I have not found a single case where ha was spelled phonetically. If such a spelling exists it should be spelled as ha-a although underspelling cannot be ruled out. While NAL is a frequent logogram it does not occur with na as a preposed phonetic complement, however it does have usually a postposed la. ¹⁸

Therefore it is more plausible that **a-ha na-NAL** is the spelling of **ha-na-NAL**/hanal and refers to "food" in general, which would be an appropriate term used in the context of a banquet. It remains problematic to explain the use of **ha** instead of the linguistically expected **ja**, however a dialectal variation is one possibility. The spelling of one lexeme in many glyph blocks is not unexpected as **a-wi-na ke-na** and **ha-a ta** are also spelled separately in the text.

3, a-BAT.T528-b'i-ji

There are at least four interpretations of ERG-CVC-V(V)i shaped derivations in Classic Ch'olan. Barbara MacLeod (2004) interprets them as transitive verbs in perfect status which were originally perfect participles. Robert Wald (2007: 312-433) suggests that they are transitive verbs in resultative aspect. John Robertson, Stephen Houston and David Stuart (2004: 284-287) interpret them as nominalised antipassives, while Mariano Sanz González (2006: 618-630) suggests that they are derived nouns, possessed or unpossessed. Recently, David Stuart (2011b: 3-4) suggested that these forms are sometimes nominal and sometimes verbal. In the case of the frequent utz'akb'uj ukab'ij formula he proposed that the first is a verb followed by a derived noun: "he/she/it fulfills (in the sense of making complete) the work/the tending of X". As Robertson pointed out (Robertson, Houston & Stuart 2004: 283) the ergative pronouns in these formulas can refer to different entities, which is proven by the example of nitz'akb'uj ukab'jiy in Copan (Stela 49: D2-C3). Examples without ergative pronouns (MAY-vi-ji, IL-ji and a-ti-ji) prove that there could have been two different suffixes: one $-V_{ij}$ (verbal) and the other -ij (nominal). The example in Piedras Negras is therefore a-BAT.T528-b'i-ji analysed as 2ERG-CVb'-ij and can be either a nominal or verbal derivation.

¹⁷ This was suggested to be by Barbara MacLeod (email dated 10 May, 2011).

¹⁸ A cursory look at Classic Maya dictionaries shows that **na** does not occur as a preposed phonetic complement to any logogram, which makes it even more probable that in the Piedras Negras Panel 3 text it indicates a coda in a CVC morpheme spelled out phonetically as CV-CV (**ha-na**).

Unfortunately the BAT.T528 sign has not yet been deciphered, although suggestions abound. According to recent work done by epigraphers, there are various bat signs in the inscriptions which have different readings, either logographic or syllabic (Boot 2009; Davletshin & Beliaev n.d.). Well-known cases are SUTZ'/SOTZ', tz'i and xu. Other possible cases have not yet been securely deciphered. While previously the BAT.T528 was taken to be either one sign (tz'i) or two separate signs (xu-ku), it is most probable that it was originally a digraph where the bat head element was infixed with T528, thus creating a different grapheme.²⁰

Digraphs are common elements in Classic Maya writing, and T528 is especially prone to form composite signs with other graphemes with new syllabic readings (Lacadena 2010). T528 in itself is **TUN** and **ku**, while it also participates as a diagnostic element in the syllabic signs of **hi**, **pi** and **t'u**. This, in combination with the frequency of certain bat heads as graphemes for CuC, C'i and Cu graphemes, makes it probable that BAT.T528 is a CuC, Ci, Cu, C'i or C'u grapheme. The contexts of BAT.T528 are unfortunately not numerous and they are mainly in toponyms, nevertheless there are other occurrences which help us find plausible suggestions. Currently I have found the following spellings involving BAT.T528:

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BAT.528-pi (Copan Emblem Glyph, name of dance or object in Yaxchilan), BAT.528-ya (emblem glyph main sign, mentioned in Copan and Quirigua), u-BAT.T528-b'a (Copan Structure 9N-82 Bench), a-BAT.T528-b'i-ji (Piedras Negras Panel 3), 4-BAT.528-pi-b'i (Copan Altar G1, Copan Structure 11 Panel), ti-ki-BAT.T528/ki-ti (Copan Structure 11 Bench). 21
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Given that the **u** and **a** syllabic graphemes precede BAT.T528, it is certain that it begins with a consonant. Also, the available suffixes point to the possibility that it is a CV or C'V syllabic grapheme. All its affixes contain either an /i/ (4) or less

¹⁹ It was Marc Zender who systematically analysed the different BAT graphemes in a still unpublished paper sent to several epigraphers (cited in Dayletshin & Beliaev n.d.)

²⁰ Marc Zender was the first who suggested that BAT.T528 was a composite grapheme and he proposed that it should be a Cip logogram (cited in Davletshin & Beliaev n.d.).

Not all of the examples can be explained satisfactorily. 4-BAT.T528-pi-b'i is the name of a group of gods in Copan. Either they are *chan ch'up b'i[j]* or "4 Copan Roads" or *chan ch'upib'* "4 Slicers (instruments)" maybe referring to some sacrificial objects. The reading of the Copan emblem glyph is *ch'up* which can be the Classic Ch'olan cognate of Yukatek *k'o'op* "hondanada, valle" which could refer to the Copan Valley itself (Barbara MacLeod, email dated 10 May, 2011). The name of the dance in Yaxchilan can be simply *ch'up* or the "valley" dance (Barbara MacLeod, email dated 10 May, 2011). The emblem glyph BAT.T528-ya can be *ch'uy* and the name of the god on Structure 11 is difficult to spell at present as the reading order is far from certain (ti-ki-ch'u or ki-ch'u-ti).

frequently an /a/ phoneme (2), except the third person ergative pronoun /u/. In all but three cases BAT.T528 is part of a toponym or an anthroponym which are less relevant for its eventual decipherment. We have the following missing CV or C'V syllabic signs: **ch'e**, **ch'i**, **ch'u**, **t'a**, **t'e**, **t'i**, **tze**, **we**, **wu** and **xe**. ²² As can be seen from this list these signs are all C'V signs with the exception of the Ce and Cu signs. The common characteristic of such graphemes is that they represent phonemes which are relatively rare in Classic Ch'olan. Also, as Alfonso Lacadena (2010) has pointed out, C'V graphemes are frequently digraphs and may constitute a later invention than the original syllabary. From the pattern of suffixation it is less likely that BAT.T528 is a C'e or Ce grapheme as these are mostly pre- and postfixed with other C'/Ce graphemes. Therefore, out of the missing grapheme list, **ch'u**, **t'a** and **t'i** are likely candidates for the BAT.T528 sign.

From the available contexts it is very hard to decide among those possibilities. One major problem is that toponymic and anthroponymic contexts are less useful as they may conserve archaic forms or could even be loan words from other languages, and their denotation is difficult to unravel. Contexts where the grapheme is part of verbs or possessed nouns – which are more helpful for testing specific phonetic values – are Piedras Negras Panel 3 and the bench text from Structure 9N-82 of Copan. In those two contexts a syllabic **ch'u** is productive as can be seen from the evidence I present below.

The Copan Str. 9-N82 Bench (Figure 8) details the parentage of an *aj k'uhun* of Yax Pasaj Chan Yopat who lived in this building compound (Webster 1989; Riese 1989; Schele & Freidel 1990: 329-330; Stuart 1992). The full figure text made decipherment difficult at the beginning, however recent work by Marc Zender (2004: 263-272) has clarified some of the riddles and I suggest solutions for the rest of the untranslated/undeciphered portion. The text begins with the Calendar Round 11 Ajaw 3 Ch'en (9.17.10.11.0 or July 10, 781) and continues with the dedication of the house of Mak'ab' Chanal (*t'ab'ayi yotot mak'ab' chanal*).²³ Then the text continues with a long parentage statement which not only names the mother and possibly the father, but other ancestors too. The mother (*yal*) is Ix K'in Ajaw and Mak'ab' Chanal is the successor (*utz'akb'ul*) of K'uk' K'awil

²² In recent years there have been suggestions for **ch'e**, **ch'i**, **ch'u**, **t'a**, **t'e**, **t'i** and **wu** by various epigraphers (Yuriy Polyukhovich, Elisabeth Wagner, Albert Davletshin, Stephen Houston, Marc Zender, Nikolai Grube), however none of these have been published or stood the test of time. Other missing signs are the complete **p'V** sequence which some epigraphers and linguists doubt was present during the Classic Period (Wichmann 2006), while others think that they were invented not earlier than the Late Classic Period (Lacadena 2010), which would rule them out as candidates for BAT.T528, found in the Copan emblem glyph from the fifth century onward.

²³ The name of Mak'ab' Chanal is sometimes transliterated as Mak'an, however the spelling in Altar W is **ma-k'a-b'a ko-xo-o-pa** which makes it more likely that the name is Mak'ab'.

who is represented directly under his name glyph on one of the supports. An ancestor of Mak'ab' Chanal was Muyal "Jol", probably the sixth ruler of Copan.²⁴

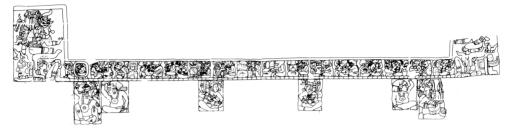


Figure 8. Bench of Copan Structure 9N-82 (drawing by Anne S. Dowd, in: Baudez 1994: 233, fig. 111).

The next relationship term is unique and caused problems in previous attempts of decipherment. It is spelled yo-k'o-lo/yok'ol and it is composed of the third person prevocalic ergative pronoun y-, the root ok'- and a vowel harmonic $-V_1l$ suffix. Although it is tempting to see this word as cognate to Yukatek yok'ol "on, above" which are presentin Proto-Tzeltalan * ahk'ol (Kaufman 1972: 93), this is an unlikely possibility as this should be a relationship term in this context. In Wisdom's (1950) Ch'orti word list, ok' is documented as "a break, a dividing in two" which can metaphorically be used as a term referring to a side line of a lineage. In that case, Mak'ab' Chanal would be a descendent of Um Ti' Xok who was a Koxo'p Ajaw. Um Ti' Xok is also represented under the koxo'p ajaw glyph block on the other support of the bench.

The next glyph block contains the spelling **u**-BAT.T528-**b'a** and the text then continues with *yaj k'uhun yax pasaj chan yopat u-BAT.T528-b'a ajaw winikhab' kalomte'* or "he/they are the X of the aj k'uhun of Yax Pasaj Chan Yopat Copan Lord, One K'atun Kalomte". The **u**-BAT.T528-**b'a** collocation, by its syntactical position, is a possessed noun which expresses a relationship between the individual names preceding it and the *aj k'uhun* who is none other than Mak'ab' Chanal. If the BAT.T528 grapheme is **ch'u** then the resulting expression would be **u-ch'u-b'a**

²⁴ The glyph block contains the MUYAL grapheme and a distinctive skull sign with a CHUWEN infixed on the forehead, and percentage signs on the limbs and legs. The name of the sixth Copan ruler on Altar Q consists of a MUYAL grapheme which comes out of the mouth of a jawless skull. Recently, Prager & Wagner (2008: 16-17) identified more examples of Ruler 6's name on CPN 3033, on Stela 28 and Stela 53. On CPN 3033 the name contains the exact same human skull as in the text of Str. 9N-82 Bench with the CHUWEN sign infixed, followed by AK CHAN-na. Clearly, the name of Ruler 6 contained more than one grapheme. Also, Mak'ab' Chanal was keen to indicate that he was a descendent of the Copan ruling line.

which can be transliterated as *u ch'ub'* or *u ch'ub'a[l]*. For *ch'ub'* and its cognates the following entries are found in the dictionaries:

(C.Y.) *k'ub*encomendar, depositar, entregar o dar entregando, ofreciendo,
(M.Y.) *k'ub'*deliver, hand over, give up,
(ChT) *ch'ubin*poner,
(ChR) *ch'ujb'a*ahorrar, guardar, cuidar, depositar, encargar,
(TZO) *k'ub*commission, use a person's services, entrust someone with,
(C.TZE) *cuban*encomendar, secuestrar en otro algo, tomar a cargo.²⁵

Also, *ch'ujb'en* in Ch'orti' means "tenamasta, polletón, ornilla (de tres piedras)/ hearth, fire place (of three stones)" which is cognate to Yukatek *k'óob'en* (Bricker, Po'ot Yah & Dzul de Po'ot 1998: 154). A throne or bench on its supports is similar to the hearthstones and I think that a *ch'u[h]b'(a)* reading in the context of the Str. 9N-82 Bench is a plausible solution. The headdresses indicate the persons on the throne-legs are K'uk' K'awil and Um Ti' Xok who thus literally became the supports of the incumbent *aj k'uhun* sitting on the bench.

On Piedras Negras Panel 3, **a-ch'u-b'i-ji** is transliterated as *ach'ub'ij* which means "you delivered it, you handed it over, you entrusted it etc.", if it is a verbal expression. Another possibility is that it is a derived noun and refers to the rates/commissions ("the delivered thing, the given thing") that the young lords will receive in the palace of the Piedras Negras king.²⁷ Given that *hanal* is a possessed

²⁵ C.Y. (Colonial Yukatek, Barrera Vázquez 1980), M.Y. (Modern Yukatek, Bricker, Po'ot Yah, and Dzul de Po'ot 1998), ChT (Ch'olti', Morán 1935), ChR (Ch'orti', Wisdom 1950), TZO (Tzotzil, Laughlin 1975), C.TZE (Colonial Tzeltal, Ara 1986).

²⁶ This entry and the connections between the throne legs and the *tenamaste* were pointed out to me by Barbara MacLeod (email dated 10 May, 2011). Proved forms in Ch'olan languages indicate that *ch'uhjb'* "to deliver, commission" ultimately goes back to Proto-Mayan *k'uhb'-, while *ch'ujb'en* (Yukatek kóoben) is a descendent of Proto-Mayan k'ojb'-.

There were various nominalising suffixes in Classic Ch'olan which have not yet been thoroughly researched. One of them is -Vj or -ij which derives nouns from verbs such as MAY "to gift" and MAY-yi-ji/mayij "gift, offering, alms". It may be that the same suffix is present in ya-ti-ji, which is usually interpreted as a perfective or resultative verb (MacLeod 2004; Wald 2007), however as Wichmann (2004: 82-83) pointed out it was better interpreted as a possessed nominalised form. He mentioned the example on Copan Stela 2 where the spelling AT-ti-ji occurs in a nominal position. That the suffix is rather -Vj and not just -ij is shown by the examples of the spellings of IL-ji, IL-ja, IL-a-ja and IL-li-a-ja which MacLeod interpreted as transitive perfect participles. As Sanz González noted (2006: 618-630), these forms are similar to the derived transitive verbs interpreted as in perfective status or resultative aspect (MacLeod 2004; Wald 2007). As there is no difference between the forms with or without ergative pronouns, it is more probable that these are all nominalisations whose etymology is the participle found in Tzeltalan languages but lost in Ch'olan (MacLeod 2004; Sanz González 2006: 618-630).

noun it is more plausible that *ch'ub'ij* is a possessed nominal form too. Together they may form a semantic couplet as "your food, your commission".

5. Discussion

The text on Piedras Negras Panel 3 represents a banquet with many participants, among them a group of persons from Yaxchilan standing in front of the king who specifically addresses them. Accepting my solution for the first part of the utterance, we have the following translation:

hi(n) ahanal ach'ub'ij ukab'jiy amam yaxun b'ahlam k'iniy? 2 Kawak 2 Muwan oniy ux winikjiy joyjiy ta ajawle[l] yaxun b'ahlam ukab'jiy itzam k'an ahkul 5 Kib' 19 Mahk hai taliy amam ...

this is your food, your commission, this was the making of your grandfather/ancestor, Yaxun B'ahlam on the day 2 Kawak 2 Muwan, 23 days earlier he appeared in the rulership, this was the making of Itzam K'an Ahkul on 5 Kib' 19 Mahk, he, your grandfather/ancestor, come here ...

At present it is quite difficult to decide on the correct Long Count of the dates mentioned in this conversation. Nevertheless, Ruler 4 would not have referred to himself in the third person and therefore it is likely that the Itzam K'an Ahkul mentioned in the utterance refers to one of the many past rulers of Piedras Negras who used that name.

There are various pairing of Piedras Negras and Yaxchilan rulers where an Itzam K'an Ahkul could have supervised a Yaxun B'ahlam, but neither of the dates matches the Calendar Rounds mentioned in the Panel 3 text. The list of the Yaxchilan rulers is more complete and it has four Yaxun B'ahlam (in the fourth, fifth, seventh and eighth centuries), all of whom were paired with an Itzam K'an Ahkul. What is plausible is that the young lords arrived to the court either as one-time participants during the banquet or to stay there for a longer period of time. The Piedras Negras king reminded them that the arrangement for their participation in the banquet was made by an ancestor (and in this sense it is more plausible that this was a recurrent event). The Piedras Negras ruler indicates that the ancestor was inaugurated by a former Piedras Negras king. The Yaxchilan ruler came from somewhere, but unfortunately here the text is completely eroded and therefore this information is lost, perhaps forever. Nevertheless, the emphasis is on the travel of Yaxun B'ahlam to Piedras Negras akin to the travel of Sak Jukub' Yopat B'ahlam and the young lords.

Interestingly, it was not Ruler 4 who commissioned this message but the last ruler of Piedras Negras, K'inich Yat Ahkul II (birth 750, accession 781, captured in 808). It might be, as Martin & Grube (2008: 153) phrased it, that Panel 3 "harks back to a time when Yaxchilan paid proper respect to Piedras Negras". And when

young princes travelled dutifully to the court of their overlords to spend time there and probably prepared to be docile vassals after their future accession upon their return to their city, just as in the case of La Corona and Calakmul (Martin 2001), and perhaps many other sites in the Classic Maya Lowlands.

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Bibliographical references

Ara, Domingo de

1986 Vocabulario de lengua tzeldal según el orden de Copanabastla, edited by Mario Humberto Ruz. Fuentes para el Estudio de la Cultura Maya, 4. México, D.F.: Universidad Nacional Autónoma de México.

Attinasi, John

1973 Lak T'an. A grammar of Chol (Mayan). Lexicon. Chicago: University of Chicago.

Barrera Vásquez, Alfredo

1980 Diccionario Maya Cordemex. Maya-español, español-maya. Mérida, Yucatán: Ediciones Cordemex.

Baudez, Claude

1994 Maya sculpture of Copán. Norman and London: University of Oklahoma Press

Berlin, Heinrich

1958 El glifo 'emblema' en las inscripciones mayas. *Journal de la Société des Américanistes de Paris* 47: 111-119.

Boot, Erik

2009 The Bat sign in Maya hieroglyphic writing: Some notes and suggestions based on examples from Late Classic ceramics. Manuscript dated to 20 February, 2009.

Bricker, Victoria, Eleuterio Po'ot Yah & Ofelia Dzul de Po'ot

1998 A dictionary of the Maya language as spoken in Hocabá, Yucatán. Salt Lake City: University of Utah Press.

Davletshin, Albert & Dmitri Beliaev

n.d. Classic Maya sign for "scorpion". Manuscript in the possession of the author.

Grube, Nikolai

Observations on the Late Classic interregnum of Yaxchilan. In: Bray, Warwick & Linda Manzanilla (eds.): *The archaeology of Mesoamerica: Mexican and European perspectives*. London: British Museum Press, 116-127.

The orthographic distinction between velar and glottal spirants in Maya hieroglyphic writing. In: Wichmann, Søren (ed.): *The linguistics of Maya writing*. Salt Lake City: University of Utah Press, 61-82.

Fitzsimmons, James

1998 Classic Maya mortuary anniversaries at Piedras Negras, Guatemala. Ancient Mesoamerica 9: 271-278.

Hofling, Charles A.

2000 *Itzaj Maya grammar*. Salt Lake City: University of Utah Press.

Houston, Stephen D.

2004 The Acropolis of Piedras Negras: Portrait of a court system. In: Miller, Mary & Simon Martin (eds.): *Courtly art of the ancient Maya*. New York: Thames and Hudson, 271-276

Hull, Kerry, Michael Carrasco & Robert Wald

The first-person singular independent pronoun in Classic Ch'olan. *Mexicon* 31: 36-43.

Kaufman, Terrence

1972 El proto-tzeltal-tzotzil: fonología comparada y diccionario reconstruído. Centro de Estudios Mayas, Cuaderno No. 5. México, D.F.: Universidad Nacional Autónoma de México.

Kaufman, Terrence & John S. Justeson

2002 A preliminary Mayan etymological dictionary. (<www.famsi.org/reports/01051/index.html>; 09.05.2011).

Kaufman, Terrence S. & William M. Norman

An outline of Proto-Cholan phonology, morphology, and vocabulary. In: Justeson, John S. & Lyle Campbell (eds.): *Phoneticism in Mayan hieroglyphic writing*. Institute for Mesoamerican Studies Publication, 9. Albany: State University of New York, 77-166.

Lacadena, Alfonso

2003 El sufijo verbalizador -Vj (-aj~iij) en la escritura jeroglífica maya. In: González Blanco, Antonio, Juan-Pablo Vita & Jose-Angel Zamora (eds.): *De la tablilla a la inteligencia artificial*. Zaragoza: Instituto de Estudios Islámicos y del Oriente Próximo, 913-931.

2010 Historical implications of the presence of non-Mayan linguistic features in the Maya script. In: Broekhoven, Laura van, Rogelio Valencia Rivera, Benjamin Vis & Frauke Sachse (eds.): *The Maya and their neighbours: Internal and external contacts through time, Proceedings of the 10th European Maya Conference, Leiden, December 9-10, 2005.* Acta Mesoamericana, 22. Markt Schwaben: Anton Saurwein, 29-39.

Lacadena, Alfonso & Søren Wichmann

2004 On the representation of the glottal stop in Maya writing. In: Wichmann, Søren (ed.): *The linguistics of Maya writing*. Salt Lake City: University of Utah Press, 100-164.

Laughlin, Robert M.

1975 The great Tzotzil dictionary of San Lorenzo Zinacantán. Smithsonian Contributions to Anthropology, 19. Washington, D.C.: Smithsonian Institution Press.

MacLeod, Barbara

A world in a grain of sand: Transitive perfect verbs in the Classic Maya script. In: Wichmann, Søren (ed.): *The linguistics of Maya writing*. Salt Lake City: University of Utah Press, 291-326.

Martin, Simon

2001 Life at court: The view from Bonampak. In: Inomata, Takeshi & Stephen D. Houston (eds.): *Royal courts of the ancient Maya: 2. Data and case studies.* Boulder: Westview Press, 201-222.

Martin, Simon & Nikolai Grube

2008 Chronicle of Maya kings and queens: Deciphering of the ancient dynasties of the ancient Maya. London: Thames and Hudson.

Miller, Mary E. & Simon Martin (eds.)

2004 Courtly art of the ancient Maya. New York: Thames and Hudson.

Montgomery, John

1995 Sculptors of the realm: Classic Maya artists signatures and sculptural style during the reign of Piedras Negras Ruler 7. M.A. Thesis. Austin: University of Texas.

Mora-Marín, David

2009 Reconstruction of the Proto-Ch'olan demonstrative pronouns, deictic enclitics, and definitive articles. *Transactions of the Philological Society* 107(1): 98-129.

Morán, Frav Pedro

[1695] 1935 Arte en lengua cholti que quiere decir lengua de milperos. Facsimile edition by W. Gates. The Maya Society Publication, 9. Baltimore: The Maya Society.

Morley, Sylvanus G.

1937-38 *Inscriptions of the Peten.* Carnegie Institute of Washington Publication, 437. Washington, D.C.: Carnegie Institute of Washington.

Prager, Christian & Elisabeth Wagner

2008 Historical implications of the Early Classic hieroglyphic text on the step of Structure 10L-11-Sub-12 at Copan (CPN 3033). Paper presented at the VI Mesa Redonda de Palenque, Arqueología, Imagen y Texto, Palenque, Mexico.

Proskouriakoff, Tatiana

Historical implications of a pattern of dates at Piedras Negras, Guatemala. *American Antiquity* 25(4): 454-575.

Riese, Berthold

The inscription of the sculptured bench of the House of the Bacabs. In: Webster, David (ed.): *The House of the Bacabs, Copan, Honduras.* Studies in Pre-Columbian Art and Archaeology, 29. Washington, D.C.: Dumbarton Oaks Research Library and Collection. 82-88.

Robertson, John, Stephen D. Houston & David Stuart

Tense and aspect in Maya hieroglyphic script. In: Wichmann, Søren (ed.): *The linguistics of Maya writing*. Salt Lake City: University of Utah Press, 259-290.

Sanz González, Mariano

2006 La categoría del tiempo en las inscripciones mayas del período Clásico. PhD Thesis. Madrid: Universidad Complutense.

Schele, Linda & David Freidel

1990 A forest of kings: The untold story of the Ancient Maya. New York: William Morrow.

Stuart, David

Hieroglyphs and archaeology at Copan. *Ancient Mesoamerica* 3(1): 169-184.

2005 The inscriptions at Temple XIX at Palenque: A commentary. San Francisco: Pre-Columbian Art Research Institute.

2011a Notes on a painted text from Palenque. In: *Maya Decipherment*, Februay 11 (http://decipherment.wordpress.com/2011/02/11/notes-on-a-painted-text-from-palenque; 09.05.2011).

2011b Some working notes on Tikal Stela 31. In: *Mesoweb*, (<www.mesoweb.com/stuart/notes/Tikal .html>; 09.05.2011).

Stuart, David & Stephen D. Houston

1994 *Classic Maya place names*. Studies in Pre-Columbian Art and Archaeology, 33. Washington, D.C.: Dumbarton Oaks Research Library and Collection.

Stuart, David, Stephen D. Houston & John Robertson

1999 Recovering the past: Classic Maya language and Classic Maya gods, Notebook for the XXIIIrd Maya Hieroglyphic Forum at Texas, 1999. Austin: Department of Art History, University of Texas.

Teufel. Stefanie

2004 Die Monumentalskulpturen von Piedras Negras, Petén, Guatemala: Eine hieroglyphische und ikonographisch-ikonologische Analyse. PhD Thesis. Bonn: Rheinische Friedrich-Wilhelms-Universität Bonn.

Tunesi, Rafael

Some thoughts about a new vase and an old god. PARI Journal 9(2): 18-23.

Wald, Robert F.

2000 Temporal deixis in Colonial Chontal and Maya hieroglyphic narrative. *Written Language and Literacy* 3(1): 123-153.

Telling time in Classic-Ch'olan and Acalan-Chontal narrative: The linguistic base of some temporal discourse patterns in Maya hieroglyphic and Acalan-Chontal texts. In: Wichmann, Søren (ed.): *The linguistics of Maya writing*. Salt Lake City: University of Utah Press, 211-258.

2007 The verbal complex in Classic-Period Maya hieroglyphic inscriptions: Its implications for language identification and change. PhD Thesis. Austin: University of Texas.

Webster, David (ed.)

1989 The House of the Bacabs, Copan, Honduras. Studies in Pre-Columbian Art and Archaeology, 29. Washington, D.C.: Dumbarton Oaks Research Library and Collection.

Wichmann, Søren

2004 The names of some major Classic Maya gods. In: Graña Behrens, Daniel, Nikolai Grube, Christian M. Prager, Frauke Sachse, Stefanie Teufel & Elisabeth Wagner (eds.): Continuity and change: Maya religious practices and temporal perspective: 5th European Maya Conference, University of Bonn, December 2000. Acta Mesoamericana, 14. Markt Schwaben: Anton Saurwein, 77-86.

2006 Mayan historical linguistics and epigraphy: a new synthesis. *Annual Review of Anthropology* 35: 279-294.

Wisdom, Charles

1950 *Materials on the Chorti language*. Microfilm Collection of Manuscripts on Middle American Cultural Anthropology, 28. Chicago: University of Chicago Library.

Zender, Marc

2004 A study of Classic Maya priesthood. PhD Thesis, Calgary: University of Calgary.